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MODERATING INFLUENCES ON THE FIRM'S STRATEGIC ORIENTATION-PERFORMANCE RELATIONSHIP

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ABSTRACT

This paper is focused on the factors that moderate the relationship between firm's strategic orientation and performance in small and medium-sized firms. Much prior research has focused simply on identifying environmental conditions conducive to the effectiveness of the strategic orientation approach. However, recent research has called for studies focused on investigating internal moderators of the strategic orientation-performance relationship. As a result, we propose a contingency framework, considering how corporate and competitive strategies, top management characteristics, and environmental conditions may moderate this relationship.

Based on a survey of 295 small and medium sized enterprises pertaining to seven manufacturing sectors, our study shows that the positive influence of firm's strategic orientation may be moderated by the environment conditions, the previous experience of top management team, and the corporate and competitive strategies developed by the firm.

Key words: firm's strategic orientation, performance, moderating effects, top management teams characteristics, environmental characteristics, competitive and diversification strategies

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MODERATING INFLUENCES ON THE FIRM'S STRATEGIC ORIENTATION-PERFORMANCE RELATIONSHIP

1. Introduction

In recent years, increasing attention has been given to how companies should respond to the new competitive landscape, which is characterized by trends towards globalization and acceleration of technological change (Ireland and Hitt, 1999). A variety of firm postures and orientations have been suggested. These include behavioral orientations that are more familiar to researchers of the literature on entrepreneurship (Shane and Venkataraman, 2000; Spicer and Sadler-Smith, 2006), as well as corporate stances more typical of a strategic management perspective (Ireland, Hitt, and Sirmon, 2003). Research on entrepreneurship has highlighted the need to explore new business opportunities through innovation, proactive behaviors, and risk-taking decisions (Miller, 1983; Covin and Slevin, 1989; Covin and Slevin, 1991; Kreiser et al., 2002; Messeghem, 2003; Spicer and Sadler-Smith, 2006). From a strategic management perspective, researchers have called attention to the importance of building, protecting, and sustaining competitive advantage through analysis, organizational planning, and long-term vision (Venkatraman, 1989; Cohen and Sproull, 1996; Morgan and Strong, 2003).

Companies facing the current environmental conditions need to adopt simultaneously postures aimed at exploring new business opportunities and behaviors intended to gain and sustain competitive advantage (Hitt et al., 2001). Thus, the contributions of the entrepreneurship and strategic management perspectives are complementary (Ireland et al., 2003) and even inseparable (McGrath and MacMillan, 2000; Meyer and Heppard, 2000), making it difficult to understand research performed in one field without studying the results reported in the other.

Previous studies have used the construct of 'strategic orientation' (SO) to describe a corporate posture that combines the above-mentioned entrepreneurial and strategic behavior traits needed to deal with the current challenges of the competitive landscape (Venkatraman, 1989;

Morgan and Strong, 2003). However, research has focused not only on the concept of firm's strategic orientation (Venkatraman, 1989; Covin and Slevin, 1989; Lumpkin and Dess, 1996), but also on the implications of this orientation for performance (Covin and Covin, 1990; Zahra, 1991; Zahra, 1993; Zahra and Covin, 1995; Lumpkin and Dess, 1996; Wiklund, 1999; Morgan and Strong, 2003, among others). Generally, it has been argued that a firm's strategic orientation has a positive impact on performance. However, the idea that a strategic orientation is universally beneficial may be overly simplistic. Many studies have acknowledged the importance of considering contingent influences to model the strategic orientation-performance relationship effectively (Covin and Slevin, 1991; Zahra, 1991; Lumpkin and Dess, 1996, 2001; Miles et al., 2000; Entrialgo et al., 2001, among others). Contingency theory suggests that congruence or fit among key variables (external and internal) is critical for obtaining better performance levels.

Much prior research has focused simply on identifying environmental conditions conducive to the effectiveness of the SO approach (Covin et al., 2006). Recent research has called for studies focused on investigating internal moderators of the SO-performance relationship (Lumpkin and Dess, 1996; McMahan, 2001; Covin et al., 2006, among others). It has been suggested that the relationship between strategic orientation and performance may be stronger when companies pursue diversification and differentiation strategies that provide access to new business opportunities (McMahan, 2001; Lumpkin and Dess, 2006). Finally, companies with a strong strategic orientation, in which the characteristics of managers (age, education, etc.) are more congruent with a combination of entrepreneurial and strategic postures, may achieve higher performance levels (Entrialgo, 2002; Gabrielsson, 2007).

While the importance of contingency analysis of the relationship between strategic orientation and performance is widely recognized, very little research has simultaneously addressed external and internal moderating influences on the SO-performance relationship. To fill this gap, we propose a contingency framework for analyzing the relationship between a firm's strategic orientation and its performance, considering how corporate and competitive strategies, top

management characteristics, and environmental conditions may moderate this relationship (see **Figure 1**).

[Insert Figure 1 about here]

To test this model, we chose small and medium-sized enterprises (SMEs) as a sampling framework, because firms of this size (i.e., employing 10 to 250 individuals) and age (considerably older than start-ups) provide a more direct empirical test of this link than do other companies. SMEs, like larger companies, generally face competitive pressures to adopt a strategic orientation. However, SMEs lack the amount of slack resources and hierarchical administrative systems that can help companies manage their decision-making process (Lubatkin et al., 2006). In the absence of these mechanisms, SMEs have to rely more on the abilities of their top management team (TMT). Consequently, studying the contingency effects of the characteristics of TMT members as well as of their strategic decisions is especially appropriate in SMEs. Managers of SMEs are closer to the firm's existing competencies and to its markets. This circumstance potentially enables them to discover, evaluate, and champion new market opportunities more directly. Moreover, small and medium-sized enterprises represent a key source of growth for national economies and are confronted with the turbulent and challenging environments in which proactive orientations could well lead to success (Alpkan et al., 2007). For these reasons, SMEs represent an appropriate and interesting context for studying the contingency model of the strategic orientation-performance relationship.

The paper is divided into five sections. First, the literature on strategic orientation is introduced and reviewed to determine how it can contribute to achieving better performance levels. Next, a contingency model is introduced to provide a more complete understanding of how external and internal variables may moderate the strategic orientation-performance relationship. The following section describes the methodology used for the empirical analysis and the measurement of dependent and independent variables. Finally, the main results are discussed, and conclusions and suggestions for further research are presented.

