Order, positioning, scope and outcomes of market entry[☆]

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Abstract

This research aims to analyze the relationships between three dimensions of the market entry strategy for new products – order, positioning and scope – and four dimensions of performance – customer satisfaction, competitive position, costs and profitability. The consideration of internal links between the entry dimensions, together with their effect on the different performance variables, will enable us to determine the existence of mediating effects, which up until now have barely been examined in the literature. We test our model on a cross-sectional sample of 136 manufacturing firms, applying structural equation modeling based on the Partial Least Squares (PLS) methodology. Our findings reveal that all the three strategic decisions included in our model of market entry do affect performance, although their influence changes according to the performance dimension being measured.
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Keywords: Order-of-entry; Positioning; Market scope; Performance

1. Introduction

Firms operate in increasingly dynamic and turbulent environments characterized by intense competition, uncertain market conditions, faster technological changes and shorter product life cycles. Under these circumstances, the successful introduction of new products into the market becomes a critical factor for the survival and growth of companies. Effective new product development and commercialization is therefore a challenging task, and several studies have verified that the entry or launch strategy is a key determinant of the success or failure of product innovations (Di Benedetto, 1999; Green, Barclay, & Ryans, 1995; Hultink, Griffin, Hart, & Robben, 1997). However, further research is necessary in order to understand how the decisions made by managers when entering a new product-market affect performance.

One of the strategic launch decisions most researched is the order of market entry. Numerous works have studied the notion of *first-mover advantage* and how pioneering new markets can result in a competitive position which is superior to that of *late-entrant* firms or brands (among others Alpert & Kamins, 1994; Bowman & Gatignon, 1996; Carpenter & Nakamoto, 1989; Kardes & Kalyanaram, 1992; Kerin, Varadarajan, & Peterson, 1992; Lieberman & Montgomery, 1988, 1998). Although less widespread, there are theoretical and empirical contributions suggesting that follower advantages should not be disregarded (Boulding & Christen, 2003; Golder & Tellis, 1993; Schnaars, 1994; Shankar, Carpenter, & Krishnamurthi, 1998). Developing and commercializing a new product category gives the firm the opportunity to gain many competitive advantages, but it is costly, time-consuming, and risky (Song, Di Benedetto, & Zhao, 1999). The order of market entry is, therefore, a key factor as far as its repercussion on the success or failure of a product is concerned (Lilien & Yoon, 1990), and the debate on early-entry advantages and disadvantages has still not been concluded. It is important for managers to understand what the complex effects of this variable are. Consequently, the present study's primary objective is to offer new empirical evidence about the influence of an early-entry strategy on performance.

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But the order-of-entry decision, whilst being fundamental, is only one of the strategic variables that a firm has to deal with when launching a new product in the marketplace. Guiltinan (1999) states that in a launch plan it is necessary to define the strategic components, those concerning the "what, when and where" of the launch, as well as the tactical components, which represent a detailed description of "how" the firm will launch the product. Other authors have also discussed the distinction between the strategic and tactical aspects of a new product launch program and highlighted the need for further research on the interrelatedness of the decisions and on the influence of the launch practices on the product's success or failure (Di Benedetto, 1999; Hultink et al., 1997). Consequently, as well as deciding on the timing of the market entry, the firm will need to specify other strategic dimensions, such as the product's positioning (what to launch) and the scope of the market that it aims to cover (where to launch it). Depending on its resources and capabilities and on the potential customers' demands, the firm will choose the attributes that it wishes to offer, determining its positioning or the area of competitive emphasis (Green et al., 1995), that is, the type of competitive advantage it will pursue. According to the framework suggested by Porter (1980) and Day and Wensley (1988), the potential sources of competitive advantages would ultimately be manifested as either cost or differentiation advantages. Therefore, as a part of the new product launch program, the firm has to decide whether it will position the product as a relatively low-priced alternative or whether it will attempt to differentiate its offering through higher quality, superior service or a more varied product line that allows a better adjustment to customers' needs. The decision on the scope of market coverage reflects whether the firm targets the product at large geographical areas or at a greater number of market segments than its main competitors, or conversely, whether it focuses on a narrower market.

In short, market entry should be conceived as a set of decisions whose consistency will impact to a large extent on the outcomes achieved. The order-of-entry is one of the strategic decisions to be made. It is a relevant decision, although not necessarily the most important one. The study of its repercussion on the relative success or failure of a new product could lead to erroneous conclusions if order is analyzed in isolation, without considering its links with other dimensions of the entry strategy such as the positioning of the product or the market scope. If, as we expect, the choice of a particular positioning or of a certain targeting strategy intervene in the entry order–performance relationship, the control for these mediating effects would shed new light on how timing affects performance, and eventually would help to conciliate some of the discrepancies observed in the literature regarding the consequences of pioneering new markets. Accordingly, we set as the second objective of the present investigation the analysis of the interrelationships between the decisions on order-of-entry, product positioning and market scope and the examination of the mediating role of the latter two variables in the relationship between order-of-entry and performance.

Similarly, success in a product-market is a multidimensional concept, and competitive position (although important) is only one aspect of performance (Griffin & Page, 1993, 1996). Many studies have been conducted on the effects of launch strategy on market share as a surrogate of competitive position. But an adequate assessment of performance requires consideration of other measures of market acceptance, such as satisfaction, as well as financial measures, such as costs and profitability. Several papers recognize this multidimensionality, but most of them summarize all these dimensions into a single multi-item measure of performance. Empirical studies including customer satisfaction and product costs and contemplating the nomological net formed by the diverse performance dimensions are rare in the context of market entry. The effects of the decisions concerning entry order, positioning and entry scope on some of these dimensions – especially those differing from market share – have either not been empirically studied or are subject to controversy. Thus, our third objective is to examine the sequence of outcomes resulting from the adoption of a particular market entry strategy.
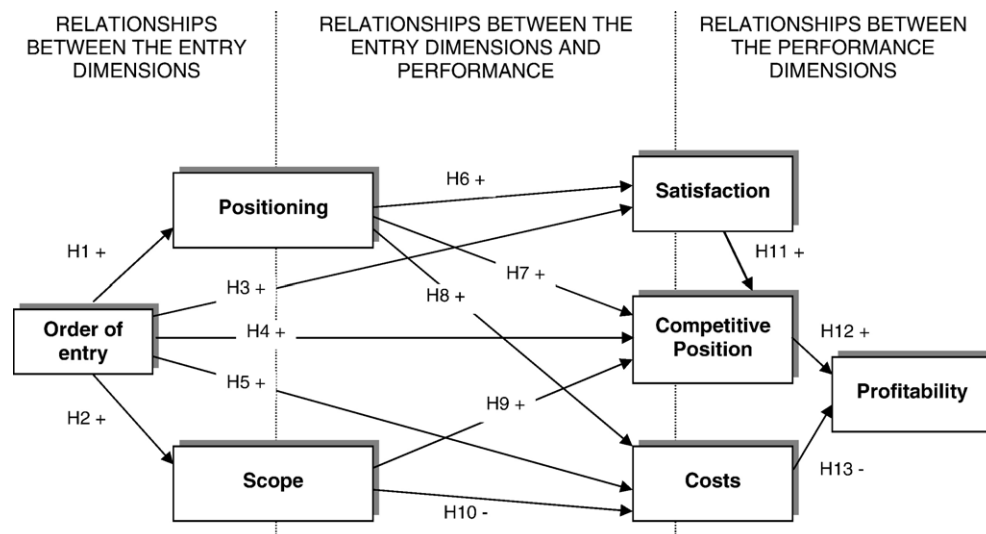

Fig. 1. Research model and hypotheses.

