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The international diversification-performance link in Spain: Does firm size really matter?

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ABSTRACT

This study provides new insights into the link between international diversification and firm performance in a sample of large manufacturing firms and SMEs based in Spain for the 1994–2008 period. Specifically, the focus is on how the nature and shape of this relationship may vary over time with firm size. The results show the existence of a horizontal-S curve when the whole sample of firms is considered in the empirical analysis. However, major differences are found between SMEs and large firms, and even within the actual group of SMEs. Strong support is found in large firms for the existence of a horizontal-S curve. Within the group of SMEs, there are small firms with a linear and negative relationship, whereas medium-sized firms record a U-shaped form. These findings suggest that as the international diversification-performance link is size-dependent, future research should explicitly consider firm size in order to better understand the nature of this relationship.

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1. Introduction

Recent years have seen firms increasingly expanding into international markets. This deployment has meant that research into international diversification (ID, hereafter) has aroused considerable interest among scholars (Chang & Wang, 2007; Hitt, Hoskisson, & Kim, 1997; Pla-Barber & Alegre, 2007). Accordingly, the research question of whether ID has a bearing on firm performance (P, hereafter), and how it does so, has become an especially relevant, albeit controversial, study topic within the field of international business studies (Bausch & Krist, 2007; Hennart, 2011; Hitt, Tihanyi, Miller, & Connelly, 2006; Kirca et al., 2011).

There is a well-known lack of consensus among researchers on the nature of the link between ID and P. Some researchers find a linear and positive link (e.g., Delios & Beamish, 1999; Pangarkar, 2008; Rugman, 1979), while others find a negative effect (e.g., Brewer, 1981; Collins, 1990; Colpan, 2008). Yet the assertion of

linearity between the degree of ID and P has been challenged by an increasing number of empirical studies in recent years. Thus, significant results seem to range from a U-shaped curve (e.g., Kistruck, Qureshi, & Beamish, 2013; Qian, 1997) to an inverted U-shaped one (e.g., Driffield, Du, & Girma, 2008; Hitt et al., 1997). Finally, other studies find a horizontal S-shaped relationship (e.g., Contractor, Kundu, & Hsu, 2003; Fisch, 2012; Lu & Beamish, 2004; Sung, Bell, & Park, 2008).

This study provides new insights into this important debate, which is still ongoing in the field of international business, especially at a time when business managers across the board are fully aware that competition is being played out in an increasingly globalized competitive arena. Specifically, it seeks to answer the two following interrelated questions: (1) what effect does ID have on firm performance in a country? (2) Is the nature and shape of this effect similar in small, medium and large firms or, by contrast, does each group of firms record different internationalization patterns? By answering both questions, this study intends to look into the role that context and, mainly, firm size can play in the ID–P relationship.

Most past research on the ID–P relationship has been primarily interested in exploring large MNEs. There are only a handful of

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studies focusing on SMEs (e.g., Chiao, Yang, & Yu, 2006; Fisch, 2012; Hsu, Chen, & Cheng, 2013; Lu & Beamish, 2001; Pangarkar, 2008; Qian, 2002). There are virtually no empirical studies that have simultaneously examined such a link in a single sample of large firms and SMEs. In fact, until recently, the field of international business has generally been more concerned with large MNEs than SMEs. The lack of evidence on SMEs is somewhat striking given that these firms make a major contribution to an economy in terms of both employment and gross value added.¹ Moreover, the consideration of a large sample of firms of different sizes is more representative of the internationalization strategy and its link to the performance of a country's industrial fabric. Thus, this study is one of the first attempts to explore the effect that ID may have on P in a panel of firms that includes both large firms and SMEs. A marked exception is, to a certain extent, the study by Fisch (2012), who finds support for the existence of a horizontal S-shaped curve in the full panel and subpanels of SMEs and large firms, although the shape of the ID–P link is attenuated for large firms.

However, unlike Fisch (2012) and past research exploring SMEs, this study also differentiates between small and medium firms within the actual group of SMEs. Thus, it initially sets out to test the validity of the horizontal S-shaped model in a panel of small, medium and large firms in a developed country (Spain). This model distinguishes three stages—early, mid-stage and highly internationalized firms—and has been confirmed only in advanced economies. Specifically, this model suggests that these economies are more likely to contain a significant number of firms in all stages. Emphasis is placed here on the role that context (i.e., home country) can play insofar as it is assumed that firms in an advanced economy are more likely to record higher degrees of ID than their counterparts in an emerging economy. Yet the horizontal S-shaped model does not in itself allow finding out which specific type of firms may be in each stage when firms of different sizes are examined together. Accordingly, subpanels of large, medium and small firms are then separately analyzed in order to better clarify this issue. This analysis helps to prove the extent to which each specific type of firm has a similar or different ID–P link and, ultimately, provides a more complete and realistic picture of the nature of this link in each type of firm in a country. In this sense, the simple fact that different types of firms in a country are in different stages of the horizontal S-shaped model can be interpreted as clear evidence of a different ID–P link in each specific type of firm. The empirical testing of this issue is relevant because although it is obvious that most firms in today's competitive arena are being forced to compete on an international basis, each type of firm may behave differently insofar as it may differ in terms of resources, ownership and organizational structures or managerial systems (Chiao et al., 2006; Lu & Beamish, 2001; Pangarkar, 2008).

The existing research on the ID–P link has also ignored the time dimension, or has considered short time periods—between 3 and 8 years (e.g., Capar & Kotabe, 2003; Contractor et al., 2003; Fisch, 2012; Gaur & Kumar, 2009; Qian, 2002; Ruigrok, Amann, & Wagner, 2007). In a critical review of existing research, Hennart (2007: 446) posits the need to study how firms expand abroad over long periods, since only in this way is it possible to identify the different stages in a firm's internationalization process. This study covers a longer time period than most prior studies (15 years: 1994–2008). Thus, the large sample of firms and the time period considered, as well as the panel data methodology used, allow

¹ In 2012, EU-27 had over 20 million SMEs, which employed almost 87 million people, and delivered almost 3.4 trillion euros. They accounted for 99.8% of all European enterprises, 66.5% of all European jobs for that year, and delivered 57.6% of the overall gross value added generated by the private, non-financial economy (European Commission, 2013).

examining and depicting in much greater detail how different sized firms evolve from low levels of ID through to higher levels.

