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Competitive Strategies and Firm Performance: A Comparative Analysis of Pure, Hybrid and 'Stuck-in-the-middle' Strategies in Spanish Firms

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The purpose of this study was to examine the viability of hybrid competitive strategies, which combine differentiation and cost elements, and their impact on organizational performance in comparison to pure strategies and 'stuck-in-the-middle' combinations. Previous studies have focused above all on US data. The analysis carried out in this paper has centred on a multisectorial sample of 164 Spanish firms. The findings show that a large number of the organizations use different types of hybrid strategies and also that such strategies tend to be associated with higher levels of firm performance, particularly those strategies which place emphasis on a greater number of strategic dimensions, and specifically on innovation differentiation.

Introduction

Ever since Porter published the study in which he proposed three different, mutually exclusive types of generic competitive strategies, numerous works have fuelled a debate which revolves around three major aspects: (a) whether the strategy of any firm can be represented by one of the three types of generic strategies outlined by Porter, i.e. cost leadership, differentiation and focus (Bantel and Osborn, 1995; Dawes and Sharp, 1996; Kotha and Vadlamani, 1995; Miller and Dess, 1993); (b) the compatibility or incompatibility between these strategies (Hill, 1988); and (c) the convenience of combining these strategies for the purpose of improving the organization's performance and better adapting to the demands posed by the environment (Allen and Helms, 2006; Kroll, Wright and Heiens, 1999; Miller, 1992b; Wright *et al.*, 1994). The third aspect is the one which has received the least attention, which is why this paper seeks to provide empirical evidence about it. Therefore, it can be interesting to study the viability of pure generic strategies (costs or differentiation)[1] and

[1]Porter (1985, p. 11) pointed out that there are two basic types of competitive advantage a firm can possess in order to achieve above-average performance: low cost or differentiation. The two basic types of competitive advantage combined with the scope of activities for which a firm seeks to achieve them lead to three generic strategies: cost leadership, differentiation and focus. Thus, there are two different and independent decisions: one about how to compete (costs and/or differentiation) and another about where to compete (market scope). In line with this idea, Mintzberg (1988) argues that a focus strategy defines the scope of a market domain, whereas Porter's other two generic strategies reflect how a firm competes in that market domain. Therefore, focus strategy is not a decision about competitive advantage but about market scope. Our paper focuses on the decision about how to compete, and therefore focus strategy has not been considered. Other studies that have not considered focus strategy are Bayo-Moriones and Lera-López (2007), Dess, Lumpkin and Covin (1997), Gopalakrishna and Subramanian (2001), Hall

hybrid strategies (which combine low costs and differentiation elements) in an environment that is becoming more and more dynamic and turbulent.

The objective of this study is threefold: (1) analysing whether or not firms use hybrid strategies; (2) determining, if that is the case, whether those hybrid strategies lead to a higher or lower performance than pure strategies; (3) exploring the 'stuck-in-the-middle' concept and its relationship with performance.

The results obtained in previous research are far from conclusive. Some authors (Dess and Davis, 1984; Hall, 1980; Hambrick, 1983; Kim and Lim, 1988) found that many of the most profitable firms had achieved either the lowest costs or the most differentiated position within their industry, which supported Porter's position. However, others have checked that Porter's generic strategies do not represent ways to achieve a higher performance level (Dawes and Sharp, 1996; Parker and Helms, 1992) and that hybrid strategies are the ones entailing an improved performance (Gopalakrishna and Subramanian, 2001; Spanos, Zaralis and Lioukas, 2004; White, 1986). Additionally, the studies carried out have usually focused on one sector (Helms, Dibrell and Wright, 1997; Kim, Nam and Stimpert, 2004; Proff, 2000; Wright *et al*., 1991b). This type of study allows one to have a more homogeneous sample, although one cannot generalize the research findings to other industries.

The present paper seeks to contribute to this debate about the influence of pure and hybrid strategies on performance in various ways. First, this research study takes a further step toward the generalization of the results of previous works by carrying out a multisectorial analysis. Second, few studies have had as their specific main aim to check the relationship between hybrid strategies and performance. Further theoretical work and additional replications are thus needed to refine methodologies (Campbell-Hunt, 2000; Fritz, 2006; Parnell, 1997). In the present paper we therefore try to perform a statistical analysis of the effect caused by pure and hybrid competitive strategies on performance. Third, the 'stuck-in-the-middle' concept is examined in depth, analysing, too, its implications for performance compared to pure and hybrid strategies, a topic that few studies have dealt with so far. Finally, the study uses data about Spanish firms; it must be remembered that empirical research has so far basically centred on US data (Ghobadian, Veettil and O'Regan, 2006).

In order to achieve our aims, we have structured the paper as follows. First, we briefly refer to the background and the hypotheses. Second, we comment on the issues related to the methodology. Third, we show the main results drawn from our statistical analysis and also discuss our findings. Finally, we present the main conclusions and suggest possible future research.

Background and hypotheses

Hybrid, pure and 'stuck-in-the-middle' strategies

Porter (1980, 1985) has often argued against the simultaneous pursuit of low costs and differentiation strategies on the grounds that each of them involves a different set of resources and organizational arrangements. Other authors, though, have shown that low costs and differentiation may be compatible approaches for dealing with competitive forces (Beal and Yasai-Ardekani, 2000; Hall, 1980; Hill, 1988; Kim and Lim, 1988; Liao and Greenfield, 1997; Miller and Friesen, 1986a, 1986b; Murray, 1988; Phillips, Chang and Buzzell, 1983; White, 1986; Wright *et al*., 1991a, 1995) and postulated the pursuit of what has been termed 'hybrid', 'mixed', 'integrated' or 'combination' strategies (Kim, Nam and Stimpert, 2004; Spanos, Zaralis and Lioukas, 2004). These 'hybrid' strategies are the ones which combine low costs and differentiation elements (Gopalakrishna and Subramanian, 2001; Proff, 2000).