2. Strategic orientation and performance

According to the entrepreneurship literature, companies need to engage in entrepreneurial behaviors to identify and exploit business opportunities to grow and create value (Shane and Venkataraman, 2000; Spicer and Sadler-Smith, 2006). However, while identifying and exploiting business opportunities can create temporary competitive advantages, firms may fail to sustain these competitive advantages effectively (Ireland et al., 2003). Understanding the reasons for these differentials among companies' wealth creation requires studying also the strategic traits of firms' actions through which they develop, exploit, and sustain competitive advantages. Therefore, entrepreneurial and strategic management perspectives jointly contribute to explaining the strategic orientation needed to achieve and sustain competitive advantages.

Based on earlier conceptualizations (e.g., Venkataraman, 1989; Covin and Slevin, 1989; Lumpkin and Dess, 1996; Morgan and Strong, 2003), the firms' strategic orientation is a multidimensional construct involving both entrepreneurial orientations (innovative, proactive, aggressive, and risk-taking) and strategic postures (information analysis and processing and future orientation).

Miller (1983) suggested that an entrepreneurial firm is one that engages in product market innovations, undertakes somewhat risky ventures, and is first to come up with innovations. Several researchers have agreed that entrepreneurial orientation is characterized by innovation, risk-taking, and proactiveness (e.g., Covin and Slevin, 1989; 1991; Kreiser et al., 2002; Messeghem, 2003; Spicer and Sadler-Smith, 2006; Gabrielsson, 2007). Other authors propose another behavioral feature to characterize entrepreneurial orientation. In markets characterized by turbulence and competitive intensity, normative studies recommend aggressive behavior which generates performance payoffs in sales growth and profitability (Covin and Slevin, 1991). Competitive aggressiveness refers to how firms relate to competitors, that is, how firms respond to trends and demand that already exist in the marketplace (Lumpkin and Dess, 1996). All these dimensions,

innovation, risk-taking, proactiveness, and aggressiveness, allow companies to seek new business opportunities and develop competitive advantages.

However, firm's strategic orientation also implies the adoption of some behavioral traits aimed at the effective exploitation and sustainability of competitive advantages. First, firm's behavior should include the adoption of internal systems and procedures that facilitate the development and execution of competitive strategy to achieve firm's objectives (Morgan and Strong, 2003). The analytical dimension reflects a firm's knowledge-building capacity and enabling processes for organizational learning (Cohen and Sproull, 1996). Second, under significant environmental uncertainty conditions, a long-term vision is a strategic imperative for securing a competitive edge in the marketplace. Such a future orientation reduces corporate anxiety about competitive challenges and provides a foothold for understanding the pattern and extent of potential changes (Morgan and Strong, 2003). These two dimensions of firms' strategic orientation, analysis and futurity, help identify and develop relatively sustainable competitive advantages (Venkatraman, 1989).

Although some previous studies have analyzed the effects of particular dimensions of strategic orientation on performance (Bromiley, 1991; Doyle and Hooley, 1992; Wright et al., 1995; Goll and Rasheed, 1997), generally researchers agree that firm's strategic orientation is represented by the aggregated sum of its dimensions (Covin and Slevin, 1989; Wiklund, 1999; Miles et al., 2000; Kreiser et al., 2002). According to these authors, a firm with a strong strategic orientation is characterized by aggressive competitive behavior, the acquisition and analysis of information to improve decision-making, proactive attitudes, a future-oriented vision, and a strong propensity for risk-taking.

Moreover, there is also reason to believe that strategic orientation as a whole can have universal positive performance implications (Wiklund and Shepherd, 2005). The shortening of product and business model life cycles is a general tendency in today's environment. Consequently, the future profit streams from existing operations are uncertain, and businesses must constantly seek

out new opportunities and build sustainable competitive advantages. A strategic orientation can assist companies in this process. Firms with this strategic posture are likely to enjoy first-mover advantages and to capitalize on emerging opportunities. Hence, firms with a strategic orientation can introduce new goods and services ahead of their competitors, establish industry standards, or control access to the market by dominating distribution channels, gaining sustainable competitive advantages that ultimately lead to better performance levels (Wiklund, 1999). Empirical evidence supports the assertion that strategic orientation leads to superior firm performance (Zahra and Covin, 1995; Wiklund, 1999; Poon et al., 2006). Thus Hypothesis 1 can be stated as follows:

H1: Strategic orientation will have a positive impact on firms' performance.

3. A contingent view of the strategic orientation-performance relationship

Although researchers have agreed on the positive influence of firms' strategic orientation on performance, they also insist on the importance of considering the moderating effects of other variables to achieve a greater understanding of this relationship (Wiklund and Shepherd, 2005). Empirical research has focused mainly on external contingencies, showing that the effect of strategic orientation on performance varies with environmental characteristics (Covin and Slevin, 1989; Zahra, 1991; Zahra and Covin, 1995). For example, Covin and Slevin (1989) found that strategic orientation was associated with performance among small firms operating in hostile environments. In contrast, internal contingencies, like diversification strategies, competitive strategies, and TMT characteristics, have been highlighted theoretically, but empirical evidence is still scarce.

This paper adopts a more complete framework, considering both external and internal contingencies. The empirical evidence obtained in this study will enable the testing of previous theoretical arguments, especially those related to internal factors, and will provide a better understanding of the relationship between firms' strategic orientation and performance. The following sections explain the specific effects of the contingency variables.

External contingency variables: environmental characteristics

A firm environment comprises those forces and elements, external to the organization's boundaries, which affect the firm's actions and results. Empirical evidence and conceptual arguments suggest that more strongly strategic orientations are not equally suitable to all kinds of environments (Covin and Slevin, 1989; Miles et al., 2000). Organizations operating in hostile environments often obtain better results when they respond to challenging environmental conditions by taking risks, exhibiting proactive behaviors, and planning to cope effectively with the adverse forces prevalent in dynamic and complex environments (Miles et al., 2000). However, in benign environments, the adoption of risk-taking and aggressive behaviors to gain or maintain competitive advantage is not necessary.

Consistent with the above reasoning, several studies indicate that the relationship between strategic orientation and firm performance is moderated by environmental conditions (Covin and Slevin, 1989, 1991; Covin and Covin, 1990; Zahra, 1991; Lumpkin and Dess, 1996; Miles et al., 2000; Ibeh, 2003). In highly complex, dynamic, and hostile environments, a strategic orientation helps to raise the level of firm performance because the adoption of risk-taking and proactive behaviors may be necessary for survival in these environments (Mintzberg, 1973; Covin and Slevin, 1989). Therefore, managers promote firm behaviors and select optimal strategies for a given environment, and firm performance is then dependent on the interaction between strategic orientation and environment (Miles and Snow, 1978).