2. International diversification and firm performance

2.1. Literature review

Most studies in the field of international business have traditionally assumed that ID is 'good' for P (Contractor, 2007; Contractor et al., 2003). In fact, the first empirical studies conducted in the 1970s were informed by an overly optimistic view of the potential effects of ID on P. Emphasis was placed on the potential advantages or benefits associated with ID. Clearly, in most of these initial studies researchers also recognized that ID involved significant costs. Yet it has been suggested that the incremental costs associated with higher degrees of ID will be outweighed by the incremental benefits linked to it accordingly. These studies assumed that the greater the degree of ID, the higher P will be. This assumption leads to argue a linear (monotonic) and positive link, as illustrated in Fig. 1 (see Model 1).

Most of the empirical studies arguing for a linear and positive ID–P link underscore the following benefits of ID: (a) the opportunity to exploit market imperfections, mainly related to the use of firm-specific assets—especially intangible ones—in new markets abroad (Caves, 1971; Lu & Beamish, 2004; Rugman, 1979); (b) the access to or arbitrage of cheaper inputs—such as capital or labor—or outputs in the different countries in which the firms are operating (Contractor, 2007; Hennart, 1982; Lu & Beamish, 2004; Vernon, 1966); (c) the reinforcement of a firm's market power over its suppliers, distributors and customers (Contractor, 2007; Hymer, 1976; Lu & Beamish, 2004); (d) the ability to enhance a firm's knowledge base and innovation through experiential learning (Contractor et al., 2003; Ghoshal & Bartlett, 1990; Kogut & Zander, 1993; Zahra, Ireland, & Hitt, 2000); (e) the accumulation of international experience (Contractor, 2007; Contractor et al., 2003; Johanson & Vahlne, 1977); (f) the possibility of realizing global economies of scale and scope (Caves, 1996; Hymer, 1976; Lu & Beamish, 2004; Porter, 1986); (g) the diversification of risk from operating in different countries in terms of political instability, fluctuations in exchange rates, or economic cycles (Contractor, Kumar, & Kundu, 2007; Kim, Hwang, & Burgers, 1993); (h) the potential benefits derived from ID on a global scale that avoid market failure, trade barriers, moral hazards and broken contracts (Contractor et al., 2007); or (i) the ability for the global scanning of potential competitors and markets, as well as other potential profit sources (Contractor et al., 2003).

In due course, scholars in the 1980s and 1990s began to adopt a more pessimistic view on the potential effects of ID. In particular, many authors began to consider that international expansion could be subject to risks and failures, whereby they acknowledged certain drawbacks in the ID process (Bausch & Krist, 2007; Brewer, 1981; Ramaswamy, 1992). These scholars suggest that as the number of foreign countries in which a firm operates increases, international expansion can be expected to begin yielding incremental costs that exceed the firm's incremental benefits. This finding has led several authors to suggest a linear (monotonic) and negative relationship between the degree of ID and P, as illustrated in Fig. 1 (see Model 2). Some of the empirical studies conducted over the past forty years also corroborate this argument (e.g., Brewer, 1981; Collins, 1990; Colpan, 2008; Geringer, Tallman, & Olsen, 2000; Ramaswamy, 1992; Rugman, 1976; Siddharthan & Lall, 1982).

All these scholars proposing a linear and negative ID–P relationship emphasize the importance of the following costs related, in one way or another, to ID: (a) the problems of the liability of newness and foreignness (Hymer, 1976; Johanson &

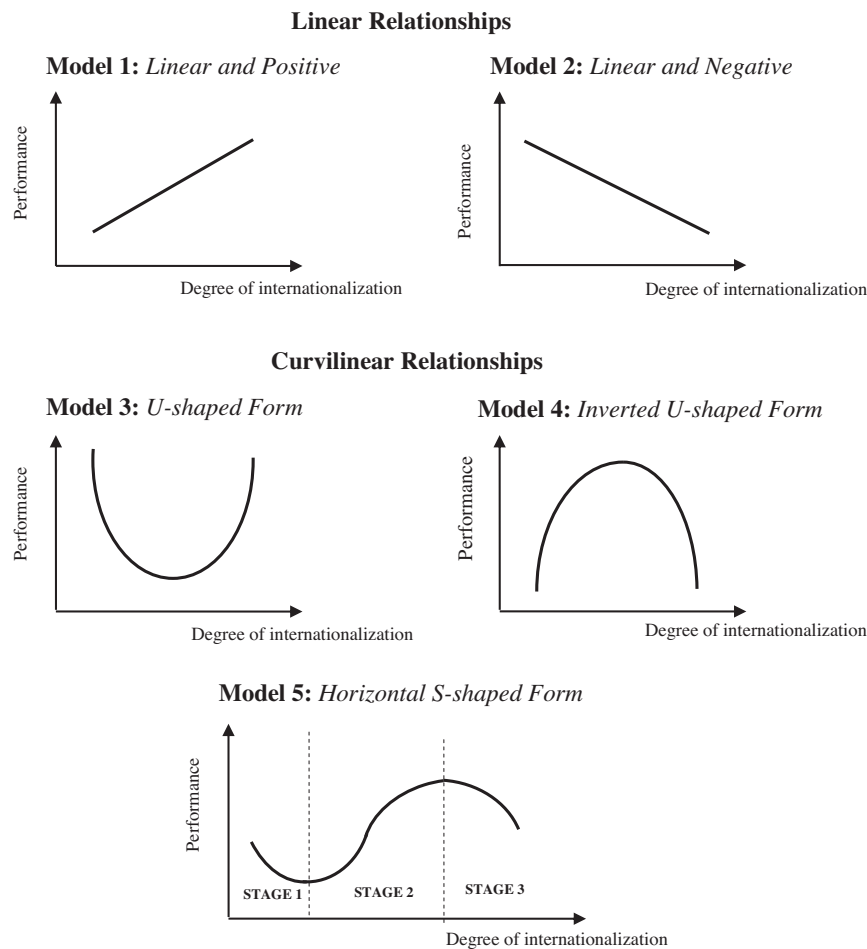


Fig. 1. Main relationships in the study of the international diversification–performance link.

Vahlne, 1977; Lu & Beamish, 2004; Zaheer, 1995); (b) the cost of adapting to the cultures and institutional norms of different countries (Contractor et al., 2007; Ghoshal & Bartlett, 1990); (c) the corporate governance and coordination costs derived from growing environmental diversity (Contractor et al., 2003), the limited cognitive capacity of managers to successfully tackle greater international diversity (Contractor et al., 2007; Grant, 1987), coordination difficulties, information asymmetries, and incentive misalignment between headquarters and cross-border office managers (Denis, Denis, & Yost, 2002; Hitt et al., 1997; Lu & Beamish, 2004); (d) high transport and tariff costs (Contractor et al., 2007); and (e) MNEs do not achieve sufficient reductions in unsystematic risk to compensate for systematic risk (Hennart, 2007).