With these objectives in mind, we have formulated a model that comprises three sets of structural relationships (Fig. 1): the internal relationships between the entry dimensions (H1 and H2), the relationships between the entry dimensions and performance (H3–H10) and the relationships between the performance dimensions (H11–H13). With this model we attempt to extend previous research by explicitly recognizing the existence of mediating effects in the relationships traditionally studied between order-of-entry and competitive position and (less frequently) between order-of-entry and profitability. On the one hand, it considers the mediating role exerted by the other strategic dimensions in these relationships. Thus, besides the possible direct effect of order-of-entry on performance, we defend the existence of an indirect effect manifested through the product's positioning and market scope. On the other hand, we complete the explanation of the success of an entry strategy by incorporating performance outcomes that precede the achievement of a superior competitive position (customer satisfaction) or an increased profitability (a stronger competitive position or lower product costs). In our opinion, the inclusion of all these mediating variables in the model could help to resolve some of the discrepancies observed in the findings of previous studies and will lead to a deeper understanding of the market entry strategy–performance relationship.

2. Hypotheses

2.1. Relationships between the entry dimensions

Authors such as Robinson and Fornell (1985), Robinson (1988), Lambkin (1988), Miller, Gartner, and Wilson (1989), and Parry and Bass (1989) found empirical evidence that pioneering firms tend to offer higher-quality products than their rivals, broader product lines and a better customer service, which allow these firms to charge higher prices. In contrast, late entrants tend to sell products at a lower price. Similarly, De Castro and Chrisman (1995) noted that pioneers tend to choose differentiation strategies, whereas low-cost strategies are more common among followers. The reasons that may explain this relationship are varied. One might guess, for example, that first-movers use their lead-time as an opportunity to refine and improve the quality of their products before the arrival of the followers (Carpenter & Nakamoto, 1989; Kardes & Kalyanaram, 1992; Szymanski, Troy, & Bharadwaj, 1995). Furthermore, the commercialization of a broad product line by the pioneer can be a way of quickly meeting the varying expectations of diverse groups of users, thus enhancing its preemptive advantage (Bohlmann, Golder, & Mitra, 2002; Robinson, 1988; Szymanski et al., 1995), and a high-quality offering is often necessary to overcome the initial customer reticence to try a new product category (Guiltinan, 1999). On the other hand, although followers can capitalize on the positioning mistakes their predecessor might make (Schnaars, 1994; Shankar et al., 1998), in general late entrants are faced with greater difficulty in implementing an effective differentiation strategy, which forces them to compete based on price, even though they do not always achieve substantial cost savings, and may find it easier to place a narrower product line in the distribution channels (Coeurderoy & Durand, 2004; Covin,

Slevin, & Heeley, 2000; Guiltinan, 1999; Miller et al., 1989). Therefore, we consider that:

H1. An early market entry positively influences the choice of a differentiation positioning.

The scope of the market is another decision that can also be influenced by the order of entry (Covin et al., 2000; Lambkin, 1988, 1992; Robinson, 1988; Robinson & Fornell, 1985). According to Robinson, Kalyanaram, and Urban (1994), a firm that enters a market as a pioneer needs to reach a competitive scale of commercialization if it wants to obtain the advantages associated with its pioneering status. The realization of economies of scale that act as a barrier to entry against new competitors will justify the decision of the early entrants to cover more segments and larger geographical markets (Kerin et al., 1992). On the other hand, late movers who attempt to enter on a large-scale basis will presumably generate a serious response from their competitors. Thus, to avoid confrontation, they will probably limit their market coverage and target market niches where consumers' needs are not being effectively met (Lieberman & Montgomery, 1988). Furthermore, achieving good market coverage is not an unrealistic objective for pioneering firms, since they have the opportunity to preempt the best locations for the sale of their products, either in their own stores or in those of distributors, especially when the favorable opinion that retail buyers tend to have of pioneer brands is taken into consideration (Alpert, Kamins, Sakano, Onzo, & Graham, 2001). Consequently, we hypothesize that:

H2. An early market entry positively influences the choice of a broader target market.

2.2. Relationships between the entry dimensions and performance

Carpenter and Nakamoto (1989) demonstrated that an advantage for pioneers could arise from the process by which consumers learn about brands and form their preferences. When a new product category is introduced in the market, consumers probably know little about its features, the importance of each attribute, or the ideal combination of attributes. In this context, the pioneer brand has the opportunity to "define the category" and to influence in its favor how users evaluate the product and its attributes, thus shaping their preferences. In addition, Kardes and Kalyanaram (1992) argue that consumers tend to develop favorable attitudes toward the brands which they have more information about – presumably the first brands to enter the market. Information about early entrants in a new product category is more easily memorized because it is likely to be perceived as novel and interesting. Furthermore, because of a greater familiarity, consumers should be more confident about the choice of pioneer brands. The typical positive general image attached to pioneers (original, innovator, high quality, and distinctive) could also increase the satisfaction of customers with these brands (Alpert & Kamins, 1994). Therefore, we propose that:

H3. An early market entry positively influences customer satisfaction.