According to these arguments, the second hypothesis presented here states that:

H2: Higher levels of environmental hostility will increase the positive effects of a firm's strategic orientation on performance.

Internal contingency variables: TMT characteristics and SME strategies

The relationship between firm strategic orientation and performance may also be moderated by internal factors such as: (i) the characteristics of the top management team and (ii) the competitive and diversification strategies developed by the firm.

The ability of top managers to identify and exploit business opportunities, as well as to sustain the competitive advantages of their companies, can increase the potential impact of the firm's strategic orientation on performance. These abilities are related to the experiences, approaches, values, and expectations of the members of the TMT (Entrialgo, 2002). In addition, the fit between strategic decisions (i.e., competitive and diversification strategies) made by top management teams and firm's strategic orientation could generate a multiplicative effect on performance (Covin and Slevin, 1991; Entrialgo et al., 2001).

The moderating effect of TMT characteristics

The impact of top management team characteristics on firm management has been analyzed from two different perspectives. Some researchers have examined the linkage between managerial characteristics and performance (Child, 1974; Norburn and Birley, 1988; Virnay and Tushman, 1986; Poon et al., 2006; Vyakarnam and Handelberg, 2005), while others have emphasized the link between specific managerial characteristics and firm strategic behavior (Hofer and Davoust, 1977; Kerr, 1982; Wiersema, Van der Pol, and Messer, 1980). However, few studies have integrated these approaches.

It is generally acknowledged that strategic decisions are influenced by the beliefs, values, and management philosophies of the strategists (Covin and Slevin, 1991). Management style and behavior are well determined by level of formal education, which represents an individual's knowledge and skill base (Hambrick and Mason, 1984). Therefore, firms managed by executives with higher levels of education will have access to better cognitive skills and qualities, which result

in greater abilities to process information and to discriminate among a wide variety of alternatives (Wiersema and Bantel, 1992; Papadakis and Barwise, 2002).

Furthermore, managers with experience in other companies or sectors have a wider vision of strategic decision-making, use a broader variety of information sources, and have more widely differentiated capabilities (Lee and Park, 2006). Managers with these characteristics tend to make more changes in structure, procedures, and people than do chief executives promoted from within the firm (Carpenter, 2002). In contrast, managers who have developed their careers in one organization can be assumed to have a relatively limited perspective when faced with an unprecedented problem (Hermann and Datta, 2006).

From a contingency approach, better performance would be associated with firms that more completely align the characteristics of their managers with their strategic orientation. The absence of this coalignment could result in a conflict between firm's resources and capabilities on the one hand and managerial decisions on the other, which would have a negative impact on performance (Entrialgo, 2002). Thus, managers with higher levels of education and experience in other companies or sectors can be expected to generate a wider range of creative solutions when faced with complex problems (Hambrick and Mason, 1984; Hitt and Tyler 1991; Wally and Becerra, 2001; Herrmann and Datta, 2005). These managers' characteristics can be expected to strengthen the positive relationship between firm's strategic orientation and performance.

As a result, it can be hypothesized that:

H3: Higher educational levels of the TMT will increase the positive effects of firms' strategic orientation on performance.

H4: Higher levels of previous experience of the TMT in other companies or sectors will increase the positive effects of firms' strategic orientation on performance.

The moderating effect of competitive and diversification initiatives of the top management team

Companies looking for new opportunities and sustainable competitive advantages should implement diversification and competitive initiatives that provide access to such opportunities (Entrialgo et al., 2001). Companies that do this should achieve higher levels of performance than those that do not implement appropriate strategies to benefit from new business opportunities. Therefore, from a contingency perspective, it is also important to address the potential moderating effect of corporate strategic initiatives on the relationship between firms' strategic orientation and performance.

Generally, strategies that emphasize innovation and new product development (differentiation strategies) have been associated with a stronger strategic orientation, whereas strategies based on cost control have been related to more defensive postures (Covin and Slevin, 1991; Zahra and Covin, 1995; Lumpkin and Dess, 2006). In fact, a differentiation strategy relies on strong marketing abilities, product engineering skills, and creative ideas, which are more closely associated with a strategic orientation. In contrast, cost-focused leadership strategies are related to more defensive and conservative orientations (Miles and Snow, 1978; Segev, 1989), because they emphasize process engineering skills, tight cost controls, and efficient distribution systems (Porter, 1980). These differences among competitive strategies suggest that firms seeking to renew or strengthen themselves by adopting a more strategic orientation should achieve better performance when their managers implement differentiation strategies focused on innovation and creativity (Entrialgo et al., 2001). As a result, Hypothesis 5 states that:

H5: Higher emphasis on differentiation strategies will increase the positive effects of firms' strategic orientation on performance.

On the other hand, the entrepreneurship literature argues that strategic orientation is accompanied by new-venture activity (Miller, 1983), which may imply a diversification or internationalization strategy for the firm. Companies with stronger strategic orientations are usually

more innovative, both in products and processes, and consequently are more likely to benefit from an extensive technological knowledge base that allows them to diversify towards a wide range of markets and businesses (Reed and Luffman, 1986; Silverman, 1999).

From a contingency perspective, the impact of the firm's strategic orientation on performance should be magnified by the implementation of initiatives that take advantage of new opportunities existing within new businesses (diversification) or new markets (internationalization), where they can exploit existing capabilities as well as access new ones. According to this, ambitious diversification strategies require a more strongly strategic posture to facilitate the achievement of growth goals and subsequently improve firm performance (McMahon, 2001). In contrast, companies pursuing more conservative or defensive strategies have a limited range of business opportunities and thus exhibit less proactive behaviors and achieve lower performance levels (Covin and Slevin, 1991).

Consequently, strategic orientation should be more positively related to firm performance among companies that pursue diversification strategies and new business opportunities than among companies that are not interested in growing outside their core businesses. As a result, Hypothesis 6 can be stated as:

H6: Higher emphasis on diversification strategies focused on the exploitation of new business opportunities (product and market diversification strategies) will increase the positive effects of firms' strategic orientation on performance.

4. Method

Sample

Data were obtained from a mail survey of companies in seven sectors that make an important economic and employment contribution in the area of the Valencian Community in Spain (furniture; textiles; tiles and ceramics; road transportation; food processing; machine-tool producers; and shoe manufacturing). The study was introduced by a letter from the Chamber of

Commerce of Valencia, explaining the objectives of this research and asking managers to participate by responding to a questionnaire. In 2003, we sent a questionnaire to 2000 senior-level managers who were very likely to be involved in the decision-making process in their companies. During the following three months, a series of phone reminders were provided to increase the response rate.