The distinction between 'taxonomical' and 'dimensional' approaches becomes essential to understand the concept of hybrid strategies (Campbell-Hunt, 2000; Miller and Dess, 1993). Porter (1980) seems to defend a 'taxonomical' approach when he argues that low costs and differentiation strategies are two alternative, inconsistent or incompatible methods to achieve a competitive advantage and outperform other companies in their industry. However, various

(1980), Hill (1988), Karnani (1984), Marlin, Lamont and Hoffman (1994), McGee, Dowling and Megginson (1995), Miller (1992a, 1992b), Phillips, Chang and Buzzell (1983), Spanos, Zaralis and Lioukas (2004), White (1986) and Wright *et al*. (1991b).

authors (Miller, 1988; Miller and Friesen, 1986a, 1986b; Spanos and Lioukas, 2001; Spanos, Zaralis and Lioukas, 2004) defend a 'dimensional' approach, according to which generic competitive strategies should not be regarded as two unique strategies but as two dimensions with respect to which each firm must choose its position. Thus, according to Miller and Dess (1993), Porter's framework could be improved by viewing it as providing two important dimensions of strategic positioning (costs and differentiation) rather than as two distinct strategies.

The consideration of the possibilities to improve the position in costs and in differentiation as mutually exclusive is based on two main arguments (Day, 1989; Porter, 1985). On the one hand, the achievement of a greater differentiation often means higher costs. For instance, manufacturing higher quality products normally requires the use of more expensive raw materials and components as well as less standardized production processes. Offering customers a better service or having available larger stocks in order to deliver orders quickly increases costs too. On the other hand, these two generic strategies require different skills and resources and are associated with different organizational requirements, systems and control mechanisms.

Nevertheless, two arguments can serve to defend the compatibility between these two strategies. The first is that reaching a strong position in one of these two strategies may lead to improving the position in the other. As Hill (1988), Miller (1992b) and Miller and Friesen (1986b) point out, achieving a strong position in differentiation may entail an increase in the demand and the market share of the firm, which will allow it to exploit certain economies of scale. Thus, creating a brand image through investments in advertising can result in efficiency improvements thanks to a greater market share and an accumulated production volume (Kroll, Wright and Heiens, 1999; Phillips, Chang and Buzzell, 1983; White, 1986; Wright, 1987; Wright *et al.*, 1991a, 1994). Furthermore, with a strong position in costs, the firm will be able to invest its profits in marketing, service or product attributes, thus reinforcing its position in differentiation. Second, there are certain business practices with which it may be possible to improve both positions, namely quality management (Belohlav, 1993; Grant, 2002; Wright *et al.*, 1994) and environmental management (Porter and Van der Linde, 1995; Schmidheiny, 1992). Deming (1982) explains that quality management implies higher quality (and thus differentiation), lower costs and increased productivity, which in turn may give the firm a greater market share and better competitiveness levels. Environmental management, through pollution prevention, can allow the firm to save and control costs, input and energy consumption, and may additionally increase the demand from environmentally sensitive consumers through the acquisition of a good ecological reputation (Miles and Covin, 2000). Furthermore, information and communication technologies can contribute to improve differentiation (through greater ability to respond rapidly to market changes) and low cost position (by management decision support systems which allow cost indicators to be displayed and predicted) of a firm (Bayo-Moriones and Lera-López, 2007).

The idea of incompatibility between costs and differentiation competitive strategies advocated by Porter led him to coin the expression 'stuck-in-the-middle'. Thus, Porter (1980, 1985) points out that a firm that engages in each generic strategy but fails to achieve any of them is 'stuck-in-the-middle'. Becoming 'stuck-in-the-middle' is often a manifestation of a firm's unwillingness to make choices about how to compete. Porter's idea refers to a lack of clarity in the strategy, which fails to place a distinct emphasis on either dimension. The 'stuck-in-the middle' option can also be interpreted as a decision to adopt a 'middle-market' position where the firm occupies a middle position both in costs and in differentiation with respect to its competitors (Bowman, 1992; Spanos, Zaralis and Lioukas, 2004). In any case, this concept has been used to refer to unsuccessful strategic combinations.

When investigating the viability of combining Porter's generic strategies from an empirical point of view, it is very important to distinguish between firms that are 'stuck-in-the-middle' and those that combine generic strategies (Dess and Rasheed, 1992). Thus, firms pursuing a hybrid strategy have dual emphases: they emphasize efficiency (low costs) and differentiation (Wright *et al.*, 1991b). Instead, being 'stuck-in-the-middle' would mean a non-competitive advantage with a high costs position and a low level of differentiation (White, 1986). Some authors (Dess and

Davis, 1984; Gopalakrishna and Subramanian, 2001; Kim and Lim, 1988) apply the expression 'stuck-in-the-middle' to situations in which, when a cluster analysis is carried out, one of the clusters obtains low or medium scores in all the generic competitive strategies, while others (Miller and Dess, 1993; Spanos, Zaralis and Lioukas, 2004) consider that those firms which place a medium emphasis (neither high nor low) on all the generic strategic dimensions are following the so-called 'stuck-in-the-middle' strategy.

Pure, hybrid and 'stuck-in-the-middle' strategies and firm performance: hypotheses

As mentioned above, the empirical studies dedicated to the relationship between hybrid strategies and performance have provided disparate results (Dawes and Sharp, 1996; Dess and Davis, 1984; Gopalakrishna and Subramanian, 2001; Hall, 1980; Hambrick, 1983; Kim and Lim, 1988; Spanos, Zaralis and Lioukas, 2004; White, 1986).