The study of the effects of the order of entry on market share has attracted many researchers (Kalyanaram, Robinson, & Urban, 1995). Two broad categories of arguments have been used to explain first-mover advantages. On one hand, there are advantages related to the creation of barriers to entry, and, in particular, the preemption of scarce assets (Kerin et al., 1992; Parry & Bass, 1989). On the other hand, we cannot omit the cognitive, attitudinal and behavioral aspects of the consumers (Alpert & Kamins, 1994; Carpenter & Nakamoto, 1989; Kardes & Kalyanaram, 1992; Kardes, Kalyanaram, Chandrashekaran, & Dornoff, 1993; Schmalensee, 1982) and of retail buyers (Alpert et al., 2001) that may favor pioneering brands or products. In general, pioneering brands should be more easily recognized, and thus have more possibilities to form part of the consumer's evoked set and, consequently, to be chosen over follower brands (Alpert & Kamins, 1994; Kardes & Kalyanaram 1992; Kardes et al., 1993). Also, pioneer brands might benefit from a favorable global reputation (Alpert & Kamins, 1994). On numerous occasions, consumers are faced with choices where some of the key attributes or features are difficult to evaluate. Faced with this difficulty, it is not unusual for individuals to try to simplify the decision-making process by applying simple heuristic rules, such as rating a certain brand as superior in some characteristics because it is a pioneer brand. Besides, Schmalensee (1982) argued that, if a product is satisfactory, a rational consumer tends to be loyal rather than risk trying other brands. Despite the fact that some researchers have verified that pioneering firms can find their leadership being threatened by followers (Golder & Tellis, 1993; Schnaars, 1994), the market share advantage of first-movers is regarded as an empirical generalization (Kalyanaram et al., 1995; Murthi, Srinivasan, & Kalyanaram, 1996; Szymanski et al., 1995; Vanderwerf & Mahon, 1997), which leads us to formulate the following hypothesis:

H4. An early market entry positively influences a product's competitive position.

Boulding and Christen (2003) have verified that being first-to-market leads to an average long-term cost disadvantage. According to Schnaars (1994) followers save money in areas such as R&D and marketing because they may *free ride* on the investments made by their predecessors in order to introduce their products into the market. In general, it seems that imitating existing products costs less in terms of R&D than innovating, given that the mechanisms that first-movers can employ to protect the results of their research are not very effective (Mansfield, Schwartz, & Wagner, 1981). Furthermore, unlike pioneers, followers do not need to invest to educate and persuade potential buyers about the merits of a new product, especially for radical innovations. Thus, late-entrants can focus their marketing efforts on promoting their own brand (Lieberman & Montgomery, 1988; Schnaars, 1994). As a result of the savings made by followers, we can hypothesize that:

H5. An early market entry involves higher product costs.

Buzzell (2004) states that one of the most important empirical findings of the research based on the Profit Impact of Market Strategies (PIMS) database is the robust and positive connection between quality and firm performance. With regards to customer satisfaction, it must be noted that firms that are capable of launching products with unique attributes, higher quality and better service than those of the competitors should achieve higher customer satisfaction (Anderson, Fornell, & Lehmann, 1994). The launch of a larger variety of versions or models of a new product should also help to satisfy the unique tastes of the different market segments (Bohlmann et al., 2002). In the case of new industrial products, Hultink et al. (1997) confirm that firms which invest less in the development of high-quality products and limit themselves to offering similar products to those of their rivals create less customer satisfaction and have a weaker market position. Szymanski & Henard's (2001) meta-analysis on the determinants and consequences of satisfaction reveals that relative product advantage is a significant antecedent. This evidence leads us to formulate the following hypothesis:

H6. The adoption of a differentiation positioning positively influences customer satisfaction.

One might speculate that the higher price associated with a differentiation strategy could damage market share. However, perhaps due to the increased loyalty coupled with product quality, a higher price does not seem to negatively affect market share (Moore, Boulding, & Goodstein, 1991; Parry & Bass, 1989; Robinson, 1988; Robinson & Fornell, 1985). In addition to quality, offering a wider variety of models also allows companies to achieve higher sales figures and a stronger market penetration, since it increases the chances of each consumer finding a product that meets their needs and preferences, and it acts as a barrier to entry for new competitors by occupying a larger product attribute space (Bohlmann et al., 2002; Szymanski, Bharadwaj, & Varadarajan, 1993; Szymanski et al., 1995). Consequently, we hypothesize that:

H7. The adoption of a differentiation positioning positively influences a product's competitive position.

Differentiating by providing higher-quality products or a better customer service normally entails higher costs (e.g. more expensive supplies, higher labor costs). In addition, if the firm (as a part of its differentiation strategy) offers a product line with a greater variety of models, manufacturing will be more costly, will need a larger inventory, and logistics will be more complex (Szymanski et al., 1993). Therefore, although some expenditure will be lower when a firm differentiates its product through its quality (e.g. the absence of defects and complaints should allow savings in the maintenance and guarantee costs of after-sale service), it can be stated that, in general, differentiation strategies are more costly (Szymanski et al., 1993). As a result, we postulate that:

H8. The adoption of a differentiation positioning involves higher product costs.

Logically, the establishment of broader target markets for a new product, because of the greater availability of the product

and related services and the proximity to potential customers, should result in better sales figures and in an expansion of the firm's market share (Guiltinan, 1999). Furthermore, the mere presence in a larger number of markets can contribute to increasing the awareness of a new brand and to developing a favorable image, which will eventually boost sales. Oakley (1997) concludes that, as a result of shorter product life cycles, firms in high-technology sectors that set more ambitious targets for their new products and place an emphasis on an early introduction into overseas markets achieve a superior performance. Finally, targeting broader markets is also a demonstration of the firm's commitment to the product-market, which may discourage some potential rivals (Lieberman & Montgomery, 1988; McDougall, Covin, Robinson, & Herron, 1994). Consequently, we suggest that:

H9. Targeting broad markets positively influences a product's competitive position.

With regards to the influence of market scope on costs, the theoretical arguments related to the economies of scale and scope point towards the cost savings that might derive from broad market coverage. Due to the difficulties of adequately coordinating the commercialization of the product in diverse markets, on many occasions such economies can be better explained theoretically than in reality. However, we consider that the negative relationship between the scale of operations and costs should be evident, and accordingly we propose that:

H10. Targeting broad markets involves lower product costs.

2.3. Relationships between the performance dimensions

We believe there is a logical sequence in which the results of a new product launch become apparent. Satisfaction (or dissatisfaction) is the first market outcome that is gathered. A good perception of the product's value by the customers will positively influence the sales and market share that the product will eventually attain. Although satisfaction and market share might be incompatible goals (Anderson et al., 1994), satisfaction should facilitate customer retention, and hence, it should lead to higher sales figures and to a stronger competitive position (Rust & Zahorik, 1993). Szymanski and Henard (2001) verify that satisfaction is positively related to loyalty, operationalized as repeat purchasing. The high correlation observed by Huang, Soutar, and Brown (2004) between subjective measures of market acceptance (e.g. customer satisfaction) and more objective measures (e.g. market share) also serves as empirical evidence in support of the following hypothesis:

H11. Customer satisfaction positively influences a product's competitive position.