We obtained primary data from 301 companies in seven industries. Six questionnaires were unusable because the research instrument was inadequately completed. Thus, a total of 295 questionnaires were valid for purposes of analysis. The response rate obtained (14.75%) is comparable with that in other studies adopting a similar research design (Entrialgo, 2002).

The sample was composed of small and medium-sized companies in traditional industries of the Valencian Community (Spain), which are mature and fragmented in nature. Hence, the effect of industrial sector on performance has been somewhat controlled for by selecting companies operating in markets with low growth rates.

Tables 1 and 2 summarize the characteristics of the companies included in the sample, as well as the distribution of companies across the seven sectors.

[Insert Table 1 about here]

[Insert Table 2 about here]

Method of analysis

The importance of strategic orientation in predicting performance and the strength of the moderating influences on this relationship were tested using a moderated regression analysis approach. Moderated regression analysis is the most widely used technique for testing contingency effects because it allows interaction terms, which are implied in all contingency relationships, to be directly examined (Covin and Slevin, 1989; Covin et al., 2006). Interaction effects are significant if they explain a significant portion of the variance in the dependent variable. The significance of interaction effects is tested by regressing the dependent variable (performance) on the independent

variable (strategic orientation), the hypothesized moderator variables (environmental turbulence perception, use of diversification and competitive strategies, and top management team characteristics), and the cross-products of independent variables and moderator variables. If the inclusion of interaction terms significantly increases the power of the regression equation, a contingency effect exists. Change in R^2 and F tests of statistical significance are evaluated.

Since the regression equation included both the individual predictors and the cross-product terms, multicollinearity was a concern. Mean-centered data were used to minimize this potential effect.

Measurement of variables

Dependent variable: firm performance

With regard to the performance variable, a subjective approach was used. Subjective measures of performance were chosen over objective data because small and medium-sized firms are often very reluctant to provide financial data. This type of measure has been used in multiple studies focused on the strategic orientation-performance relationship (Covin and Covin, 1990; Miles et al., 2000; Kumar et al., 2001; Jennings et al., 2003; Poon et al., 2006). Moreover, previous studies that have used both subjective and objective measures have found a strong correlation between the two approaches (see, for example, Venkatraman and Ramanujam, 1986).

Our performance construct includes five items which reflect the dual nature of this variable, including both financial and non-financial measures of firms' performance. A five-point Likert scale was used, ranging from 1 (much lower than competitors) to 5 (much higher than competitors). Some authors recognize the multidimensional nature of firm performance and suggest that traditional accounting measures (sales growth, market share, and profitability) and non-financial measures should be used together to assess how strategic orientation is related to firm performance (Lumpkin and Dess, 1996; Zahra, 1993; Ghobadian and O'Regan, 2006). The values of the performance variable are taken to be the mean of the scores for each item.

Independent variables:

Strategic Orientation (SO)

The concept of the strategic orientation (SO) scale is based on an initial list of twelve items related to five dimensions (see Table A.1. in the Appendix): aggressiveness, analysis, future orientation, proactiveness, and risk propensity. The specific items of this scale were adapted from existing instruments (Venkatraman, 1989; Covin and Slevin, 1989; Lumpkin and Dess, 1996; Morgan and Strong, 2003).

Respondents were asked to characterize their firm's SO in terms of these twelve items, and the average rating was used as the firm's SO score. To assess the validity of this construct, a factor analysis was performed. In exploratory factor analysis, the factor loadings for the items included in the SO scale indicated the existence of four dimensions. Two items showing factor loadings lower than 0.60 were dropped from the scale: one of these items was related to the futurity dimension and the other one to the risk-taking dimension. Next, the remaining set of items was subjected to Confirmatory Factor Analysis (CFA) using the EQS¹ structural equation modeling software to assess the validity of the construct and the overall model fit for the four-factor solution (Bentler, 1995). A diagram of the final scale and the items included in each dimension, as well as the fit indices for the strategic orientation scale are displayed in the Appendix (Figure A.2.). The scale exhibits high levels of convergent and discriminant validity, and the four subdimensions have levels of composite reliability near or above the recommended level of 0.70² (see Table A.3. in the Appendix).

We did not expect to find differences among the impacts of the several dimensions of SO on performance. Aggregated measures of SO can be effectively used in organizational research when a different relationship is not expected between the dimensions of a construct and other key variables being examined in a particular research model (Kreiser et al., 2002). Therefore, the mean ratings on the items were used as the firm's strategic orientation scores, in accordance with the work of other authors (Miller, 1983; Covin and Slevin, 1989; Wiklund, 1999; Miles et al., 2000; Covin et al.,

2006). A firm with a strong strategic orientation would therefore exhibit high scores on proactiveness, aggressiveness, risk-taking, and strategic analysis.

Moderator variables

External factors are included in the variable ‘environmental turbulence perception’ (TURBULENCE), calculated as the mean of the respondents’ assessment of their perceptions of five items related to the complexity, dynamism, and uncertainty of their environment. A five-point Likert scale was used for each item. Although firms in the study sample mainly operate in mature sectors with low growth rates, organizational responses to external events are based on decision-makers’ perceptions of environmental conditions. Some differences can therefore be expected in managers’ perceptions of changes in their environment as opposed to the actual, objectively determined, environmental conditions (Sawyer et al., 2003).

Internal factors include four variables which relate to TMT characteristics as well as the strategic decisions made by these managers. LEVEL OF EDUCATION is measured as the percentage of managers with higher education. EXPERIENCE of the TMT is measured as the percentage of managers with previous managerial experience in other companies or sectors. COMPETITIVE STRATEGY is an index composed by four items reflecting managers’ preference for cost efficiency on the one hand, and for differentiation on the other hand: (i) two items focused on the managers’ perception about their efforts on reducing production costs, and on the improvement of processes to lessen quality-control costs, in comparison with their competitors (cost efficiency position); (ii) two items related to the managers’ perception about marketing and after-sales investments in comparison with their competitors (marketing differentiation position). Cost-efficiency items were reverse-coded, so that higher values in all the four items indicated the adoption of differentiation strategies. Then we calculated the mean of the four items to obtain a measure of the competitive strategy. DIVERSIFICATION STRATEGY is an index that reflects the importance of product and market diversification strategies in the growth of the firm during the last years.

Measurement items of the dependent and independent variables, as well as their construct reliability (Cronbach's alpha) are displayed in the Appendix (Table A.4).