From a theoretical point of view, the need to pursue a hybrid strategy is intensified by the existence of certain problems associated with pure strategies (Miller, 1992b). First, strategic specialization may leave serious gaps or weaknesses in product offerings and ignore important customer needs. Thus, companies can be hurt by a sharply pure strategy that has key gaps. For all the praise given to strategic concentration, paying too much attention to too few things can be negative. Most products must satisfy a significant market in numerous ways: with quality, reliability, style, novelty, convenience, service and price. Unless all the important hurdles are met, customers will be driven away. Second, another danger in pure strategies is that competitors may be able to imitate them more easily than hybrid strategies. We have to take into account that a pure strategy (low costs or differentiation) can be developed through the combination of a large number of factors difficult to imitate by competitors. However, the hybrid strategy will be even more difficult to pinpoint and imitate than these pure ones, because the hybrid strategy will combine several factors related to low costs and differentiation. Thus, companies that follow such pure strategies may be at a disadvantage compared to those that combine them in a creative way (Booth and Philip, 1998; Miller, 1992b), because hybrid strategies may yield multiple sources of advantage over rival firms and thus allow realization of higher performance (Beal and Yasai-Ardekani, 2000). Third, regarding market changes, customer needs and tastes evolve, and competitors invent new challenges. Firms focused on one pure strategy (e.g. producing at low cost or attaining high differentiation) may be more vulnerable and rigid to such changes than firms that emphasize both dimensions with a hybrid strategy (Booth and Philip, 1998; Miller, 1992b). For example, pure cost leaders usually find it especially difficult to change technologies. Not only are specialists more vulnerable at any given time to changes in the market, they are also less likely to preserve the skills needed to adapt to changes in the longer term. By focusing on a single strength, firms reduce their resilience and adaptability.[2]

These three problems associated with pure strategies might turn into arguments for the adoption of hybrid strategies: they may address customer needs better; they may be more difficult to imitate; and they may generate a more flexible, wider view. Proff (2000) argues that changes in the market environment, particularly in the supply and demand conditions, are making both strategies – low costs and differentiation – necessary at the same time. According to this author, on the supply side, forecasts are becoming increasingly difficult because product cycles are becoming shorter and discontinuities are increasing.[3] This means that a pure low costs strategy has fewer chances of success, because it is difficult to achieve economies of learning and experience. On the demand side, price is becom-

[2]Miller (1992b) indicated that pure strategies may cause inflexibility and narrow an organization's vision. He provides several examples to explain this aspect. For instance, Texas Instruments was a formidable cost leader in computer chips, but it lacked the vigilance and flexibility to keep up with advances in technology. Its products soon became outdated. In contrast, Intel Corporation, Texas Instruments' competitor, has succeeded by focusing on both costs and innovation.

[3]Govindarajan and Trimble (2004, 2005) point out that in order to cope with these discontinuities, changes and uncertainties (that they call 'critical unknowns'), it is important to carry out three tasks related to strategic innovation: forget, borrow and learn. In any case, these authors indicate that predictions are important not because of their accuracy but because of the learning opportunities they present.

ing less important as a sales argument and demand itself is becoming more differentiated. On the one hand, some customer requirements are converging and, on the other, lifestyles are becoming more diverse and needs are more individual. Mass customization along with the development of network organizations both demand and make possible the flexible combination of multiple strategies (Kim, Nam and Stimpert, 2004). So, firms must be able to combine the costs and differentiation strategies in a balanced way. Moreover, as pointed out by Hill (1988), there are situations in which one cannot achieve a single low costs position in a given industry; hence the need for differentiation as well as low costs in order to achieve a sustainable competitive advantage. In short, the pursuit of hybrid competitive strategies may help obtain several sources of advantage, and thus make it possible to achieve higher performance levels. All the arguments above provide the basis for the first hypothesis.

H1: Hybrid strategies will lead to higher levels of firm performance than pure strategies.

Continuing with hybrid strategies, different works within the 'dimensional' approach have considered that the competitive strategy is not only formed by two dimensions – differentiation and costs – but that, in turn, various types of differentiation can be established. Thus, for instance, Mintzberg (1988) disaggregates Porter's differentiation strategy into differentiation by marketing image, product design, quality, support and undifferentiation, while Beal and Yasai-Ardekani (2000) distinguish between innovation differentiation, marketing differentiation, quality differentiation and service differentiation. Our study, which follows Miller's main orientation (1986, 1987a, 1988, 1991), considers three different strategic dimensions: low cost, and two types of differentiation, via innovation and via marketing. Other studies that have also used these two types of differentiation are Lee and Miller (1996), McGee, Dowling and Megginson (1995), Miller and Toulouse (1986), Spanos and Lioukas (2001) and Spanos, Zaralis and Lioukas (2004).

The success of hybrid competitive strategies may depend on the number of generic dimensions on which emphasis is simultaneously placed, since the more complex and multidimensional the strategic profile of a firm, the more difficult it will become to imitate its strategic position and consequently the higher its profitability might be. This means that a combination of the three strategic dimensions emphasized at the same time will be better than a combination of two of them which, in turn, will be better than a combination in which only one of the dimensions is emphasized (Spanos, Zaralis and Lioukas, 2004).

H2: The higher the number of strategic dimensions particularly emphasized, the higher the levels of firm performance that will be obtained.

Regarding the 'stuck-in-the-middle' concept, it can be said that a firm will find itself in this situation if it fails to develop its strategy along *at least one* of the strategic dimensions (Miller and Dess, 1993, p. 555). In other words, any combination which places a distinct emphasis on none of the dimensions must be regarded as 'stuck-in-the-middle', as it does not manage to excel in anything. These are unsuccessful strategic combinations, which should lead the researcher to predict that any one of them will entail lower levels of firm performance than the hybrid strategies in which several dimensions are emphasized, and also than pure strategies, because the latter emphasize at least one dimension. Therefore, the following two hypotheses can be stated.

H3: 'Stuck-in-the-middle' strategies will lead to lower levels of firm performance than hybrid strategies.