In marked contrast to the arguments presented above, at the end of the 1980s and mainly in the 1990s, an increasing number of researchers began to empirically identify a non-linear ID–P link. Two alternative curvilinear models have been formulated: the U-shaped model and the inverted U-shaped model (see Models 3 and 4, respectively, in Fig. 1). Each one of these models posits a different link between ID and P. Model 3 suggests an initially negative effect of ID on P before the positive returns of ID become available. This means the incremental costs related to international expansion to some extent outweigh the incremental benefits of ID—negative slope. However, beyond this degree of ID the incremental benefits start to outweigh the incremental costs—positive slope (Contractor, 2007; Contractor et al., 2003: 7). Some empirical studies support this argument (e.g., Capar & Kotabe, 2003; Contractor et al., 2003; Gaur & Kumar, 2009; Kistruck et al., 2013; Lu & Beamish,

2001; Qian, 1997; Ruigrok & Wagner, 2003). Meanwhile, Model 4 predicts that ID has only a positive effect up to a certain level, after which further diversification is detrimental to P. This implies that the incremental benefits from international expansion outweigh the incremental costs up to a threshold—positive slope—beyond which the incremental costs exceed the incremental benefits—negative slope (Contractor, 2007; Contractor et al., 2003: 7). There are several empirical studies confirming this argument (e.g., Driffield et al., 2008; Elango, 2006; Gomes & Ramaswamy, 1999; Hitt et al., 1997).

On the other hand, as already acknowledged by some authors (e.g., Contractor, 2007; Contractor et al., 2007; Lu & Beamish, 2004: 600), most of the aforementioned theoretical and empirical research has been primarily interested in identifying the potential benefits and costs associated with the growing ID of a firm's operations. However, such research has not addressed how these incremental benefits and costs may vary significantly across the different stages integrating such a process. It is now well-known that the international behavior of firms tends to evolve. This important finding has only recently been explicitly addressed in the field of international business studies, when a new shape has been considered for the ID–P relationship, namely, a horizontal S-shaped curve (see Model 5 in Fig. 1).

2.2. Testing the three-stage theory in a country's firms

As noted by Contractor et al. (2003) and Contractor (2007), the three-stage theory of international expansion seeks to reconcile seemingly contradictory findings by suggesting that linear,

U-shaped, and inverted U-shaped results can be considered as subsets of the general three-stage sigmoid curve shown in Fig. 1 (see Model 5). In fact, depending on which part of Model 5 is being examined, one can find linear (positive and/or negative), U-shaped, and inverted U-shaped ID–P relationships between ID and P.

This approach assumes that a firm's evolution abroad can be depicted through three stages. Specifically, it is assumed that the entry of a firm into the international arena is costly up to a first level of combination of domestic and foreign operations (Stage 1); it is then beneficial up to a second level (Stage 2), beyond which performance will stagnate or decline (Stage 3). This implies that firm performance will be negatively related to lower and higher ranges of internationalization (i.e., early and highly internationalized firms), and positively related to longer middle ranges of internationalization (i.e., mid-stage internationalizers).²

To date, all the studies that have confirmed the validity of this theory, and hence the existence of a horizontal-S curve, have been carried out in the most advanced countries. Some studies have analyzed US manufacturing firms (Sung et al., 2008; Thomas & Eden, 2004), US services firms (Contractor et al., 2003; Li, 2005), or used cross-sectional US data (Chang & Wang, 2007; Riahi-Belkaoui, 1998). Other studies, however, have used samples of manufacturing (and/or services) firms in Japan (Lu & Beamish, 2004), EU countries (Fisch, 2012; Vilas-Boas & Suárez-González, 2007), and Switzerland (Ruigrok et al., 2007).

Meanwhile, researchers examining emerging countries question whether the three stages are also present for firms based in these economies (Contractor et al., 2007; Elango, 2006; Gaur & Kumar, 2009; Shen, Wang, & Su, 2011; Thomas, 2006). Specifically, they doubt that any “emerging market firms will currently have ‘over-internationalized’, or reached Stage 3, because the international expansion of emerging market firms is a relatively new phenomenon” (Contractor et al., 2007: 406), since firms in these countries are “late internationalizers” (Gaur & Kumar, 2009: 176). They argue that there will be many firms in such countries that have already overcome the major difficulties associated with ‘early ID’ (i.e., Stage 1), and there will also be many firms in the growth stage (i.e., Stage 2). The following authors find no support for the existence of the three stages³: Thomas (2006) in Mexico and Elango (2006) in 12 emerging markets, using a sample of manufacturing and services firms, Contractor et al. (2007) and Gaur and Kumar (2009) in India for two samples of manufacturing and services firms, and Shen et al. (2011) in China for electronics and pharmaceutical industries.

One of the main arguments put forward to justify the different nature and shape of the ID–P link between firms from emerging and developed countries is the context to which the firms belong. In this sense, it has been widely reported that firms in the latter type of countries usually operate in the relatively safer domestic market, which provides a high level of certainty and scant structural changes when compared to an emerging one. The domestic market for firms in such economies also tends to be larger. Consequently, many firms can operate efficiently in most economic sectors. Moreover, these economies have external capital, labor and product markets that are more efficient, transparent, open and competitive (Lee, Peng, & Lee, 2008). This

² The bases of this theory are well-established in Contractor (2007), Contractor et al. (2003), Lu and Beamish (2004), Riahi-Belkaoui (1998), Ruigrok et al. (2007) and Thomas and Eden (2004). These authors provide a detailed explanation of the main costs and benefits associated to each stage.