Control variables

Some authors have pointed out that it is necessary to control for industry life-cycle stage and degree of industry concentration, because these aspects may influence the degree of strategic orientation which is suitable in each context (Covin and Slevin, 1991; Lumpkin and Dess, 1996). In this paper, these influences have been controlled for by selecting a sample of firms that are operating in sectors with similar characteristics of maturity and fragmentation. The sectors analyzed in this paper can be classified as mature and fragmented sectors because their annual growth rates are below 10% and their concentration indexes are low.

Company size and age have also been found to affect organizational processes and performance (Covin and Covin, 1990; Wiklund, 1999; Kumar et al., 2001; Johnsen and McMahon, 2005; Covin et al., 2006; Poon et al., 2006). Therefore, these variables were also included as controls. Respondents were asked how many individuals were working in the company at the time of the survey, to control for the effect that company size could have on the strategic orientation-performance relationship. Finally, respondents were asked for the year their company was founded, to control for company age.

5. Statistical analysis and discussion

Before running the main statistical analysis, the correlation matrix of independent and moderating variables was examined. Most of the correlations among variables are modest. Furthermore, most of the variance-inflation factor (VIF) values are close to 1. The largest VIF value is 1.468, which is well below the usual cut-off value of 10 (Hair et al., 1999). This evidence reduces concerns about multicollinearity problems. **Table 3** shows the correlation matrix and some descriptive statistics.

[Insert Table 3 about here]

Hierarchical regression analysis was used to introduce the variables into the model. In all equations, the control variables were entered before the other independent variables to partial out their effects from the relationships of primary interest. The hypotheses were tested using the moderated regression analysis technique recommended by Arnold (1982). To determine whether the strategic process variables have distinct or overlapping moderating effects, these effects were tested in separate models for each hypothesis as well as in a full model including all the variables in this study. The analysis was conducted using the SPSS 14.0 software, and the results are shown in **Table 4**.

[Insert Table 4 about here]

Model 1 is the base model containing only the control variables. Consistent with the results of Wiklund and Shepherd (2005), Johnsen and McMahon (2005), and Poon et al. (2006), company size was found to have a positive effect on performance. However, company age does not significantly predict performance levels.

Model 2 contains results pertaining to the main effect of SO on performance (Hypothesis 1). In accordance with earlier studies (Zahra and Covin, 1995; Wiklund, 1999), the results of this study show that there is a significant, direct, and positive relationship between strategic orientation and performance, supporting Hypothesis 1. This result suggests that a firm performance depends on the extent to which the organization is able to scan potential opportunities in the competitive market and make the first move, being proactive, anticipating other competitors, and applying comprehensive decision-making processes. With regard to the control variables, only company size has a significant but marginal influence on performance.

To study the moderating effects of external and internal factors on the SO-performance relationship, Models 3 to 7 focus on the interaction terms. Model 3 tests the hypothesis 2, which is focused on the effect of environmental variables on the relationship between SO and performance. It has been argued that a strategic orientation is especially well suited to turbulent and hostile environments (Covin and Slevin, 1989 and 1991). The results of this study support Hypothesis 2. In

agreement with previous empirical work (Covin and Slevin, 1989; Covin and Covin, 1990; Zahra and Covin, 1995; Miles et al., 2000), our results show that SO has a more positive effect on performance when companies are operating in environments with a relatively high level of turbulence. As for the control variables, larger companies achieve higher performance levels than smaller ones, but company age does not seem to have any effect on performance.

With regard to the moderating effects of managerial team characteristics (see Table 4: Models 4 and 5), we hypothesized that level of education (Hypothesis 3) and previous experience of members of the top management team in other companies or sectors (Hypothesis 4) should strengthen the relationship between a firm's strategic orientation and its performance. On the one hand, although educational level has been positively associated with cognitive abilities (such as information-processing effectiveness or tolerance for ambiguity), which should increase the effects of the strategic orientation, the results of Model 4 do not show a significant moderating influence of managers' educational level on the existing relationship between firm's SO and performance. We expected that executives with higher levels of education would have greater cognitive abilities to manage complex situations and be more open to change, which could strengthen the positive benefits of strategic orientation over performance. However, our results do not allow us to confirm the hypothesis 3.

On the other hand, the knowledge acquired through the accumulation of a variety of managerial experiences (Model 5: Hypothesis 4) is highly significant, but, contrary to expectations, the effect on its interaction with a firm's SO on performance was negative. This result may suggest that a greater quantity and diversity of experiences within the managerial team in SMEs makes the behavioral integration of the management team more difficult. Without such behavioral integration, the team can fail to synchronize the social and task processes typically associated with firms' strategic orientation. Furthermore, cognitive conflict in such teams may prevent them from exchanging information effectively and making decisions jointly (Lubatkin et al., 2006). However, a TMT with more similar experiences can promote a deeper understanding of the team's existing

knowledge base, because it usually benefits from a greater degree of cohesion among the individual team members, which may favor the positive effect of SO on performance.

The study also explored the moderating effects of diversification initiatives and competitive strategy on the relationship between firm's SO and performance (Table 4: Models 6 and 7).

Hypothesis 5 is supported by the data in Model 6. The results reveal a significant and positive beta for the 'SO x Competitive Strategy' interaction term, indicating that SO has a more strongly positive effect on performance when differentiation strategies are used by companies. Differentiation strategies have usually been related to strategic orientation. Moreover, in mature and fragmented sectors, like those included in the study sample, cost advantages are difficult to achieve and maintain because of the absence of economies of scale. In addition, technologies and know-how are widely disseminated, which makes it difficult to develop process innovations that could provide a significant cost advantages. In fragmented industries, efficiency is a key factor in maintaining firm competitiveness, but rarely an important source of competitive advantage. As a result, strategically oriented companies (operating in mature and fragmented industries) that use their proactiveness to develop strategic and marketing innovations (competitive strategies based on differentiation) should achieve higher levels of performance than firms following cost-focused leadership strategies based on improvements in production processes and on reduction of production costs. With regard to the control variables, only company size has a significant but marginal influence on performance.

Model 7 contains the results related to Hypothesis 6. We expected that firms characterized by strategic orientation that were using active diversification strategies should achieve higher levels of performance than companies that were not undertaking such initiatives. The results of Model 7 support this hypothesis. When operating in a mature business which is characterized by low growth rates, companies with strategic postures appear to look for new opportunities by means of expansion into new products and new markets (diversification and internationalization strategies) to improve their performance.