Since the publication of the first results from the Strategic Planning Institute's PIMS Program in the 1970s, the empirical findings concerning the positive relationship between market share and profitability have been a subject of controversy. Although Buzzell (2004) considers these findings robust, not all researchers accept this association. For example, Jacobson and Aaker (1985) and Laverty (2001) argue that the high positive correlation that exists between the two variables is spurious, probably a consequence of not controlling the effect of factors that influence both variables simultaneously, such as management skills or the preemption of scarce resources. Boulding and Staelin (1990) also draw attention to the uncertainty concerning the influence of market share on profitability. They suggest diverse environmental factors related to the firm's power over suppliers and buyers, the competitive rivalry, or the threat of entry by new competitors that could affect profitability and alter its relationship with the competitive position. Nevertheless, in the literature on this topic there is widespread support for the hypothesis that suggests that market share – the most common indicator used to measure competitive position – positively influences profitability. Although Szymanski et al. (1993) conclude that this influence is contingent on modeling, sample and measurement factors, their meta-analysis of the market share–profitability relationship shows that the reported market share elasticities are, on average, positive and significantly different from zero, and that the number of positive elasticities is significantly greater than the number of negative ones. Even Boulding and Staelin (1990), who are critical of this relationship, admit that firms operating in good environments can improve their profits via increases in market share because they benefit from a higher volume without an offsetting margin reduction. Consequently, based on the results of previous studies and on the retrospective appraisal of the main findings of the PIMS project recently presented by Buzzell (2004), we suggest that:

H12. A product's competitive position positively influences its profitability.

Finally, to complete this group of hypotheses about the links among the diverse performance dimensions, we propose the existence of a negative relationship between product costs and profitability. Obviously, a product's profitability depends on the profits attained with its launch, which in turn are calculated as the difference between the revenues and the costs associated with that product. This leads us to the (unnecessary) defense of the following hypothesis:

H13. Product costs negatively influence product profitability.

3. Methodology

3.1. Data collection

To test the hypotheses of the research model, data were gathered using a cross-sectional survey methodology. A questionnaire was mailed to CEOs or marketing managers of Spanish firms with over 50 employees belonging to sectors

with high innovation rates[3]: SIC codes corresponding to numbers 20 – food industry, 28 – chemical products industry, 30 – rubber and plastic products industry, 35 – machinery industry, 36 – electrical and electronic machinery industry, and 37 – transport material industry. The advantage of the selection of a wide and varied number of sectors is that it enables generalization of the results beyond the idiosyncratic nature of a specific industry.

Each manager received, together with the questionnaire, an introductory letter inviting him to take part in the survey and informing him about the characteristics of the study, our commitment to dealing the data confidentially, and the benefits of participating in terms of access to the results of the research. Respondents were asked to base their answers both on a market in which their firm had penetrated in the last 5 years and in which competition already existed at the time of replying, and on a product whose commercialization – independently of whether it was considered innovative by its potential users – had constituted a challenge for their firm at that moment.

After a follow-up by telephone, 136 complete questionnaires were received, which represents an 8.2% response rate. Table 1 summarizes a characterization of our population and sample in terms of number of firms, turnover and number of employees. On average, the sample firms have 341 employees and a turnover of 63.4 million euros. On a scale ranging from 1 to 5, the importance of the selected product used to answer the questionnaire and its degree of relationship with the firm's activities are, respectively, 3.39 and 4.01.

Self-selection bias is the most serious problem associated with low response rate in survey research (Wilson, 1999). To address this issue we used Armstrong and Overton's (1997) time–trend extrapolation procedure. The sample was divided into early respondents (the first to answer the questionnaire, 67%) and late respondents (the remaining 33%), and no significant differences emerged in the mean responses on any of the constructs. In addition, as can be seen in Table 1, no statistically significant difference was observed between the proportion that each sector accounted for in the total population and in the sample ($\chi^2 = 1.40$, $df = 5$, $p > 0.90$). We also compared population and sample means for two known characteristics, turnover and number of employees, and significant differences were only found in the machinery sector, in which the firms of our sample present higher levels for both figures. Together, these results suggest that industry bias and non-response bias were not a major problem, and that our sample can be considered as fairly representative of the population.

3.2. Measures

A pretest of the questionnaire was conducted through six in-depth interviews with CEOs and marketing executives. Participants were asked to identify items that were confusing, questions that were difficult to respond to, and any other problems they encountered. With the information from this pretest, the questionnaire was reworked until a final version was elaborated.

With regards to the measurement of the research variables (Table 2) we have to mention that for the order-of-entry, four categories were established: 'pioneer', 'one of the pioneers', 'early follower' and 'late entrant'. This way of measuring is similar to that used in research using the STR2 and STR4 databases of the Strategic Planning Institute (Miller et al., 1989; Robinson, Fornell, & Sullivan, 1992). Instead of using the three traditional categories – i.e., 'pioneer', 'early follower' and 'late entrant' – we have preferred to echo the opinions of those who note that the advantages attributed to pioneers can also be applicable to 'early leaders' (Golder & Tellis, 1993), and thus to include the category 'one of the pioneers'. Robinson et al. (1992) remark that it is right to assign a group of firms the role of 'pioneers', since their combined effort has contributed to innovation and market consolidation. For the empirical analysis, the scale ranges from 1 to 4, assigning 1 point to late entrants and 4 to pioneers. Of the firms in the sample, 44 were pioneers in the particular product category they selected for responding to the questionnaire, 34 were 'one of the pioneers' in the product-market, 38 were early followers and 20 were late entrants. To check the reliability of the answers on entry order, a later survey with 24 of the 136 products evaluated reveals that in 83% of the cases, the information provided is absolutely consistent.[4] A similar study performed for the pharmaceutical products in the sample confirms the quality of the information on this variable.[5]

The positioning covers aspects related to relative price, product quality, service quality and product line depth at the time of market entry (Hultink et al., 1997; Lambkin, 1988, 1992; McDougall et al., 1994; Miller et al., 1989; Murthi et al., 1996; Robinson, 1988; Robinson & Fornell, 1985; Szymanski et al., 1995). These four items were measured on a 5-point scale, where 1 means 'extremely inferior to competitors' and 5 'extremely superior to competitors'. The scope, measured with

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[3] The sectors were selected according to data on the percentage of innovative companies, the innovation expenses and the relative importance of product innovations over process innovations. We extracted the information from Spain's 2000 Technological Innovation Survey (INE, 2002). Our selection of sectors in accordance with their innovative nature matches the ranking elaborated by CORDIS (Community Research and Development Information Service) using the Innovation Sector Index published since 2004 as part of the "European Innovation Scoreboard" report (Commission of the European Communities, 2004).