H4: 'Stuck-in-the-middle' strategies will lead to lower levels of firm performance than pure strategies.

Additionally, it could be interesting to compare, within the group of 'stuck-in-the-middle' strategies, the two considerations about this concept presented above, namely lack of a distinct emphasis on any of the dimensions and middle-market positioning (Bowman, 1992; Miller and Dess, 1993; Porter, 1980; Spanos, Zaralis and Lioukas, 2004). Since all of them are unsuccessful strategies, a middle position in all three strategic dimensions does not necessarily mean a higher performance than that achieved by the others 'stuck-in-the-middle' because the firm excels in none of the dimensions anyway. Then, the following hypothesis can be stated.

H5: The 'stuck-in-the-middle of middle-market position' strategy will not entail higher levels of firm performance than the rest of the 'stuck-in-the-middle' strategies.

Methodology

Sample and data collection

This study has focused on Spanish firms which were not subsidiaries of a larger corporation or group (so as to avoid the latter's possible influence on the competitive strategy) and were not diversified (so that they could be treated as independent business units during the evaluation of their results) (Wright *et al*., 1991b). Among these, firms were selected with 250 or more workers, i.e. 'large firms' according to Recommendation 2003/361 of the European Commission, and more than three years of operation, which allowed the assessment of their business performance in recent years. After looking through various firm directories,[4] a total population of 1903 firms from different sectors was obtained.

The data collection procedure used was a mail survey sent to the Chief Executive Officer (CEO) of each company, the person who usually has the most complete vision of the firm's competitive strategy. The preparation of the questionnaire for the survey was carried out in several stages. First, after reviewing the literature on competitive strategies and firm performance, an attempt was made to refine the questionnaire through a round of discussion and reflection with a number of experts in the field who had to assess content validity (Conca, Llopis and Tarí, 2004; Dess and Davis, 1984; Govindarajan, 1988). This was followed by a pilot test in which personal interviews were held with the CEOs of five firms (one firm from the primary sector, two manufacturing firms and two from the service sector). The test mainly served to verify whether or not the questions were clear enough and to check the extent to which they provided useful information for the study. Once this stage was completed, the final questionnaire was sent to its addressees.

Table 1. Sector classification

Sectors	Respondents		Population	
	Firms	%	Firms	%
Primary	1	0.61	15	0.79
Manufacturing	64	39.02	852	44.77
Services	99	60.37	1036	54.44
Total	164	100	1903	100

One month after the initial mailing we sent a follow-up mailing to those firms which had not answered (Dillman, 2000). Finally, 164 firms participated in the study. Table 1 shows the data about the sector breakdown of the sample and the population.

Because it was not possible to obtain information about all the organizations forming the study population, it became necessary to check the representativeness of the sample and the non-response bias using variables with known values for the population, such as the activity sector, the number of employees and the profitability level[5] (Armstrong and Overton, 1977). χ^2 and t difference tests revealed no significant differences between respondents and non-respondents. Additionally, regarding unknown variables for the population (environment and competitive strategy variables), since firms responding later are assumed to be more similar to non-respondents (Armstrong and Overton, 1977), we compared early (first wave) with late respondents (second wave). In all variables, t tests showed the absence of bias.

Measures

Independent variables. As has already been done in previous works (Dess and Davis, 1984; Hambrick, 1983; Miller, 1988; Miller and Friesen, 1986a, 1986b; Spanos and Lioukas, 2001; Spanos, Zaralis and Lioukas, 2004), this study treated Porter's generic competitive strategies as different dimensions which shape the competitive strategy adopted by each firm and not as different, mutually exclusive types of strategies, i.e. any firm can follow each of them to a greater or lesser extent. Furthermore, as explained

[4]The Duns 50,000 Main Spanish Firms, the SABI (Iberian [Peninsula] Balance Analysis System) database and DICODI 2003–2004 ('50,000 Main Spanish Organisations' Annual Report).

[5]Three indicators (obtained from the databases available) were used for profitability: return on assets, return on sales and return on equity.

above, two types of differentiation strategies were established: *via innovation*, through either new products or new technologies, and *via marketing*, trying to offer an attractive package, good service, suitable locations, a good product or service reliability level or a brand image.

The items of the three dimensions of competitive strategy were determined using a synthesis of the items utilized in earlier studies (Beal, 2000; Govindarajan, 1988; Kim and Lim, 1988; Lee and Miller, 1996; Luo, 1999; Miller, 1986, 1988, 1991; Miller and Toulouse, 1986; Miller, Dröge and Toulouse, 1988; Pelham and Wilson, 1996; Souitaris, 2001; Zahra and Covin, 1993). Specifically, *innovation differentiation* was established from two types of measures. On the one hand, five items measured on a seven-point scale were used. On the other hand, quantitative (objective) indicators were utilized to determine the number of incremental innovations, radical innovations and patents (or copyrights) obtained by the firm during the previous three years. In turn, the *marketing differentiation* strategy was calculated using six items on a seven-point scale, along with an indicator of the costs that advertising and promotion mean for the firm as a percentage of sales every year. Finally, *cost leadership* was estimated from ten items equally measured on a seven-point scale.[6] A description of all the items employed to measure the study variables is presented in Table 2.