³ In fact, the cubic term of the ID measure fails to achieve significance in any of these studies. Obviously, this does not rule out that there may also be some firms with high degrees of ID in these emerging countries (i.e., Stage 3 firms), with some examples being Lenovo, Huawei and Haier in China, América Móvil, Pemex and Cemex in Mexico, Vale, JBS and Petrobras in Brazil, Tata Motors, Tata Steel and Infosys in India, and Petronas in Malaysia. Nevertheless, it is also true that the number of firms with high degrees of ID in these emerging countries has been increasing swiftly in recent years.

means that firms from these advanced economies are more accustomed to facing enormous competitive pressures, since their sectors are highly deregulated, and the rules governing foreign entrants are also relaxed. In fact, local rivalry in these economies tends to be more intense, and customers are also more sophisticated. All this can help these domestic firms to develop the necessary managerial and technological skills and other resources (such as knowledge) to operate in foreign countries (Contractor et al., 2007; Gaur & Kumar, 2009; Thomas, 2006; Wan & Hoskisson, 2003). In light of this reasoning, it seems logical to argue that a developed country is more likely to have a significant number of firms recording higher levels of ID than an emerging one. This explains why the type of relationship that may better depict the potential effect of ID on P in a developed country is the horizontal S-curve, as such countries will also have more firms in Stage 3.⁴ Thus, in a country like Spain, the following is expected:

Hypothesis 1. There will be a horizontal S-shaped relationship between ID and P.

2.3. ID–P relationship in small, medium and large firms

It is, however, important to stress that most past empirical studies supporting/rejecting the existence of a horizontal-S curve in developed/emerging countries have been carried out on samples of large firms. Therefore, based solely on such studies it is difficult to infer the nature of the effect of ID on P in SMEs. As noted above, the evidence on the nature and shape of the ID–P link in SMEs is scant. Some exceptions are the studies by Lu and Beamish (2001), on a sample of 164 Japanese SMEs, Qian (2002), using a sample of 71 emerging US SMEs, Chiao et al. (2006), on a sample of 1419 Taiwanese SMEs, Pangarkar (2008), based on an analysis of 94 survey responses provided by SMEs in Singapore, Fisch (2012), using a subpanel of 1356 German SMEs, and Hsu et al. (2013), using data on 187 Taiwanese firms. Overall, the results of these studies are mixed: Lu and Beamish (2001) find a U-shaped curve, while Qian (2002) and Pangarkar (2008) find a positive and linear effect, Chiao et al. (2006) and Hsu et al. (2013) find an inverted U-shaped curve, and Fisch (2012) an S-shaped curve. Interestingly enough, all the studies including SMEs generally assume that the nature and shape of the ID–P link within the group of SMEs is exactly the same. As noted above, this assumption is challenged here insofar as it is also recognized that there may be significant differences in the ID–P link between small and medium-sized firms within the actual group of SMEs, as well as between these firms and large ones.

It is true to say that SMEs have become increasingly global in recent years (Karagozoglu & Lindell, 1998). International markets can be very attractive for SMEs, as they provide major opportunities for growth and, most importantly, survival in a globalized competitive arena (Qian, 2002). Nonetheless, the empirical evidence in most countries shows that small firms are usually less internationalized than their medium-sized and large counterparts (European Commission, 2010). Consequently, the nature and shape of the ID–P link will be different for small, medium and large firms because each type of firm tends to record significant differences in terms of resource bundles, ownership and organizational structures or management systems (Fisch, 2012; Lu & Beamish, 2001; Pangarkar, 2008) and obviously, all these differences may affect their ability to successfully internationalize.

Large firms usually undertake global prospecting and gather the necessary information for exploiting international opportunities

⁴ For instance, the largest transnational firms by foreign assets or sales as a percentage of the total belong chiefly to the most advanced countries (the USA, the Netherlands, the UK, Japan, Germany, Italy, Belgium, and Switzerland) (UNCTAD, 2013).

(Buckley, 1999). By contrast, the scarcity of information across SMEs may be attributable to the shortage of managerial resources. SMEs in general, and small firms in particular, normally lack managerial talent with international expertise (Fisch, 2012). High levels of ID also increase the requirements for coordination and communication among units, leading to greater problems in terms of managerial resources for many SMEs, but especially for most small firms. In fact, Karagozoglu and Lindell (1998) used a sample of 34 technology-based US SMEs to report that the top two difficulties faced by these firms in internationalization are a lack of information and a shortfall in managerial expertise and competence. Thus, it seems reasonable to assume that managerial constraints may hold SMEs back in the initial and/or mid-stages of ID (Qian, 2002). However, small firms will have a greater tendency to remain in the initial stages of internationalization than their medium-sized counterparts, as they usually tend to have higher managerial constraints.

SMEs are also more 'niche' firms, being more likely to have overseas activities concentrated in a few locations than large ones (Yang & Driffield, 2012), which may also keep them in the early and/or mid-stages of ID. For example, an EU survey on the internationalization of European SMEs shows that cross-border regions are very important for their exports (European Commission, 2010). Moreover, it also highlights that micro enterprises report exports to a much smaller number of regions (or countries) than SMEs. To some extent, this means that the smaller the firm, the higher the likelihood of seeking more familiar markets in order to reduce the costs related to the liability of newness and foreignness, or the need to adapt to the cultures and institutions of different countries (Contractor, 2007; Contractor et al., 2003; European Commission, 2010).

Globalization has enabled large firms to shift production to lower cost locations, through outsourcing relationships or outward foreign direct investment, with the ensuing increase in productivity (Baumol, 2009). What's more, large firms can internationalize at will because they usually have more resources at their disposal that may allow them to exploit high levels of ID more effectively. By contrast, SMEs are characterized by a lack of key resources (e.g., finance, technology or technical expertise, and managerial skills and knowledge) (European Commission, 2010; OECD, 2009). In this sense, it may be argued that since any internationalization initiative usually tends to require a larger proportion of resources in a small firm than in a medium-sized or large one, the failure of such an initiative may have a more negative impact on a small firm, thereby increasing its risk levels (Buckley, 1999; Lu & Beamish, 2001; Pangarkar, 2008). Moreover, many SMEs (and especially small ones) may suffer scale disadvantages, placing them at a cost disadvantage as regards their larger competitors, with an adverse impact on the likelihood of success of their ID initiatives (Pangarkar, 2008; Yip, Biscarri, & Monti, 2000). Other additional barriers to a SME's ID that may compromise their performance (especially in the case of small firms) involve mainly administrative and technical difficulties, exchange rates, documentation and payment issues, and foreign market competition (European Commission, 2010; OECD, 2009).