[4] For a selection of 24 of the 136 product-markets of our sample, the authors asked an instructed group of collaborators – divided in teams – to establish the sequence of entry of all the brands competing in that particular market. Each team only knew the brand name and the manufacturing firm of the product for which we wished to research the real order of market entry. A total of 20 of the 24 products included in this study were without doubt classified in the same category of entrant that the questionnaire's respondent assigned it to. In the remaining 4 cases, the team members did not reach unanimity about how to classify that product (i.e. there existed controversy about whether that particular firm was, for instance, one of the pioneers or an early follower, etc.), but the category stated by the respondent was always one of the acceptable alternatives.

[5] In the case of the pharmaceutical industry (included in the chemical products industry), we consulted the medicine database of the General Spanish Council of Pharmacists (www.portalfarma.com), which contains information on the year of market entry of all the medicines commercialized in Spain.

Table 1
Population and sample profile

Industry	Population (%)	Sample (%)	Proportion test
20. Food.	314 (18.9%)	31 (22.8%)	1.081
28. Chemical products.	376 (22.6%)	30 (22.1%)	−0.163
30. Rubber and plastic products.	196 (11.8%)	15 (11.0%)	−0.287
35. Machinery.	302 (18.2%)	24 (17.6%)	−0.164
36. Electrical and electronic machinery.	267 (16.1%)	20 (14.7%)	−0.451
37. Transport material.	206 (12.4%)	16 (11.8%)	−0.231
Total	1661 (100%)	136 (100%)	

Industry	Average turnover (in million euros)			Average number of employees		
	Population (S.D.)	Sample (S.D.)	Mean test	Population (S.D.)	Sample (S.D.)	Mean test
20. Food.	69.1 (110.0)	58.9 (56.2)	−0.51	321 (516)	324 (486)	0.04
28. Chemical products.	74.1 (126.9)	60.0 (69.0)	−0.61	249 (279)	260 (273)	0.22
30. Rubber and plastic products.	45.1 (144.1)	27.1 (22.7)	−0.48	246 (641)	182 (164)	−0.39
35. Machinery.	53.8 (135.5)	108.7 (284.5)	1.99	255 (480)	532 (1061)	2.83
36. Electrical and electronic machinery.	70.4 (149.5)	28.1 (21.7)	−1.27	338 (553)	172 (105)	−1.34
37. Transport material.	264.4 (900.8)	89.7 (152.9)	−0.78	766 (1900)	608 (1326)	−0.33
Total	89.0 (346.3)	63.4 (137.9)	−0.86	342 (824)	341 (695)	−0.00

an identical scale, includes aspects related to the scope of market coverage and to the density of the distribution network (Covin et al., 2000; Guiltinan, 1999; Hultink et al., 1997; Lambkin, 1988, 1992; McDougall et al., 1994).

Following the recommendations of authors such as Griffin and Page (1993, 1996), we have collected information that enabled us to evaluate different dimensions of both market and financial performance. Customer satisfaction, product costs and product profitability have each been measured with two items: one relative to the firm's prior expectations and the other relative to competitors in the product-market. Competitive position was measured with multiple items that reflected the evolution of sales and market share – both assessed in relation to the firm's expectations and its competitors – and the relative strength of the product's competitive position.

3.3. Data analysis

A structural equation modeling (SEM) analysis has been used to test the research hypotheses. Within SEM techniques, two approaches can be identified. The *covariance-based SEM* (Bollen, 1989; Jöreskog, 1970) is a widely accepted approach, in part due to the development of several computer programs (e.g. LISREL, EQS and AMOS) allowing the estimation of this kind of model. Conversely, the *Partial Least Squares* (PLS) approach (Chin, 1998; Fornell & Cha, 1994; Hulland, 1999) is much less widespread.

According to Chin and Newsted (1999), amongst other things, both methodologies of causal modeling differ in the statistical assumptions regarding distribution of the observed variables, in the sample size requirements, and in the types of relationship between the observed variables and the associated constructs that can be modeled. The use of covariance-based SEM involves the assumption that the observed variables follow a specific multivariate distribution (normality in the case of Maximum Likelihood, the function typically used for estimat-

ing these kinds of models) and requires a sample size which is often beyond the range of researchers, especially if the models to be tested are complex. The alternative methods to the Maximum Likelihood estimation that allow us to work with non-normal data demand even larger samples. Solutions for making model estimation feasible, such as imposing parameter restrictions, disregarding variables in the model, or decreasing the number of indicators for some latent variables, are not advisable (Raykov & Widaman, 1995). In PLS, measurement and structural parameters are estimated via an iterative procedure which combines simple and multiple regression by traditional Ordinary Least Squares (OLS), thus avoiding any distributional assumption of the observed variables. Moreover, due to the partial nature of this methodology, where the model parameters are estimated in blocks, the sample size required in PLS is much smaller.

Another important difference between covariance-based SEM and PLS is related to the types of measurement model that can be analyzed. The first methodology typically requires that all the constructs are measured through reflective indicators (i.e. the observed variables are influenced or affected by the corresponding underlying latent variable, which accounts for their inter-correlation). A less common measurement perspective is based on the use of formative indicators (Bollen & Lennox, 1991; Diamantopoulus & Winklhofer, 2001; Jarvis, Mackenzie, & Podsakoff, 2003). In this situation, the direction of the relationship between the unobserved and the observed variables is the opposite. The indicators cause or form the corresponding construct, which could be viewed as an index rather than a scale. Since traditional SEM attempts to account for all the observed variances and covariances, the use of formative indicators is somewhat problematic (Chin, 1998). PLS can handle both types of measurement models, reflective and formative (Chin & Newsted, 1999).

Between the two alternative SEM approaches, we have selected PLS mainly because our variables are not normally

Table 2
Descriptive statistics, reliability and convergent validity

Variables and measured items	Mean (S.D.)	Weight	Loading	t statistic
Order-of-entry (n.a.)	2.75 (1.07)	–	1.00	–
Positioning (n.a.)				
Relative price	3.21 (0.79)	0.06	–	0.49
Relative product quality	3.92 (0.72)	0.73	–	5.23
Relative service quality	3.78 (0.72)	0.43	–	3.05
Relative product line depth	3.52 (0.94)	0.18	–	1.50
Scope (n.a.)				
Relative market scope	3.45 (0.93)	0.80	–	2.87
Relative density of the distribution network	3.20 (0.95)	0.29	–	1.07
Satisfaction ($\rho_c = 0.85$, AVE = 0.75)				
Satisfaction relative to the firm's expectations	3.79 (0.79)	–	0.85	25.33
Satisfaction relative to the firm's competitors	4.07 (0.69)	–	0.88	37.06
Competitive position ($\rho_c = 0.91$, AVE = 0.66)				
Market share relative to the firm's expectations	3.45 (0.97)	–	0.76	21.56
Market share relative to the firm's competitors	3.57 (0.97)	–	0.79	17.44
Sales relative to the firm's expectations	3.58 (0.95)	–	0.81	30.46
Sales relative to the firm's competitors	3.69 (0.93)	–	0.86	28.34
Competitive position achieved	3.79 (0.98)	–	0.83	24.58
Costs ($\rho_c = 0.85$, AVE = 0.74)				
Costs relative to the firm's expectations	3.04 (0.63)	–	0.80	11.19
Costs relative to the firm's competitors	2.95 (0.75)	–	0.92	24.49
Profitability ($\rho_c = 0.89$, AVE = 0.80)				
Profitability relative to the firm's expectations	3.27 (0.81)	–	0.88	25.32
Profitability relative to the firm's competitors	3.50 (0.79)	–	0.91	36.99

n.a.: non-applicable.

distributed, because this technique is robust for small-to-moderate sample sizes such as ours, and because of the formative nature of some of the measures used in this research.