Table 2. Variables and measures

Dimensions	Items
Cost leadership ($\alpha = 0.769$)	Minimization of general costs
	Minimization of production costs
	Lower costs than competitors
	Economies of scale
	Process automation
	Productivity improvement
	Lower prices than competitors
	Cost standards
	Minimization of advertising expenses
	Cost centres
Marketing differentiation ($\alpha = 0.794$)	Intensive promotion
	Intensive sales force
	Advertising campaigns
	Brand image
	Complementary services
	Advertising costs (%)
	Market share
Innovation differentiation ($\alpha = 0.711$)	Leaders or followers
	Frequency of product innovations
	Higher quality or performance
	No. of incremental innovations
	Frequency of process innovations
	No. of patents
	Delivery speed
	No. of radical innovations
Effectiveness compared to competitors ($\alpha = 0.736$)	Sales growth
	Employment growth
	Market share growth
	Profits before tax
	Cashflow
	Returns on investment

Dependent variable. Although *firm performance* plays a key role in strategy research, there is considerable debate on the appropriateness of various approaches to the conceptualization and measurement of this variable (Venkatraman and Ramanujam, 1986). Since the present paper analyses firms belonging to several sectors, the subjective approach to measuring performance has been applied (Akan *et al*., 2006; Gopalakrishna and Subramanian, 2001; Spanos and Lioukas, 2001; White, Conant and Echambadi, 2003). A number of authors defend the adequacy of these subjective measures as opposed to objective ones (mainly accounting measures of profitability and return rates) when the study is multisectorial (Lukas, Tan and Hult, 2001; Powell and Dent-Micallef, 1997; Robinson and Pearce, 1988; Tan and Litschert, 1994; Venkatraman and Ramanujam, 1986, 1987). Objective measures may show differences in firm performance due to the industry and not to real differences among firms. Besides, it is worth noting that accounting measures of profitability are often criticized for being unreliable and subject to varying accounting conventions or even to managerial manipulation for a variety of reasons (e.g. avoidance of corporate taxes) (Spanos and Lioukas, 2001).

Based essentially on the works of Govindarajan (1988), Lee and Miller (1996) and Pelham and Wilson (1996), the *firm performance* was analysed using the weighted mean of six items (see Table 2) assessed by the firm for three economic years (2001–2003) in comparison to its

[6]The scale used for the three competitive strategies is as follows: 1, we do not use this strategy at all; 7, this strategy is very important for our firm. Additionally, the quantitative indicators of innovation and marketing differentiation were later transformed into seven-point scales.

main known competitors on a seven-point scale (1, well below my competitors; 7, well above my competitors). Respondents were asked to indicate their firms' relative performance over the previous three-year period in order to avoid bias from any temporal fluctuations and also to approximate a notion of sustainability of performance (Spanos and Lioukas, 2001). Likewise, this measure was weighted with the corresponding score for the degree of importance assigned by the company to each of these indicators on a five-point scale (1, not important at all; 5, very important).

Control variables. *Firm size*, one of the most frequently studied contextual variables, has been used as a control variable in order to remove whatever effects this may have on firm performance (Spanos and Lioukas, 2001; White, Conant and Echambadi, 2003). Organizational size was measured as the natural logarithm of the number of employees.

Similarly, since the study was carried out on a multisectorial sample of firms, it becomes necessary to focus on the effect that certain activity sectors might have on the performance achieved by the company. For the purpose of controlling that effect, as shown above, the organizational performance was measured using the subjective assessment made by the managers of each firm with respect to its main known competitors. Nevertheless, data about the characteristics of the environment were also collected to control the potential impact of market conditions. More precisely, three dimensions were used in the hope of achieving an estimate of the degree of turbulence existing in the market (David *et al*., 2002; Olson, Slater and Hult, 2005; Slater and Olson, 2000). The three dimensions used are the degree of *uncertainty*, measured from three items related to the uncertainty about the strategies followed by competitors, about customer tastes and about the demand; the *dynamism* in the environment caused by the *rapidity of the changes* taking place in it, estimated from eight items about technological changes, in processes, in products, in distribution and in supplier activities; and the *dynamism* linked to the new *business opportunities* regarding new customers, geographical markets or fewer competitors (four items). A seven-point scale was used in all three cases. The preparation of these measurement scales was essentially based on the studies of Lee and Miller (1996), Miller (1987b) and Miller and Dröge (1986).

Finally, the reliability of each of the previously described scales was examined using Cronbach's (1951) coefficient alpha, which serves to indicate their internal consistency, adequate values being obtained. As for validity, two types were identified: first, an effort was made to ensure content validity through a review of the literature on the items included in the questionnaire; second, two approaches were distinguished to examine construct validity – convergent and divergent validity. The convergent approach was assessed from the correlation of the items included in each scale and the mean of all these items. Positive and significant correlations were observed. A further test of convergent validity was estimated by means of the correlations between the objective and subjective values included in the scales of innovation and marketing differentiation, and the correlations between the scale used to measure the organizational performance and the three 'objective' profitability indicators (return on assets, return on sales and return on equity) (Robinson and Pearce, 1988; Spanos and Lioukas, 2001). Correlations turned out to be positive and significant in all cases. The divergent validity was examined through the detailed analysis of the items, which revealed that the items included in each dimension generally correlate positively and significantly with one another but not with the items corresponding to the other scales.

Results and discussion

The research work carried out by Miller and Dess (1993) was used to create the hybrid strategies and evaluate the extent to which the firms included in our sample emphasize each different strategic dimension. According to these authors, using dimensions versus 'either/or' categories has three major advantages. 'Firstly, it enables us to develop combinations of Porter's generic strategies and test their relationships with performance. Secondly, it preserves more of the data since observations near cut-off points are typically dropped with discrete categories. Thirdly, businesses low on one dimension may have their adverse performance effects offset by a high position on another dimension. This substitution

Table 3. Types of strategies

Combination number	Generic strategic dimensions			Type of strategy
	Innovation differentiation	Marketing differentiation	Low cost[a]	
Pure strategy alternatives				
1	High	Low	Low	Pure innovation
2	Low	High	Low	Pure marketing
3	Low	Low	High	Pure cost leadership
Hybrid strategy combinations				
4	High	High	High	Perfect hybrid
5–6	High	High	Average or low	Hyb. innovation and marketing
7–8	High	Average or low	High	Hyb. innovation and costs
9–10	Average or low	High	High	Hyb. marketing and costs
11–13	High	Average or low	Average or low	Hyb. innovation and others
14–16	Average or low	High	Average or low	Hyb. marketing and others
17–19	Average or low	Average or low	High	Hyb. costs and others
'Stuck-in-the-middle' combinations				
20	Average	Average	Average	'Stuck-in-the-middle of
21	Average	Average	Low	middle-market position'
22	Low	Average	Average	
23	Average	Low	Average	
24	Low	Low	Average	'Other stuck-in-the-middle'
25	Low	Average	Low	
26	Average	Low	Low	
27	Low	Low	Low	

[a]A high score in this dimension means a low cost position and a low score means just the opposite.

effect cannot be captured unless the positioning from both dimensions is measured' (Miller and Dess, 1993, p. 564).