Finally, large firms might better identify and exploit investment opportunities, with a wider range of alternative strategies and financial instruments at their disposal (Yang & Driffield, 2012). Accordingly, and due to the greater managerial and financial resources available, larger firms should record higher ID, as well as a better P (Thomas & Eden, 2004). Nevertheless, international expansion beyond a certain threshold may have negative consequences for the largest firms, since the growth of coordination, information and governance costs may exceed the benefits of further expansion, given the greater complexity of global operations (Contractor et al., 2003; Gomes & Ramaswamy, 1999). This argument is precisely consistent with the notion that the validity of the horizontal S-shape curve is confirmed only by large firms

that manage to reach Stage 3 of ID in advanced economies.⁵ On the other hand, SMEs recording lower levels of ID would therefore find themselves in early and/or mid-stages of ID. Specifically, as argued above, it is reasonable to expect small firms to record a negative effect of ID on P, since most of them are more likely to be in the earlier stages of internationalization (Stage 1), while medium-sized firms will record a U-shaped link between ID and P, as a significant number of them are highly likely to have reached a mid-stage of ID (Stage 2).⁶ Hence, this reasoning leads to the following three hypotheses:

Hypothesis 2a. Large firms will record a horizontal S-shaped ID–P relationship.

Hypothesis 2b. Medium-sized firms will record a U-shaped ID–P relationship.

Hypothesis 2c. Small firms will record a negative ID–P relationship.

3. Methods

3.1. Data collection and sample

The empirical analysis is based on data from the Survey on Business Strategies (SBS). This is a statistical research instrument drawn up by the SEPI Foundation (an entity dependent on the Spanish Government) that each year surveys a panel of Spanish manufacturing firms. In fact, SBS seeks to delimit and maintain a representative sample of Spanish manufacturing firms over time. Therefore, the inferences drawn from the sample can be deemed valid for the reference population. The final sample size used for the estimation, after conducting a prior analysis of our data set (i.e., identify and/or discard potential outliers and missing data values), is an unbalanced panel of 2748 firms and 17,153 observations (firm \times year). Table 1 summarizes the number of total observations by sector for the whole period.⁷

The final sample meets certain valuable requirements as an appropriate empirical setting for answering the research questions posited in this study. On the one hand, it includes firms of very different sizes (i.e., small, medium and large firms), even though there is a large proportion of SMEs.⁸ Moreover, this sample of firms

⁵ See Chang and Wang (2007), Contractor et al. (2003), Fisch (2012), Li (2005), Lu and Beamish (2004), Riahi-Belkaoui (1998), Ruigrok et al. (2007), Sung et al. (2008), Thomas and Eden (2004) and Vilas-Boas and Suárez-González (2007).

⁶ This does not rule out that, for example, a developed country may also have small or medium-sized firms with high degrees of ID (i.e., in Stages 2 and/or 3, respectively). In any case, given the aforementioned limitations, it is reasonable to argue that this is usually the exception rather than the rule or, alternatively, the number of these highly internationalized small and medium-sized firms is significantly lower than the number of highly internationalized large firms.

⁷ SBS classified the Spanish manufacturing industry into 20 sectors according to the criteria of the National Classification of Economic Activities (CNAE-93). CNAE is the standard used by Spanish statistical agencies when classifying business establishments for the purpose of collecting, analyzing and publishing statistical data related to the Spanish economy. It is similar to the one used in other countries, such as the North American Industry Classification System (NAICS) in the USA, or the Statistical Classification of Economic Activities in the European Community (NACE). In 2009, a review of CNAE-93 was launched, and it was replaced with CNE-2009. The aim of this revision was to adapt the Spanish classification to the new European Statistical Classification of Economic Activities (NACE rev. 2).

⁸ A careful examination of the dataset used in this study shows that Spanish manufacturing firms with between 1 and 49 employees are barely internationalized. Therefore, the group of small firms includes firms with fewer than 250 employees; the group of medium-sized firms refers to those with more than 250 employees and fewer than 500; the group of large firms includes companies with 500 or more employees. This classification is fairly similar to the one Lu and Beamish (2001) and Fisch (2012) used in their studies. Likewise, according to the US International Trade Commission (2010), SMEs are also defined as firms with fewer than 500 employees, whereas large firms are defined as firms with 500 or more employees.

Table 1
Number of observations by sector between 1994 and 2008.

Sectors	Observations
Meat industry	490
Food and tobacco products	1633
Beverages	327
Textiles and apparel	1569
Leather and footwear	501
Timber trade	517
Paper industry	520
Graphic design	895
Chemical industry and pharmaceutical products	1141
Rubber and plastic products	930
Non-metallic minerals products	1224
Ferrous and non-ferrous products	579
Metallic products	1821
Agricultural and industrial machinery	1262
Computers, electronics and optics	257
Machinery and electrical material	1079
Motor vehicles	851
Other transport materials	341
Furniture industry	860
Other manufacturing industry	356
Total	17,153

belongs to a country that during the period of study (1994–2008) is classified as ‘advanced or ‘developed’, albeit still at some distance from the world’s most advanced economies (e.g., the USA, Japan, Germany, the UK, France, and Switzerland), where most of the prior studies testing the validity of the horizontal S-shape curve have so far been conducted.

3.2. Variables

3.2.1. Dependent variable

Similar to many prior studies (e.g., Contractor et al., 2003; Geringer et al., 2000; Grant, 1987; Grant, Jammine, & Thomas, 1988; Ruigrok & Wagner, 2003), the primary firm performance measure chosen was return on assets (ROA), measured as the ratio between gross earnings and total assets. This research uses ROA because economic performance is an essential indicator for judging efficiency in business management. It is precisely the performance of assets that, independently of their financing, generally determines whether or not a company is viable in economic terms. Moreover, by not taking into account the way in which assets have been financed (as does ROE), it can be determined whether a company is unviable due to problems in the pursuit of its economic activity or to an inadequate finance policy.

3.2.2. Independent variables

Exporting has traditionally been considered the most prevalent form of international expansion among large firms and SMEs (Lu & Beamish, 2001; Salomon & Jin, 2010; Salomon & Shaver, 2005). Furthermore, as also suggested by some researchers (e.g., Chiao et al., 2006; Lu & Beamish, 2001; Reuber & Fischer, 1997) this expansion strategy is particularly applicable to the internationalization of SMEs because these firms usually do not have the necessary resources and capabilities (especially, the smaller ones) for adopting other alternative internationalization strategies. Thus, exports are likely to be the dominant vehicle of internationalization for a large proportion of the firms selected for this study. Consistent with the majority of previous studies, ID was operationalized as the ratio of Foreign Sales/Total Sales—*FSTS* (e.g., Chiao et al., 2006; Contractor et al., 2007; Gaur & Kumar, 2009; Grant, 1987; Hsu et al., 2013; Qian, 2002; Ruigrok & Wagner, 2003). Consequently, the use of the *FSTS* ratio will also

facilitate the valid cross-study comparison of our findings and, hence, sustained research progress. Moreover, Rugman and Oh (2011), reporting original data on the different scale and scope metrics of internationalization across the 246 largest US firms over the 2000–2007 period, also argue that the *FSTS* ratio is an appropriate way of measuring the degree of ID. Thus, the *FSTS* ratio can be suitable for both SMEs and large firms. Some studies have also found strong positive correlations with alternative single-variables that consider other aspects of internationalization (e.g., Driffield et al., 2008; Hitt et al., 1997; Hsu et al., 2013; Sambharya, 1995). Certain studies have even shown that multi-variable indexes do not improve upon a single-item measure, such as the *FSTS* ratio (e.g., Ramaswamy, Kroeck, & Renforth, 1996). To test the potential validity of the three-stage model and other potential curvilinear models, this study includes the linear, quadratic and cubic term of *FSTS*.⁹