Our model includes both latent (measured with reflective indicators) and emergent (formative) constructs. In particular, market scope and product positioning are composites formed or caused by the corresponding observed variables, while the four performance dimensions constitute unobserved variables reflected in a set of manifest variables. We estimated our model using PLS-Graph 3.00 Build 1126 (Chin, 2003). Since traditional parametric tests are inappropriate when no assumption is made about the distribution of the observed variables, the level of statistical significance of the coefficients of both the measurement and the structural models was determined through a *bootstrap* re-sampling procedure (500 sub-samples were randomly generated). Structural model evaluation is conducted by examining the size and significance of the path coefficients and the R^2 values of the dependent variables.

4. Results

Following the two-step approach suggested by Anderson and Gerbing (1988), before the testing and assessment of the structural model, we analyzed the reliability of individual reflective items and the corresponding constructs, as well as the convergent validity and discriminant validity of our measures. As can be observed in Table 2, all the reflective item loadings are significant and greater than 0.7, which is the generally recommended threshold. We evaluated composite reliability using the internal consistency measure (ρ_c) developed by Fornell and Larcker (1981). A construct is considered reliable if ρ_c is at least 0.70 (Nunnally, 1978). We also examined the average variance extracted (AVE) of each latent construct, which should be greater than 0.5. All the reflective constructs exceed these conditions (see Table 2). Discriminant validity is established by comparing the square root of AVE (i.e. the diagonals in Table 3) with the correlations among latent variables (i.e. the off-diagonal elements in Table 3). For each reflective construct, the square root of its AVE should be greater than its correlation with any other construct, which means that it shares more variance with its own measures than with other constructs in the model. This condition is met in all the cases. In addition, another test of discriminant validity can be obtained by calculating the cross-loadings. It was verified that each reflective item loads more on the construct it intends to measure than on any other construct, and that each latent variable relates more to its own manifest variables than to the indicators of other constructs.

Table 3
Correlation matrix

	Order of entry	Positioning	Scope	Satisfaction	Competitive position	Costs	Profitability
Order of entry	n.a. [a]						
Positioning	0.27	n.a.					
Scope	0.22	0.44	n.a.				
Satisfaction	0.26	0.46	0.18	0.87			
Competitive position	0.30	0.45	0.34	0.59	0.81		
Costs	0.04	0.22	−0.01	−0.02	0.00	0.86	
Profitability	0.09	0.20	0.20	0.32	0.43	−0.28	0.89

n.a.: non-applicable.
[a] Diagonal elements are the square root of the average variance extracted (AVE).
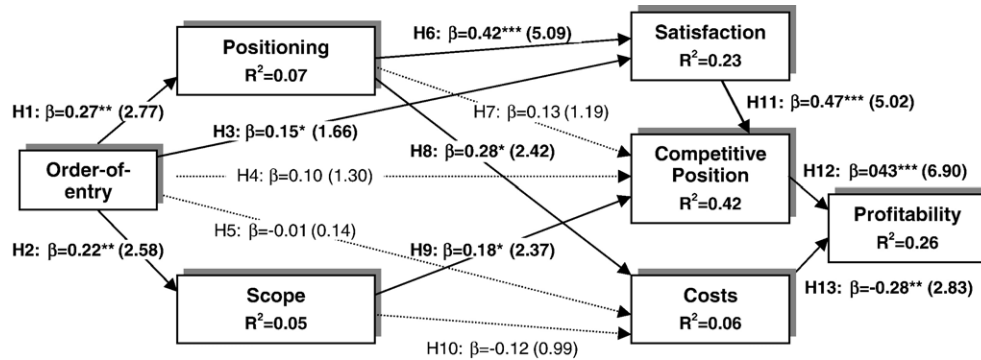
Fig. 2. Structural model results. Note: *t* statistic values appear in parentheses. Significant relationships appear in bold and with a continuous path. ***$p<0.001$, **$p<0.01$, *$p<0.05$ (based on a one-tailed test).

For emergent constructs (i.e. those using formative indicators), in Table 2 weights instead of loadings are reported. Item weight represents its relative contribution in the formation of the corresponding construct. It is necessary to bear in mind that neither is it assumed nor required that formative indicators are correlated; therefore, traditional measures of internal consistency and validity assessment are inappropriate and illogical (Bollen, 1989; Chin, 1998; Hulland, 1999). This explains why the information about the measurement of positioning and scope in Tables 2 and 3 is classified as 'non-applicable'.

Fig. 2 summarizes the results of the PLS analysis performed to test the structural model. In particular, the standardized path coefficients (β), the significance level (*t* statistic) and the value of the R^2 of the dependent variables are shown. Our hypotheses are supported, with the exception of H4, H5, H7 and H10, which are rejected. In Table 4 we provide further information, including indirect and total effects of the relationships proposed in our hypotheses.

The two hypotheses considering the links between order-of-entry and the other entry decisions are supported. In other words,

early entry strategy usually goes together with the adoption of a differentiation-based positioning (H1, $\beta=0.27$, $p<0.01$) and the selection of broader target markets (H2, $\beta=0.22$, $p<0.01$).

Of the three hypotheses about the direct relationships between order-of-entry and performance – H3 to H5 – only H3, which deals with the effect of order-of-entry on customer satisfaction, has been confirmed ($\beta=0.15$, $p<0.05$). Surprisingly, H4 was rejected. We have not found a significant direct relationship between order of market entry and competitive position, despite the abundant academic research defending its existence. One explanation could be that in this study, unlike other research papers, we control for the mediating role of customer satisfaction in the entry order–competitive position relationship. Without such a control, the direct effect of order-of-entry on competitive position is probably over-estimated. In any case, we are not suggesting that order-of-entry does not influence competitive position. As can be observed in Table 4, there is a positive indirect effect ($\beta=0.20$) between these two variables. Entry order does affect competitive position, but this effect is produced via positioning, market scope and customer satisfaction. H5 was also rejected. Contrary to the viewpoint of authors such as Schnaars (1994), we have failed to find significant cost differences between early and late entrants.