For each of the three strategic dimensions (low costs, innovation and marketing differentiation) we identified the highest, middle and lowest thirds based on the values in each firm. In this way, each firm will show a high, medium or low score in each of the three dimensions. Combining the three possible values (high, medium or low) for each strategic dimension gives as a result a total of 27 possible strategy combinations, as described in Table 3.

These 27 possible combinations were distributed in 12 different strategies. The first three were associated with Porter's generic strategies, since they are 'pure' types of low costs, innovation differentiation and marketing differentiation strategies in which only one of the three dimensions shows a high score, that of the other two dimensions being low. Then comes the 'perfect hybrid strategy' with high scores in all three dimensions, followed by a group of hybrid strategies scoring high in two dimensions and low or medium in the third one. The next three combinations correspond to hybrid strategies where only one of the dimensions has a high score, the scores in the other two being medium in one and low in the other. Finally, there is a group of combinations linked to Porter's 'stuck-in-the-middle' strategy where none of the dimensions reaches a high score; they are various combinations of medium and low values, failing to excel in any of the dimensions. It must be pointed out that although the 'average–average–average' combination is considered just another type of 'stuck-in-the-middle' strategy, it has been categorized as belonging to a different type for the purpose of being able to test the fifth hypothesis.

Using dummy and effects coding schemes (Hardy, 1993), 11 variables were defined to examine the performance outcomes of these 12 distinct strategy types in two different regression models. Thus, hierarchical regression analysis is used to test the hypotheses. Firm performance is firstly regressed on control variables (logarithm of the number of employees, uncertainty and the two dynamism variables), after which the 11 variables defining the 12 types of competitive strategies are introduced into the regression model.

It is well known that the two coding methodologies (dummy and effects coding) are alternative

but mathematically equivalent, i.e. the value of the R^2 coefficient and the statistical significance of the model are going to be the same. The only difference can be found in the regression coefficients for the dichotomic variables, both in their value and in their interpretation. Thus, in dummy coding, each regression coefficient represents the difference between the group in question and the reference group (which is the 'other stuck-in-the-middle' type in this study). In other words, the regression coefficient shows how much higher or lower is the mean performance of firms belonging to each strategy group compared to the mean performance of firms belonging to the reference group (Spanos, Zaralis and Lioukas, 2004). Instead, in effects coding, the variable coefficient represents the difference between the effect of the category and the average effect of all categories under consideration (Beal and Yasai-Ardekani, 2000).

Table 4 shows three different regression models. The first one only includes the control variables, i.e. firm size measured by the number of employees and the three dimensions measuring the uncertainty and dynamism in the environment. The second model incorporates all the variables representing the different types of competitive strategies coded as dummy variables, while the third one has been elaborated through the application of an effects coding scheme to competitive strategies.

Table 4. Results drawn from the regression analysis of firm performance

Variables	Model 1 (control variables)	Model 2 (dummy coding)	Model 3 (effects coding)
Control variables			
Size	0.178**	0.112	0.112
Uncertainty	0.094	0.079	0.079
Dynamism of rapid changes	0.102	−0.020	−0.020
Dynamism of new opportunities	0.140*	0.125	0.125
Strategy variables			
Pure innovation		0.051	−0.041
Pure marketing		0.004	−0.160
Pure cost leadership		−0.037	−0.288*
Perfect hybrid		0.288***	0.467***
Hyb. innovation and marketing		0.227***	0.270*
Hyb. innovation and costs		0.225***	0.266*
Hyb. marketing and costs		0.084	0.003
Hyb. innovation and others		0.110	−0.013
Hyb. marketing and others		0.061	−0.131
Hyb. costs and others		0.103	−0.016
'Stuck-in-the-middle of middle-market position'		0.025	−0.126
R^2	0.085	0.201	0.201
Adjusted R^2	0.061	0.120	0.120
F	3.670***	2.488***	2.488***
ΔR^2 (from Model 1 to 2 and 3)		0.117**	0.117**

*$\rho < 0.10$; **$\rho < 0.05$; ***$\rho < 0.01$.

The first aspect that one can observe in Table 4 is that all three regression models are statistically significant. In addition, a significant increase in the R^2 coefficient takes place when the variables corresponding to the type of strategy are included with respect to the model that exclusively considered control variables. On the other hand, according to Model 1, only the size of the firm and the dynamism of the environment in relation to new business opportunities show a statistically significant, positive regression coefficient, although this significant effect disappears when the strategic variables are incorporated (Models 2 and 3).

Concerning Model 2, in which are included the different types of strategies in comparison to the 'other stuck-in-the-middle' combinations, Table 4 illustrates that three variables show statistically significant, positive regression coefficients. They are three hybrid strategies: the perfect hybrid one, the hybrid one which emphasizes the innovation and marketing dimensions and the hybrid strategy which places emphasis on innovation and costs. These same variables also obtain significant, positive regression coefficients in Model 3. This means that, both when comparing to the 'other stuck-in-the-middle' combinations and when comparing to the mean of the 12 types of strategy defined, three specific types of hybrid strategies are the ones offering the best performance. Additionally, the pure cost leadership strategy presents a significant, negative regression coefficient. This means that the firm performance derived from this strategy is well below the average value obtained by all of them.