3.2.3. Control variables

There is an extensive body of literature that has sought to identify the main variables that may affect firm performance. Consistent with Grant et al. (1988), amongst others, this study seeks to control for a set of variables that may have some kind of impact on ROA. *Sales Growth* was measured as the increase in turnover between two consecutive years; *Age* was computed as the difference between the current year and the firm’s year of incorporation. *Size* was measured as the natural logarithm of the firm’s overall headcount. *Advertising Intensity* was measured as the ratio of advertising, publicity and public relations expenses to sales; *R&D Intensity* was measured as the ratio of a firm’s R&D expenditure to total sales; *Productivity* was measured as the ratio of the total value added generated by a firm to the average headcount throughout the year; and *Debt* was measured as the debt-to-equity ratio. The model also controls for *Share Price* by including a dummy variable that takes the value 1 if the firm is listed on the stock market and 0 otherwise. Inclusion has also been made of time (*years*) and industry (*sectors*) dummy variables.

3.3. Empirical model

This study uses multiple regression models for panel data with fixed effects as the empirical tool for the estimation of the potential effect that international diversification (*FSTS*) has on firm performance (ROA). Given the characteristics of the sample, this research estimates the empirical models with panel data specifications, since this technique allows controlling for the unobserved or unmeasured heterogeneity of firms within the sample. In this sense, panel data models minimize the risk of inconsistent estimators resulting from cross-sectional estimation when individual effects exist, which is likely to occur in our research given the number of idiosyncratic factors that could substantially affect a firm’s performance (Baltagi, 2001). On the other hand, the fixed effects model has been chosen as the most appropriate one for empirically estimating the econometric models proposed after considering the results provided by the Breusch-Pagan and Hausman tests. This study also controls for potential problems of autocorrelation, heteroscedasticity and endogeneity in the estimation of our models. The study attempts to solve the latter problem through the one-year lagging of all the explanatory variables (i.e., independent and control variables, except for ‘years’ and ‘sectors’) with respect to the dependent

⁹ See Meyer (2009a, 2009b). This author discusses in some detail the main opportunities and tripwires of empirical studies using different functional forms (e.g., linear, quadratic, cubic, or logarithmic).

Table 2
Number of firms and average headcount, sales and FSTS: 1994–2008.

Year	Number of firms	Headcount	Sales (mill. €)	FSTS
1994	1873	266.6	36.1	0.16
1995	1699	264.4	41.1	0.17
1996	1713	242.2	48.9	0.17
1997	1917	225.1	50.5	0.18
1998	1773	232.4	52.2	0.19
1999	1751	231.7	55.6	0.18
2000	1867	260.9	71.9	0.20
2001	1722	257.7	74.4	0.19
2002	1705	245.4	68.7	0.20
2003	1377	255.8	76.3	0.20
2004	1371	258.6	82.3	0.20
2005	1908	229.5	71.9	0.19
2006	2020	230.2	72.3	0.18
2007	2010	234.9	80.5	0.19
2008	2006	222.4	74.8	0.19

variable (ROA). The econometric specification of the general model to be estimated is as follows:

$$ROA_{it} = \beta_0 + \beta_1 FSTS_{it-1} + \beta_2 FSTS_{it-1}^2 + \beta_3 FSTS_{it-1}^3 + \beta_4 Sales\ Growth_{it-1} + \beta_5 Age_{it-1} + \beta_6 Size_{it-1} + \beta_7 Advertising\ Intensity_{it-1} + \beta_8 R\&D\ Intensity_{it-1} + \beta_9 Productivity_{it-1} + \beta_{10} Debt_{it-1} + \beta_{11} Share\ Price_{it-1} + \beta_{12} Years_{it} + \beta_{13} Sectors_{it} + \epsilon_{ij}$$

4. Results

Table 2 presents the evolution in the number of firms, as well as average headcount, sales and FSTS, from the data available in the SBS between 1994 and 2008. Table 3 reports the descriptive statistics (means, standard deviations, and minimum and maximum values) and the correlations of all the variables used in the study. This table shows that the average level of FSTS for the sample firms is around 17%. This table also reveals that multicollinearity does not appear to be a problem in this study, since most of the explanatory variables have variance inflation factors (VIFs) below the 5.0 criterion advocated by Marquardt and Sneek (1975).¹⁰

Table 4 reports the results of the regression analysis for testing Hypothesis 1 when all the firms in the sample (i.e., small, medium and large firms) are considered in the empirical analysis. Model 1 includes only the effects the control variables have on ROA. The linear term of FSTS is introduced in Model 2. Models 3 and 4 include the quadratic and cubic term of FSTS, respectively. The coefficient of the linear term (FSTS) is negative and significant in Model 2, and the adjusted-R² is higher in Model 2 than in Model 1. In Model 3, the coefficient of the linear term (FSTS) is also negative and highly significant, but the coefficient of the quadratic term (FSTS²) is positive and also highly significant. Moreover, the adjusted-R² in this Model is higher than in Model 2. Finally, in Model 4, as in Model 3, the coefficients of the linear and quadratic terms (FSTS and FSTS²) are also negative and positive and highly significant, and the coefficient of the cubic term (FSTS³) is negative and also highly significant. The adjusted-R² in this model is also higher than in Model 3. Model 4's results are consistent with expectations over the validity of the three-stage theory (or the horizontal-S shaped curve) (see Meyer, 2009a, 2009b) in the specific case of Spanish firms. Strong support is thus found for Hypothesis 1.