Regarding the hypotheses about the relationship between positioning and performance, H6 and H8 are supported, but not H7. The confirmation of H6 ($\beta=0.42$, $p<0.001$) and the rejection of H7 imply that, as in the case of order-of-entry, a product's positioning does affect competitive position, but indirectly, through customer satisfaction. Finally, as stated in H8, the positive and significant coefficient measuring the positioning–costs relationship ($\beta=0.28$, $p<0.05$) proves that differentiation strategies entail higher costs.

Of the two hypotheses that relate scope and performance, H9 is verified, but not H10. As anticipated, targeting broad markets translates into a stronger competitive position ($\beta=0.18$, $p<0.05$), in contrast to firms covering small geographical areas, which should not expect to conquer a significant position in the marketplace. H10, in which we proposed a negative relationship between market scope and costs based on the effect of economies

Table 4
Direct, indirect and total effects

	Direct	Indirect	Total
Order of entry → positioning (H1)	0.27	–	0.27
Order of entry → scope (H2)	0.22	–	0.22
Order of entry → satisfaction (H3)	0.15	0.11	0.26
Order of entry → competitive position (H4)	0.10	0.20	0.30
Order of entry → costs (H5)	−0.01	0.05	0.04
Order of entry → profitability	–	0.12	0.12
Positioning → satisfaction (H6)	0.42	–	0.42
Positioning → competitive position (H7)	0.13	0.20	0.33
Positioning → costs (H8)	0.28	–	0.28
Positioning → profitability	–	0.06	0.06
Scope → competitive position (H9)	0.18	–	0.18
Scope → costs (H10)	−0.12	–	−0.12
Scope → profitability	–	0.11	0.11
Satisfaction → competitive position (H11)	0.47	–	0.47
Satisfaction → profitability	–	0.20	0.20
Competitive position → profitability (H12)	0.43	–	0.43
Costs → profitability (H13)	−0.28	–	−0.28

of scale, is not supported by the data. The corresponding path coefficient is, as expected, negative ($\beta = -0.12$), but not significant. Cost savings attributed to the scale effects of broad market coverage can be reduced by the higher costs of coordinating activities in large and diverse territories (Vermeulen & Barkema, 2002).

All three hypotheses – H11 to H13 – concerning the relationships between the different performance dimensions were confirmed. According to our findings, customer satisfaction positively influences competitive position (H11, $\beta = 0.47$, $p < 0.001$), competitive position positively influences profitability (H12, $\beta = 0.43$, $p < 0.001$), and product costs negatively impact on profitability (H13, $\beta = -0.28$, $p < 0.01$).

To conclude, the model presented in this paper exhibits an acceptable capacity to explain a firm's competitive position in the product-market and profitability (see the R^2 values of these variables in Fig. 2). Customer satisfaction is also reasonably well explained by the dimensions of the market entry strategy contemplated in this study; however, the R^2 value of product costs is quite low. In our model, we attempt to explain the variation of this construct using only three variables (order, positioning and scope), from which just one, product positioning, turned out to be a significant antecedent. As a consequence, we can say that the entry decisions on which we have focused this research are insufficient to explain the costs borne by firms commercializing new products. We have considered some important decisions pertaining particularly to the area of marketing, but we left aside some other marketing variables (e.g. promotion) and many other strategic factors which could affect product costs, such as the decisions related to the production and operations management or the human resource issues. The coefficients of determination of positioning and scope are also low, but this is not especially relevant since our objective is not to explain these variables and to identify their antecedents but to assess the impact of these decisions on the eventual success or failure of a new product and to analyze their mediating role in the entry order–performance relationship.

5. Discussion and managerial implications

This study analyzes the links between three dimensions of market entry – order, positioning and scope – and four dimensions of performance – satisfaction, competitive position, costs and profitability. It also specifies the potential internal relationships existing between the entry decisions considered, and between the diverse entry outcomes. This research has enabled us to discover how the relationships of order-of-entry with competitive position and profitability are not direct, but mediated by the product's positioning and market scope, as well as by satisfaction and costs. These mediating effects had been largely ignored in the literature, which mainly focused on the direct effect of order-of-entry on market and financial performance. Thus, our findings highlight the importance of differentiating, targeting broad markets and delivering superior customer satisfaction as paths to a good market share and an acceptable profitability. We structure our discussion around the

following paths along which the indirect effects of order-of-entry on performance are channeled (see again Fig. 2):

1) Order → satisfaction → competitive position → profitability
2) Order → positioning → satisfaction (and costs) → competitive position → profitability
3) Order → scope → competitive position → profitability.

Firstly, an early entry has a positive direct effect on customer satisfaction, and via satisfaction, it constitutes a way of achieving a better competitive position and, eventually, better profitability. This result highlights the importance of the behavioral perspective in the realization of a good performance by pioneers. In other words, it is evidenced that first-entrants can influence to their benefit the way consumers identify and evaluate the key attributes of a new product category, which will result in a greater satisfaction (Carpenter & Nakamoto, 1989). The positive attitudes that consumers tend to have towards pioneering brands due to a greater familiarity (Kardes & Kalyanaram, 1992) or to favorable beliefs regarding these brands (Alpert & Kamins, 1994) might also explain our findings. Consequently, for a pioneer in a new product-market it is crucial to focus its marketing actions on adequately satisfying the customer if it aims to consolidate a good competitive position. Identifying the attributes that users value the most in the product, developing favorable opinions, enhancing brand awareness or making use of the positive image that pioneering brands usually have among consumers are routes to this end.

Apparently, the greater customer satisfaction and, in turn, the stronger competitive position that early-entrants tend to achieve do not involve bearing significantly higher costs than followers in the market. Boulding and Christen's (2003) empirical findings about the cost disadvantages of pioneering firms are refuted in our study. Possibly, the pioneers' cost disadvantages derived from their greater investment in activities such as R&D or marketing are compensated by cost advantages due to other factors such as scale and experience effects, patents, preemption of some sources of supply, etc. This result, coupled with the favorable observed impact of order on the commercial dimensions of performance, allows us to affirm that, on average, early market entry has a positive net effect on a product's profitability.