It can be stated from the above that Hypothesis 1, which predicted higher levels of firm performance for hybrid strategies than pure ones, is confirmed, at least partially. More specifically, this holds true for three of the hybrid strategies defined. Furthermore, Hypothesis 2 suggested that those hybrid strategies that emphasized a greater number of strategic dimensions would

entail higher levels of firm performance. This is confirmed both in Model 2 and in Model 3, in which it can be observed that the strategy with a stronger effect on the organizational performance is the perfect hybrid one. Then, the two next most significant strategies are the hybrid that emphasizes both the innovation and the marketing dimensions, and the hybrid that emphasizes innovation and costs strategy. No significant effect of the hybrid strategy that emphasizes the marketing and costs dimensions was observed though. The remaining strategies (the three pure ones, the three hybrid ones which emphasize a single strategic dimension and the 'stuck-in-the-middle of middle-market position' strategy) even present negative regression coefficients in Model 3 (which would indicate firm performance below the mean), although the coefficients are not significant except for the pure cost leadership strategy. It can therefore be concluded, following Hypothesis 2, that those hybrid strategies that place emphasis on a greater number of strategic dimensions lead to higher levels of firm performance, as long as innovation is one of the outstanding dimensions.

Regarding Hypothesis 3, which predicted lower levels of firm performance for 'stuck-in-the-middle' strategies as opposed to the hybrid ones, it can be inferred from Model 2 that this hypothesis is partially confirmed, since only three hybrid strategies are associated with a significantly superior performance. On the other hand, pure strategies have no significantly superior impacts on performance than the 'stuck-in-the-middle' ones, which means that Hypothesis 4 cannot be confirmed. Finally, Hypothesis 5 suggested that the 'stuck-in-the-middle of middle-market position' strategy would not offer higher performance than the 'other stuck-in-the-middle' one. The results drawn from the regression analysis corroborate that no significant differences exist between them, and neither do they exist in comparison to the mean of all the strategies examined. Table 5 provides a summary of the hypotheses and a brief résumé of the findings.

Therefore, from what has been shown in this research work, it is possible to develop a strategy which emphasizes several strategic dimensions, without it necessarily meaning that the firm remains 'stuck-in-the-middle' as was defended by Porter, and it is precisely the alternative known as 'perfect hybrid strategy' that would be producing higher levels of firm performance, once the effect of the degree of environmental uncertainty and dynamism and that of firm size are controlled.

Nevertheless, unlike what happened in the work of Spanos, Zaralis and Lioukas (2004), the strategies showing higher levels of performance are not always those which combine low cost with another dimension, but the hybrid

Table 5. Summary of the hypotheses and findings

Hypotheses		Findings
H1: Hybrid strategies will lead to higher levels of firm performance than pure strategies	Partially confirmed	This holds true for three of the hybrid strategies defined: perfect hybrid, hybrid of innovation and marketing, and hybrid of innovation and costs
H2: The higher the number of generic strategic dimensions particularly emphasized, the higher the levels of firm performance that will be obtained	Confirmed	Hybrid strategies which place emphasis on a greater number of strategic dimensions lead to higher levels of firm performance, as long as innovation is one of the outstanding dimensions
H3: 'Stuck-in-the-middle' strategies will lead to lower levels of firm performance than hybrid strategies	Partially confirmed	Three hybrid strategies are associated with a significantly superior performance than 'stuck-in-the-middle' strategies: perfect hybrid, hybrid of innovation and marketing, and hybrid of innovation and costs
H4: 'Stuck-in-the-middle' strategies will lead to lower levels of firm performance than pure strategies	Not confirmed	Pure strategies have no significantly superior impacts on performance than the 'stuck-in-the-middle' ones
H5: The 'stuck-in-the-middle of middle-market position' strategy will not entail higher levels of firm performance than the rest of the 'stuck-in-the-middle' strategies	Confirmed	No significant differences exist between them

strategies that emphasize innovation differentiation along with another strategic dimension. Firms are probably forced to compete for differentiation because other emergent countries start to occupy more advantageous positions thanks to their lower production costs and, in that case, the role played by innovation must be highlighted. In fact, innovation is seen as an important source of competitive advantage (Damanpour and Schneider, 2006). However, firms must be aware of the fact that innovation differentiation seems to be a necessary but not sufficient condition to ensure the achievement and maintenance of a competitive advantage, since it has been checked in this study that the pure innovation strategy is not one of those which provide higher organizational performance. One possible explanation could lie in the distinction between product and process innovations. Thus, product innovations in turn may require more important marketing actions to make innovations known to the customers, giving rise to a hybrid innovation and marketing strategy. As for process innovations, they may reduce costs more easily for the firms that create them and use them, resulting this time in the innovation and costs hybrid strategy (Fritz, 2006; Wright *et al.*, 1991b).

On the other hand, the changes in the business paradigm in recent years have led to some European manufacturers making cost-motivated investments in production facilities, e.g. in Central and Eastern Europe, China or India. Such moves may be driven by the benefits associated with relatively low labour unit costs. As a result, there has been to some degree an international relocation of labour and specialization, with EU production often shifting to knowledge-intensive, innovative activities (Eurostat, 2006). This relocation process is equally complemented by the growing use of outsourcing, above all among large companies, whereby supporting and ancillary operations previously done in-house are awarded to outside contractors, this being another way to reduce costs and focus the firm's attention on activities which provide more value, e.g. innovation.