Finally, Model 8 in Table 4 contains the overall set of variables. The model attains an improvement in R^2 over the other models, offering a better explanation of the SO-performance relationship than the models with each of the interaction terms. When examined using the full model, the positive impact of a firm's strategic orientation on performance levels is confirmed. The previously significant interaction effect between SO and Competitive Strategy disappears, while the other moderating effects remain significant. Apparently the three significant interaction terms explain overlapping portions of the variance in performance, with the predictive power of the 'SO x Competitive Strategy' interaction being largely captured by the other effects. However, we observe that the Competitive Strategy variable has a direct and positive impact on performance levels. These results indicate that differentiation leads to better results in mature and fragmented industries, but does not significantly strengthen the positive impact of SO on performance. It is also important to highlight that the interaction between TMT experience and SO is considerably more significant than in the other seven models. This result reflects that a firm's strategic orientation produces better results when TMT members have similar previous experiences and therefore can achieve behavioral integration. Finally, the control variables (age and size) are not statistically significant in the full model.

6. Conclusion, limitations, and areas for further research

This paper aims to contribute to the literature that supports the potential advantages of strategic orientation of firms on performance and, at the same time, represents an attempt to improve our understanding about the importance of alignment between processes developed by firms to take decisions and environment, strategic actions and characteristics of top managers.

This research makes two important contributions to entrepreneurship research. First, it supports the importance of considering the findings from an upper-echelons perspective on entrepreneurship research. Studies from an upper-echelons perspective have analyzed how TMT characteristics influence the strategic choices made by companies and ultimately have an impact on performance. However, very little is understood about how the composition of TMT influences the

effectiveness of strategic orientations. Therefore, the focus of the present research on the Strategic Orientation of firms tries to provide a more complete understanding of the role of top managers as moderators of the SO-performance relationship. Our findings show that TMTs whose members have previous experience in other companies or industries seem to be less integrated and therefore may fail to resolve conflicts effectively, share perceptions, and interact to develop new ideas, thereby diminishing the positive impact of strategic orientation on firm's performance. The results of this study also provide evidence that achieving congruence between managers' decisions (corporate and competitive strategies) and a firm's strategic orientation leads to a significant improvement in firm results.

Second, the value of adopting a strategic orientation is largely determined by the characteristics of the environment. Dynamic environments are associated with high rates of change in market trends and industry innovation and thus opportunities become abundant. Under such conditions, firm performance should be highest for those firms that have an orientation pursuing new opportunities, emphasize effective information seeking, and innovate to anticipate future market needs. Therefore, the relationship between SO and performance may apparently be more complex than a simple main-effects relationship.

This paper also has important implications for managers. These findings indicate that firms whose managers promote an SO—that is, a posture that combines aggressiveness, proactiveness, strategic analysis of information, and risk-taking behaviors—maintain better performance levels than companies not oriented toward these types of behavior. Strategic orientation can be used as a mechanism to overcome constraints imposed by limited resources in SMEs and to take advantage of new opportunities arising from challenging environmental conditions. It is under such conditions that managers can really benefit from being proactive and from pursuing risky new initiatives, thus differentiating their company from competitors. This positive effect of strategic orientation on performance is enhanced by the managerial team benefits derived from the behavioral integration which can be achieved with executives with similar prior experiences. Accordingly, these findings

could lead to more informed corporate policies regarding executive staffing, development, and TMT composition.

Despite these contributions, the present study has some limitations. First, the study was conducted with empirical data collected during 2003 from SMEs operating in mature and fragmented industries in the Valencian Community (Spain). Generalizations to other countries and other industries should be made with caution, especially for those aspects that could vary in different settings, such as the characteristics of the environment. The comparison of these results with findings in other settings could provide interesting contributions to the understanding of the context in which a strategic posture leads to better performance.

Secondly, because of the absence of objective data, this study relied on subjective measures of key variables. Although efforts were taken to guard against biased responses, this study is subject to potential weaknesses associated with the use of perceptual data. In a retrospective view, however, the use of multiple respondents per organization might have been preferable, and thus inter-respondent reliability could have been assessed.

Finally, some of the limitations of this study suggest further research areas. This study relies on subjective measures of firm's performance. In future studies, these measures could be combined with other objective measures of performance from secondary data sources. Such measures could include accounting indicators such as sales growth, market share, and profitability, as well as other elements related to customer satisfaction. This approach could allow comparison of the results from objective and subjective measures of performance, as well as analysis of the different impacts of strategic orientation on financial and non-financial outcomes.

In contrast to some earlier literature, this study did not find a moderator effect of the educational level of top managers on the SO-performance relationship. Although the measures used here were similar to those used in earlier studies, a more fine-grained approach to the measurement of educational level may be necessary. Future studies, for example, might measure the exact nature of educational specialization. Hitt and Tyler (1991) and Wiersema and Bantel (1992) found that the

type of academic degrees held by executives influenced their strategic decisions. For example, managers with a science and engineering background were more concerned with progress, invention, and improvement, and as a result those disciplines might be more strongly associated with SO than disciplines such as the arts, law, or business.

It remains an interesting empirical question whether the findings presented here could be generalized to larger companies. It might be expected that these findings could be replicated in larger companies, given that upper-echelon theory has been associated primarily with such companies. Unlike SMEs, the performance of larger companies is often driven by a broader set of influences, such as multiple product lines and markets, as well as more complex organizational systems, which make their decision processes more vulnerable to organizational impediments. Moreover, the influence of TMT actions in larger companies may be confounded by external governance pressures from an independent board of directors. Therefore, it would be appropriate to encourage additional research of this nature within larger companies.

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Notes

¹ EQS 6.1. for Windows (EQS - Structural Equation Modeling Software). © Peter M. Bentler (1985-2005). Distributed by Multivariate Software, Inc.

² To assess the dimensionality and convergent validity of the scale, we run a confirmatory factor analysis. All factorial loadings had acceptable magnitudes (higher than 0.6) and were highly significant with t-values greater than 3.291 ($p < 0.001$). Moreover, the Bentler-Bonett coefficient for our scale exceeded the recommended value of 0.9, demonstrating convergent validity (Bentler, 1995). To assess discriminant validity, we conducted a correlation analysis. The four dimensions of strategic orientation exhibit correlations below 0.90. We can therefore affirm that the latent variables explain different concepts and therefore our scale possesses discriminant validity.