¹⁰ The only exceptions of high correlations apply to the linear, quadratic and cubic terms of FSTS, which is to be expected, since any one of those three variables is the transformation of the others (these results are not shown in Table 3).

Interestingly, most of the control variables maintain their signs and/or significance levels in practically all the models. For example, the coefficients of Sales Growth, Age, Size, Advertising intensity, R&D intensity, Productivity and Share Price are positive and significant in all the models (Models 1–4). The F-test also leads to the rejection of the hypothesis that all the coefficients are equal to zero ($p < 0.001$).

In light of these findings, it is possible to infer that there are a significant number of firms in the different stages of the horizontal-S curve in Spain, but it is very difficult to discover which type of firms are in each stage. To find this out, it is necessary to examine the ID–P relationship separately in each type of firm, as shown in Table 5.

Table 5 reports results for large firms—i.e., firms with 500 or more employees (Models 5–8), medium-sized firms—i.e., firms with between 250 and 499 employees (Models 9–12), and small firms—i.e., firms with fewer than 250 employees (Models 13–16), respectively. Models 5, 9 and 13 include only the effects the control variables have on ROA, while the remaining models include, successively, the linear term of FSTS (Models 6, 10 and

14), the quadratic one (Models 7, 11 and 15) and the cubic one (Models 8, 12 and 16). For the specific case of large firms, the linear term is negative and highly significant (Models 6–8), the quadratic term is positive and also highly significant (Models 7 and 8), and the cubic term is negative and also highly significant (Model 8). The adjusted-R² in Model 8 is also slightly higher than in Models 5–7. Thus, the results of Model 8 confirm the validity of the three-stage theory (or the horizontal-S shaped curve) in the specific case of large Spanish firms. Strong support is therefore also found for Hypothesis 2a. As occurred in the whole sample when only large Spanish firms are considered in the empirical analysis, Sales Growth, Age, Size, Advertising intensity, R&D intensity, Productivity and Share Price are also positive and significant.

On the other hand, for the case of medium-sized Spanish firms, the results in Table 5 show that the linear term of FSTS is also negative and highly significant (Models 10–12), while the quadratic term is also positive and highly significant (Models 11–12). Nevertheless, the cubic term is negative but not significant (Model 12). The adjusted-R² in Model 12 is also slightly higher than in Models 10–11. From these results, it can be inferred that in the specific case of medium-sized firms the type of shape that better depicts the relationship between internationalization and performance is the U-shaped form. Thus, strong empirical support is also obtained for Hypothesis 2b. Interestingly, when only medium-sized firms are considered in the empirical analysis, Sales Growth, Age, Size, Advertising intensity, R&D intensity, Productivity and Share Price are also positive and highly significant, as occurs in both the sample of large firms and the full sample.

Finally, the results in Table 5 for small Spanish firms show that only the linear term of FSTS is negative and highly significant in one model (Model 14). In the remaining models, neither the linear nor the quadratic or cubic terms are significant (Models 15 and 16). This could be interpreted as weak evidence to confirm the existence of a linear and negative relationship between internationalization and performance in the specific case of small firms, which means Hypothesis 2c is weakly supported. Additionally, when only small firms are considered in the empirical analysis, Age, Advertising intensity and R&D intensity are no longer significant in most models.

Table 3
Descriptive statistics, VIFs values and correlations.

	Mean	s.d.	Min.	Max.	VIF	1	2	3	4	5	6	7	8	9
1. ROA	0.16	0.41	-5.25	6.56	-									
2. FSTS	0.17	0.23	0	0.98	1.36	-0.09*								
3. Sales growth	0.07	0.26	-0.38	0.35	1.10	0.02*	0.01							
4. Age	25.46	20.17	0	278	1.27	-0.11	0.17*	-0.03*						
5. Size	243	648.70	1	14,400	1.25	-0.14*	0.40*	0.08*	0.37*					
6. Advertising intensity	0.01	0.03	0	0.72	1.36	0.01	-0.01	-0.01	0.21*	0.23*				
7. R&D intensity	0.01	0.00	0	0.68	1.25	-0.03*	0.19*	-0.01	0.09*	0.26*	0.12*			
8. Productivity	38.2	32.87	0	125	1.26	-0.15	0.18*	0.14*	0.28*	0.40*	0.16*	0.10*		
9. Debt	6.23	52.11	0.12	84.66	1.05	0.01	-0.01	0.01	-0.01	-0.02	0.01	0.01	-0.01	
11. Share price	0.02	0.14	0	1	1.08	-0.03	0.11*	0.01	0.16*	0.24*	0.02*	0.04*	0.12*	0.03

Total number of observations = 17,153; Total number of firms = 2748.

* Denotes significant correlations ($p < 0.01$).

Table 4
Multiple regression analysis for panel data with fixed effects: all firms.

Variables	Model 1	Model 2	Model 3	Model 4
Constant	0.254***	0.253***	0.253***	0.253***
Sales growth	0.121***	0.120***	0.121***	0.121***
Age	0.005***	0.006***	0.006***	0.007***
Size	0.092***	0.178***	0.179***	0.179***
Advertising intensity	0.005***	0.005***	0.006***	0.006***
R&D intensity	0.003**	0.002**	0.002**	0.002**
Productivity	0.002*	0.003*	0.003*	0.003*
Debt	-0.001	-0.001	-0.001	-0.001
Share price	0.196**	0.203**	0.204**	0.204**
FSTS		-0.833***	-1.258***	-3.121***
FSTS2			0.967***	1.786***
FSTS3				-0.992***
R2	0.53	0.64	0.66	0.67
Adjusted-R2	0.48	0.60	0.62	0.63
F-test	9.2***	9.9***	10.8***	11.6***
Observations	17,153	17,153	17,153	17,153
Firms	2748	2748	2748	2748

Regressions with robust standard errors. The estimations of the industry and time dummy variables are not shown in this table.

† $p < 0.10$.
* $p < 0.05$.
** $p < 0.01$.
*** $p < 0.001$.

Table 5
Multiple regression analysis for panel data with fixed effects: large, medium and small firms.