Another result drawn from this research that deserves to be highlighted is that neither the rest of the hybrid competitive strategies (those which only emphasize one dimension and show a medium score in the other two dimensions) nor pure strategies appear as better alternatives than 'stuck-in-the-middle' ones. A similar result is obtained by Parker and Helms (1992). This is perhaps due to the fact that these are all very close strategic positions in which only one of the strategic dimensions is emphasized. A possible explanation can lie in the fact that present-day consumers have increasing access to greater and more exhaustive information about the different offering firms, and therefore generally prefer to seek good value for money rather than a totally standardized product at a low cost or a unique, excessively expensive product. This means that firms focusing their attention on a single strategic dimension may restrict their market to a smaller number of customers, as a result of which they will obtain lower levels of performance than other firms which try to offer two attractive attributes – a moderate price and some differentiation – and thus attract a larger number of customers. Additionally, adopting the low cost strategy by itself can also be disadvantageous, if the firm's costs are not reduced to closely rival the low costs of competitors; and adopting the differentiation strategy by itself can likewise be disadvantageous, if the firm's level of differentiation is not higher than, or at least in parity with, rivals'. Consequently, achieving competitive advantage is similarly not assured with the adoption of only a single, pure strategy.

Regarding the 'stuck-in-the-middle of middle-market position' concept, exactly as was foreseen in Hypothesis 5, it shows no significant differences with respect to the rest of 'stuck-in-the-middle' ones, since these are firms which have excelled in none of the strategic dimensions. However, the fact that no significant differences exist with respect to the pure strategies that do place emphasis on one dimension is striking. This could be linked to the growing difficulty in establishing effective barriers to imitation when only one strategic dimension is emphasized (Miller, 1992b), which would allow these firms to reach a performance level similar to that obtained with 'stuck-in-the-middle' strategies.

This research study offers interesting results for managers. It provides some of the strategic dimensions that may help to improve the organization's performance if they are combined properly. Therefore, the first idea that can be transmitted to managers is that differentiation and costs strategies do not seem to be incompa-

tible with one another; in fact they can be developed in a complementary way. In this respect, it can be inferred from this research that the more complex and complete the competitive strategy of the organization, the more difficult it will probably become for competitors to imitate it and the easier it will be for the firm to ensure its competitive advantage. On the other hand, the more strategic dimensions the firm excels in, the easier it will be for the firm to outperform competitors; at least this is the case with the three dimensions examined in this study, whereas the exclusive reliance on only one dimension might prove problematic. Another important practical implication for managers is that innovation differentiation seems to be especially relevant, which is why managers must be aware of the importance and repercussion that investments aimed at this type of differentiation may have for their organization, although such investments should be accompanied by other actions that encourage marketing or cost reduction activities. In any case, managers must be conscious that the adoption of hybrid strategies is not easy. They may need different kinds of resources and difficult-to-manage organizational structures.

Conclusions

This research work has as its essential purpose to analyse the viability of hybrid competitive strategies and their impact on firm performance in comparison to pure strategies and 'stuck-in-the-middle' combinations. In this sense, it has been checked that a large number of firms use different types of hybrid strategies, and also that these types of strategies are associated with higher levels of firm performance, mainly those strategies which place emphasis on more strategic dimensions, and particularly on innovation differentiation.

This study makes several contributions to the literature on strategy. First, our findings provide evidence that multidimensional measures are necessary to capture and better understand the complexity and variety of the strategy development process. Second, the analysis of the generic competitive strategies has been extended, providing empirical evidence that hybrid strategies are related to higher firm performance levels, regardless of the industrial sector they belong to. Thus, consistent with the findings of previous studies which focused on particular industries (Kroll, Wright and Heiens, 1999; Wright *et al*., 1991a, 1995), our study supports the premise that adopting multiple strategies leads to higher performance. Because we have used data collected from a wide spectrum of industries, the results of this study should be more easily generalizable than those obtained in previous empirical studies. Third, it has been verified that the more strategic dimensions are emphasized the better, and that in any case innovation differentiation appears as one of the most important dimensions in terms of firm competitiveness nowadays. This finding is especially relevant from a practical point of view and should be taken into account by firm managers. Fourth, when a firm does not manage to excel in any of the dimensions that define its strategy, it is understood that it will remain 'stuck-in-the-middle' and that this alternative is associated with a lower performance compared to that derived from hybrid strategies. However, it is worth highlighting that it is not presented as an inferior alternative with respect to pure competitive strategies.

These contributions must be considered bearing in mind the limitations faced in this research. First, having collected data only from companies with 250 or more employees, the ability to generalize the reported results to smaller companies is restricted. Second, this study has employed a cross-sectional design. Third, our study proves the superiority of hybrid strategies using a subjective performance measure, and one possible limitation related to these subjective measures is that we only have one informant from each firm.

Finally, future research might explore a number of additional issues. This paper has shown that hybrid strategies seem to lead to higher levels of performance, no matter what type of sector the firm operates in. Hence it would be advisable to analyse the internal conditions in which the implementation of such strategies is favoured, i.e. how competitive advantages can be derived from hybrid strategies. Is the development of hybrid strategies linked to certain personal characteristics of the firm's top management? Are specific characteristics of the organizational structure required for the correct development and evolution of these strategies? Can they be influenced by the organizational culture? Maybe answering one or more of these questions will

help to clarify the way in which the transition from Porter's generic strategies in their pure state to a hybrid combination of them all is taking place and also to identify the internal mechanisms (human resource management, culture, structure, new technologies and information systems, knowledge management etc.) which may be facilitating this task. Another possible research line would be the extension of the analysis presented here to small and medium-sized enterprises for the purpose of verifying the extent to which these types of firms are being affected by the transfer of comparative advantage in costs toward emergent economies such as China or India and checking whether or not, like large companies, small and medium-sized enterprises are also developing hybrid strategies to cope with the new situation. Perhaps, given the lesser availability of resources that these firms have at their disposal to invest in the development of innovations, one would find strategies which emphasize other differentiation dimensions, e.g. through services that complement the product, personal attention to consumers or users, reputation etc. It would be equally interesting to check the possible existence of differences regarding types of product or process innovation between hybrid innovation and marketing differentiation strategies and innovation differentiation and low costs strategies.

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