Secondly, product positioning is a key factor in the process through which an early entry in the market results in a better performance. We have corroborated the opinion of authors such as Robinson (1988), Lambkin (1988) or Szymanski et al. (1995) about the propensity of pioneering firms to select a differentiation positioning. Pioneers tend to differentiate themselves as the highest-quality provider, and are in a propitious position to build a positive reputation or brand image. In addition, technological leadership can help a pioneer to preserve a product quality lead over its competitors (Song et al., 1999). By establishing a correct differentiation strategy, early entrants can enhance and consolidate a competitive advantage which is difficult to overtake for late entrants. Differentiation increases the pioneer's perceived value, facilitates customer retention, and, thus, permits this kind of firm to conquer larger market

shares and to achieve higher profitability with their new products. But a differentiation positioning will not lead to a stronger competitive position if potential customers do not rightly appreciate the quality of the products and the related services or the assortment being offered. Again, the inclusion of customer satisfaction as a mediating variable could explain our departure from prior evidence of a direct relationship between positioning variables and market share (Moore et al., 1991; Parry & Bass, 1989; Robinson, 1988; Robinson & Fornell, 1985). However, the adoption of a differentiation strategy involves higher costs, which in turn negatively affect profits. Firms that aim to launch products of a higher relative quality, with more versions and with a better customer service have to incur costs above those of their rivals. In brief, through a differentiation positioning, an early entry in new product-markets has a positive effect on customer satisfaction and competitive position and a dual effect on profitability: a positive one through market performance, and a negative one through costs. Therefore, differentiation strategies must be carefully managed if a firm's main goal for a new product is profitability rather than market share.

Finally, market scope is another intervening variable on the path along which order-of-entry may influence the relative success of a new product. Early entrants tend to serve larger geographical markets and to use a wider distribution network, and the decision to serve a broader target market has a positive direct effect on competitive position. In line with the opinion of authors such as Lambkin (1988, 1992), McDougall et al. (1994) or Oakley (1997), we consider that a firm entering new product-markets must contemplate an aggressive launch, targeting larger markets (including overseas markets) and more segments than its rivals as a good way to consolidate its competitive position. This strategy seems particularly appropriate for pioneering firms or business units (Lambkin, 1992). A fast and large-scale entry can help to preempt the best locations and to offer a superior marketing mix (at least as far as distribution is concerned). In contrast, the expected cost advantage associated with broader market scope was not confirmed (the corresponding coefficient is negative, but non-significant). It seems that the cost savings due to a larger scale of operations are to some extent mitigated by the extra difficulties of coordinating a more numerous and more disperse sales force (Vermeulen & Barkema, 2002). In any case, the positive effect of market scope on competitive position and the apparent lack of influence of this variable on costs make targeting broader markets an advisable strategy that managers should consider.

6. Conclusions, limitations and future research

In summary, our findings reveal that all the three strategic decisions included in our model of market entry do affect performance, although their influence changes according to the performance dimension being measured. In particular, we have observed that, contrary to our expectations, the order-of-entry, a central issue in a new product launch plan, is neither positively related to competitive position nor negatively to costs. This discovery does not lead us to negate the numerous pieces of evidence provided in the literature about the market share advantages of pioneers. Instead, we argue that an early entry

does not automatically ensure a strong market position or high profitability, but it may indirectly influence performance through positioning, scope and satisfaction. These variables help to explain how a pioneering strategy can make the entry in a new product-market successful. Entering the market early will be a useless initiative if the firm is unable to take advantage of its lead-time to effectively differentiate its offering and satisfy its clientele, or if firm's managers are not sufficiently ambitious in the selection of the target markets.

This survey is obviously subject to some caveats. Firstly, we would highlight the measurement limitations. Given the diversity of products and sectors included in our study, it seems inappropriate (as well as difficult) to use real figures for the research variables, since objective measures (e.g. entry order, product quality and price, distribution network, market share, profitability) can only be interpreted in a particular sector and for a specific product category. Due to this, we have used subjective measures based on the perceptions of participating managers. Undoubtedly, these kinds of measures can be subject to bias, and consequently our findings must be interpreted with caution. Nevertheless, in our favor, we can state that in the case of order of market entry we have checked the reliability of the responses received.

Secondly, a single key informant provided the data in each company. Aviolo, Yammarino, and Bass (1991) note that studies employing single-source methodology may be biased by artificially high inter-correlations because of an overall positive or negative response bias. These authors remarked, however, that simply assuming that single-source data are less valid than multi-source data is overly simplistic. Furthermore, our data support the relative lack of response bias. Our results show acceptable discriminant validity between constructs, with generally moderate inter-correlations between the variables. The average correlation between variables was 0.26, and Harman's one-factor test (Podsakoff & Organ, 1986) does not reveal that common-method bias is a major problem in our sample. Adopting the eigenvalue greater than one rule, five factors were extracted, and the first one explains only 28.9% of the variance. Nevertheless, future research should address the single-source issue, since past research has called attention to the diversity of perceptions among multiple functional areas (Song, Xie, & Di Benedetto, 2001).

Apart from the necessary improvements in the measurement process, some other lines of further research can be suggested. For instance, an interesting extension would be to complete our analysis of the performance consequences of a new product launch by introducing as entry dimensions other strategic variables such as the scale or the resonance, and to examine their impact on a product's commercial and financial success. These variables could help to improve the explanation of the costs associated with the market entry, a construct whose variation is poorly explained by the decisions contemplated in this work. In addition, the variables configuring the market entry strategy should not be considered as exogenous. Consequently, the factors determining the decisions on timing, positioning and markets targeted should be explored. Undoubtedly, the resources and capabilities of a firm are among the factors with the greatest

impact on these decisions. The incorporation of these internal variables in a market entry model should help us to understand how different assets and skills are mobilized through a particular set of decisions to make a new product commercially and financially successful. In other words, we plan to extend this research by evaluating the mediating role of entry strategy in the relationship between a firm's resources and capabilities and the outcomes of entering a new product-market.

Moreover, the Spanish context of our study might place some constraints on the generalizability of the results to other national contexts. Spain shares many characteristics with other developed Western economies in terms of technological development, consumer behavior or social and market conditions. The coincidence in the rankings of sectors according to their innovative nature elaborated by the INE (Spanish National Institute of Statistics) and the CORDIS – see Footnote 3 – constitutes a sign of the similarities in the behavior of companies in Spain and other European countries. Furthermore, many firms in our sample are divisions or business units of multinational corporations, and there is no reason to expect extreme disparities in the management of these divisions across countries. Nevertheless, multi-country research conducted by Song et al. (1999) confirms that there are significant differences in the perceptions of managers of Western and Asian Pacific firms regarding the advantages and disadvantages of pioneering. Therefore, further research in other geographical regions will help to determine whether our conclusions are of global importance or whether the relationships examined in this paper are subject to variations due to differences in cultural and business environmental contexts.

Finally, as Song et al. (1999) point out, there are differences in the perceived advantages and risks of pioneering between manufacturing and service sectors, and it seems reasonable to expect that, even within manufacturing sectors, some industries will be more conducive to pioneering advantages than others. Consequently, additional research using samples from diverse service markets or from other industries is needed to ascertain the generalizability of our findings.

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