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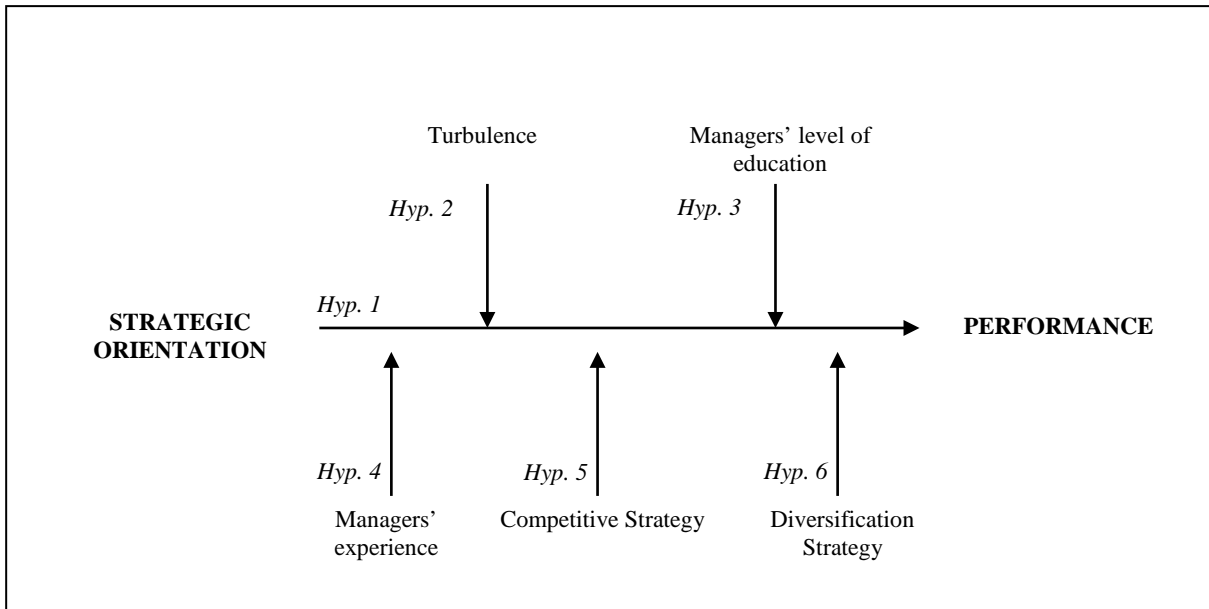
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FIGURES

Figure 1: Contingency model of relationship between strategic orientation and performance.



TABLES

Table 1: Main characteristics of companies included in the sample.

Characteristics of companies (N=295)	Mean	Standard Deviation	Median
Percentage of international sales	38.29	27.43	30
Degree of internationalization (number of countries)	15	21.91	6
International experience (number of years)	13.94	11.37	12
Diversified company (yes/no)	0.16	0.37	0
Degree of diversification (number of different businesses)	1.88	1.66	1
Number of employees (mean)	60.05	127.42	30.00

Table 2: Distribution of the sample across industrial sectors.

Sector	Frequency	Percentage
Food processing	44	14.9
Shoe manufacturing	40	13.6
Tiles and ceramics	36	12.2
Machine-tool producers	47	15.9
Furniture	51	17.3
Textiles	39	13.2
Road transportation	38	12.9
Total	295	100

Table 3: Descriptive statistics and correlation matrix.

Variable	Mean	Standard deviation	1	2	3	4	5	6	7	8	VIF
1. EDUCATION-TMT	39.79	33.62	1.000								1.102
2. STRATEGIC ORIENTATION	3.25	0.54	0.168**	1.000							1.468
3. TURBULENCE	3.37	0.65	0.041	0.229**	1.000						1.110
4. COMPETITIVE STRATEGY	3.08	0.56	0.129*	0.456**	0.133*	1.000					1.287
5. DIVERSIFICATION STRATEGY	1.50	1.16	0.259**	0.305**	0.040	0.206**	1.000				1.176
6. EXPERIENCE-TMT	20.65	23.87	0.176**	0.270**	0.130*	0.125*	0.151**	1.000			1.112
7. COMPANY AGE	24.89	17.45	0.188**	0.017	-0.121*	-0.035	0.118	-0.121*	1.000		1.140
8. COMPANY SIZE	60.05	127.42	0.245**	0.177**	0.032	0.091	0.288**	0.062	0.070	1.000	1.127

** correlations are significant at 0.01 level

* correlations are significant at 0.05 level

Table 4: Moderator influences on relationship between strategic orientation and performance.

Variable	Model 1 Control variables	Model 2 Hypothesis 1	Model 3 Hypothesis 2	Model 4 Hypothesis 3	Model 5 Hypothesis 4	Model 6 Hypothesis 5	Model 7 Hypothesis 6	Model 8 Overall model
Step 1: Controls								
Company Age	-0.013	-0.008	0.001	-0.008	0.005	0.001	-0.028	-0.014
Company Size	0.172***	0.108*	0.112*	0.101	0.098	0.102*	0.058	0.051
Step 2: Independent								
Strategic Orientation		0.357***	0.370***	0.362***	0.321***	0.238***	0.343***	0.205***
Step 3: Moderator								
Turbulence			-0.027					-0.021
Level of Education				-0.013				-0.022
Experience					0.377***			0.411***
Competitive Strategy						0.307***		0.294***
Diversification Strategy							0.127*	0.109
Step 4: Interaction Terms								
S. Orientation x Turbulence			0.124**					0.133**
S. Orientation x Level of Education				0.068				0.054
S. Orientation x Experience					-0.290**			-0.374***
S. Orientation x Competitive Strategy						0.135**		0.098
S. Orientation x Diversification Strategy							0.109*	0.117*
Model R ²	0.029***	0.152***	0.172***	0.156***	0.182***	0.238***	0.182***	0.315***
Adjusted R ²	0.022***	0.141***	0.153***	0.138***	0.163***	0.221***	0.164***	0.271***
Change in R ²	0.029***	0.124***	0.015***	0.005***	0.016***	0.017***	0.011***	0.072***
Model F	3.870**	13.589***	9.280***	8.310***	9.951***	13.963***	9.729***	7.152***

Dependent variable: Performance

*p < 0.1

**p < 0.05

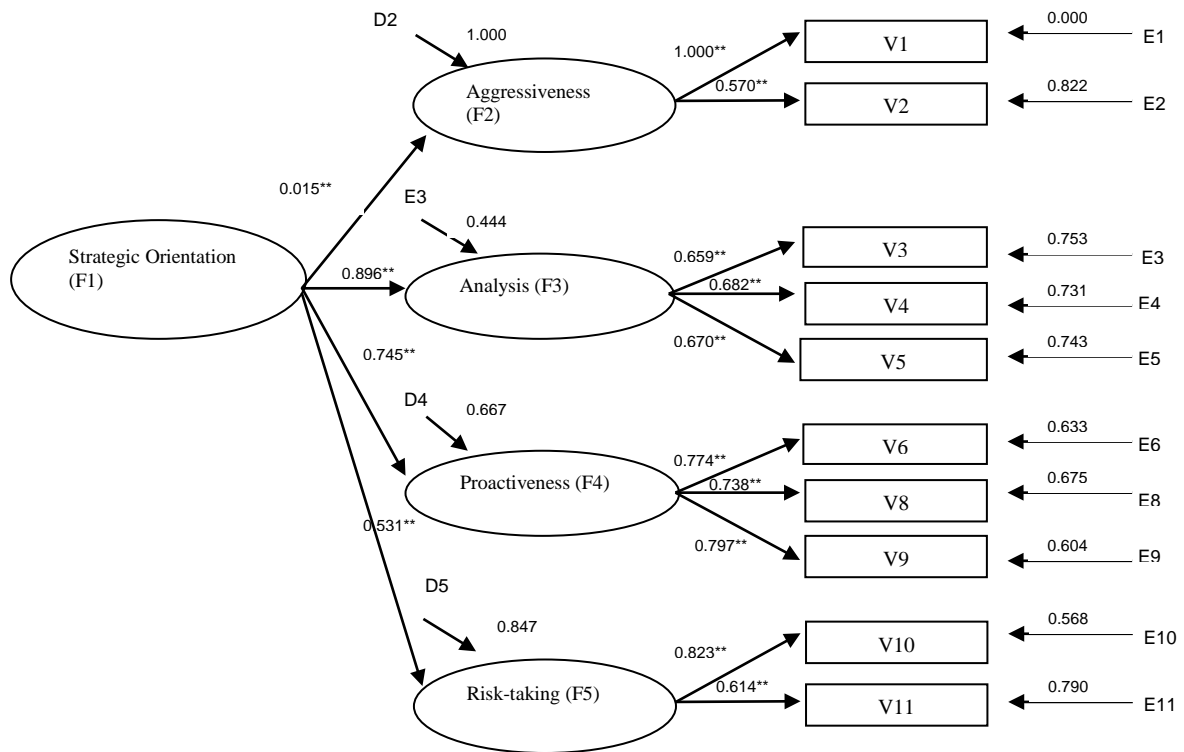
***p < 0.01

APPENDIX: TABLES AND FIGURES

A.1. Dimensions of the Strategic Orientation Scale

DIMENSION	Managers' perceptions about... (1: Strongly disagree, 2: Disagree; 3: Indifferent; 4: Agree; 5: Strongly agree)
Aggressiveness	<ul style="list-style-type: none"> - Sacrificing profitability to gain market share (V1) - Cutting prices to increase market share (V2)
Analysis	<ul style="list-style-type: none"> - Establish deliberated plans to cope with environment opportunities and threats (V3) - Emphasize effective information seeking and key information identification for decision-making (V4) - Follow formal procedures to coordinate decisions in different areas (V5)
Futurity	<ul style="list-style-type: none"> - Emphasize innovation to anticipate future market needs (V6) <i>(associated with the proactiveness dimension after EFA)</i> - Conduct prospective studies to examine the evolution of key environmental factors (V7) <i>(removed after EFA)</i>
Proactiveness	<ul style="list-style-type: none"> - Constantly seeking new products and markets (V8) - Usually the first ones to introduce new brands or products in the markets (V9)
Risk-taking	<ul style="list-style-type: none"> - Sometimes, decisions in the company have produced important changes in the way we operate as an organization (V10) - The company tends to develop less risky investment projects than competitors, although income expectations are lower (V11) (reverse-coded) - Assessment of new projects is based on intuition instead of analysis (V12) <i>(removed after EFA)</i> (reverse-coded)

A.2. Strategic Orientation scale.



A.3. Goodness of fit (final strategic orientation scale)

Index	Level constituting an acceptable fit	Level of SO scale
BENTLER-BONETT NORMED FIT INDEX	Close to 0.9	0.932
BENTLER-BONETT NONNORMED FIT INDEX	Close to 0.9	0.952
COMPARATIVE FIT INDEX	Close to 1	0.967
LISREL GFI FIT INDEX	Close to 0.9	0.960
LISREL AGFI FIT INDEX	Close to 0.9	0.929
STANDARDIZED RMR	Lower than 0.08	0.041

A.4. Measurement of variables

Variable	Measure	Cronbach's alpha
Performance	<p>Mean of managers' assessments about: (a) profitability of sales in the last five years, (b) market share in the last five years, (c) degree of loyalty of customers in the last five years, (d) annual sales growth rate in the last five years, (e) product improvement and development costs in the last five years.</p> <p>5-point Likert scale (1: Much lower than expected; 5: Much higher than expected)</p>	0.6154
Strategic Orientation	See details of the SO measurement scale (Table A.1; Figure A.2. Table A.3 in the appendix)	See Table A.3
Environmental Turbulence perception	<p>Mean of managers' perceptions about: (a) speed and frequency of technological changes, (b) speed and frequency of changes in customer needs, (c) difficulty of predicting changes that will happen in the future, (d) impact of other companies' actions on the company, (e) the variety of external factors that influence the company's decisions.</p> <p>5-point Likert scale (1: Very low; 5: Very high)</p>	0.7174
Managers' level of education	Percentage of managers with a high level of education	N/A
Managers' experience	Percentage of managers with experience in other companies and other sectors	N/A
Competitive Strategy	<p>Index composed by managers' perceptions about:</p> <p><i>Cost efficiency position in comparison to competitors:</i></p> <p>(a) Firm's effort on reducing production costs (<i>reverse-coded</i>),</p> <p>(b) Firm's effort on improving processes, in order to reduce quality-control costs (<i>reverse-coded</i>);</p> <p><i>Marketing differentiation position in comparison to competitors:</i></p> <p>(c) Firm's investment in marketing activities (publicity, trade fairs, sales force...),</p> <p>(d) Firm's investment in after-sale services.</p> <p>5-point Likert scale (1: Much lower than competitors; 5: Much higher than competitors)</p> <p>Mean of the 4 items. High values indicate differentiation competitive strategies.</p>	0.6264
Diversification Strategy	<p>Index that includes the sum of the importance given by managers to product and market diversification strategies the growth of their firms during the last years divided by the sum of the highest levels of importance.</p> <p>High values indicate a high importance of diversification of products and markets during the last years for the regular development of firms' activities.</p> <p>5-point Likert scale (1: None; 5: Very high)</p>	N/A

N/A: Not Applicable