Variables	Model 5 (≥500)	Model 6 (≥500)	Model 7 (≥500)	Model 8 (≥500)	Model 9 (250-499)	Model 10 (250-499)	Model 11 (250-499)	Model 12 (250-499)	Model 13 (<250)	Model 14 (<250)	Model 15 (<250)	Model 16 (<250)
Constant	0.430***	0.488***	0.439***	0.440***	0.389***	0.390***	0.391***	0.391***	0.123***	0.125***	0.126***	0.126***
Sales growth	0.448***	0.450***	0.450***	0.451***	0.437***	0.437***	0.437***	0.438***	0.053***	0.054***	0.054***	0.054***
Age	0.015	0.015	0.016	0.016	0.014	0.015	0.015	0.016	0.005	0.004	0.004	0.004
Size	0.108***	0.163***	0.164***	0.164***	0.119***	0.153***	0.153***	0.154***	0.102***	0.103***	0.104***	0.104***
Advert. intensity	0.002***	0.002***	0.001***	0.002***	0.004***	0.003***	0.003***	0.003***	0.006†	0.005†	0.004	0.004
R&D intensity	0.002***	0.002***	0.003***	0.003***	0.003***	0.003***	0.004***	0.004***	0.004	0.003	0.003	0.002
Productivity	0.004**	0.005**	0.005**	0.006**	0.006**	0.005**	0.005**	0.005**	0.004†	0.005†	0.006†	0.006†
Debt	-0.000	-0.001	-0.001	-0.001	-0.000	-0.000	-0.000	-0.000	-0.001	-0.001	-0.001	-0.000
Share Price	0.312***	0.288***	0.289***	0.290***	0.333***	0.298***	0.299***	0.299***	0.030**	0.031**	0.031**	0.031**
FSTS		-0.878***	-1.003***	-1.800***		-0.891***	-1.087***	-1.627***		-1.178***	-1.365	-1.594
FSTS2			0.812**	1.268***			0.825***	1.096**			0.759	1.102
FSTS3				-1.046***				-1.119				-0.132
R2	0.47	0.48	0.49	0.49	0.40	0.43	0.44	0.45	0.70	0.71	0.71	0.72
Adjusted-R2	0.45	0.46	0.46	0.47	0.37	0.40	0.42	0.43	0.68	0.68	0.69	0.70
F-test	8.8***	9.0***	9.1***	9.2***	8.5***	8.8***	8.9***	8.9***	3.9***	4.1***	4.2***	4.2***
Observations	1976	1976	1976	1976	2439	2439	2439	2439	12,738	12,738	12,738	12,738
Firms	351	351	351	351	282	282	282	282	2115	2115	2115	2115

Regressions with robust standard errors. The estimations of the industry and time dummy variables are not shown in this table.

† $p < 0.10$.
* $p < 0.05$.
** $p < 0.01$.
*** $p < 0.001$.

5. Discussion and conclusions

This study represents, to our knowledge, one of the first attempts to jointly and separately examine the specific shape of the ID–P relationship in a panel of small, medium and large firms which is representative of a developed country's industrial fabric. It highlights several important findings. First, strong support is obtained for the three-stage theory, or the horizontal-S curve, in two specific situations: (1) when the full panel of firms (i.e., small, medium and large firms) is considered in the empirical analysis; and (2) when the sample of large firms is considered. Second, sound support is obtained for the argument that the nature and shape of the relationship may vary with firm size, since large firms seem to record a significantly different behavior from SMEs. More importantly, this study also reveals that the nature and shape of the ID–P relationship is quite different for small and medium-sized firms. From this standpoint, it can be concluded that this study provides more fine-grained information than previous research on the true nature of the ID–P link, as the prior focus was on small samples of large firms, samples of SMEs only and, to a lesser extent, large samples with large firms and SMEs, although, in these two latter cases, without distinguishing between small and medium-sized firms. Ultimately, this study provides a more complete and realistic picture of how firms of different sizes may evolve from low to high levels of ID.

Indeed, in recent years the three-stage theory has been considered an appropriate framework to reconcile the contradictory evidence found on the ID–P relationship in most past research, especially in the case of large MNEs. Our findings support the idea that this theory is not only valid to explain the evolution abroad of large MNEs (as some prior studies have demonstrated) but also the evolution abroad of a country's industrial fabric—which usually includes a large proportion of SMEs and a smaller proportion of large firms. However, in light of such findings, it is also clear that it is not easy to see how the ID–P link in each specific type of firm may really be if one only explores the international evolution of all a country's firms together. This is because within such a wide group of firms, it is highly likely that there may be a significant number of firms in each one of the three stages. From this standpoint, the arguments used in this study relating to each separate group of firms might contribute to the further development of the three-stage theory insofar as such arguments may also be helpful to predict at which stage each type of firm is more likely to be located (i.e., which type of ID–P relationship each type of firm may record). Elsewhere, our findings can help to better understand at which stage the incremental benefits associated to internationalization may exceed the firm's incremental costs in view of resource constraints or others to that each type of firm faces.

The strong support garnered for the existence of a horizontal-S curve for the whole sample of firms—which is highly representative of the Spanish industrial fabric—suggests that in Spain between 1994 and 2008 one is highly likely to find a significant number of firms in different stages of ID (i.e., Stages 1, 2 and 3). However, this finding needs to be qualified in some way, since there are remarkable differences across the ID behavior of small, medium and large firms. Accordingly, the findings here are fairly conclusive in showing that most of the Spanish firms in a more advanced stage of ID during the period of study (Stage 3) are primarily large firms, since the horizontal-S curve is found only in this group of firms. Meanwhile, the linear and negative relationship found in the case of small firms suggests that it is highly likely that most of these Spanish firms are still in the initial stage of ID (Stage 1). On the other hand, the U-shaped relationship observed in the case of medium-sized firms suggests that in many of these firms, which are mid-stage internationalizers, the effect of international expansion may be positive in net terms. These

results are, to a certain extent, logical when it is considered that most Spanish SMEs (especially, small ones) have only been forced to compete internationally in recent years, and that they have often faced more resource constraints than their large counterparts.

The findings here regarding the behavior of SMEs are different from those obtained by Chiao et al. (2006), Fisch (2012), Hsu et al. (2013), Lu and Beamish (2001), Pangarkar (2008) and Qian (2002). Given that some of these studies have used samples of firms belonging to countries that have developed economically before Spain (especially firms from the USA, Japan, and Germany), it is fairly logical to argue that a significant number of SMEs might be in more advanced stages of ID. Nevertheless, one needs to be cautious about drawing a comparison with these studies because they do not differentiate between small and medium-sized firms.

When compared with other studies conducted in Spain, this study may also be useful for a better understanding of the link between ID and P in Spanish firms. In this sense, Ramírez-Alesón and Espitia-Escuer (2001) used a sample of large non-financial Spanish firms for a shorter time period (1991–1995) to find a positive effect of ID on P when it was measured using Tobin's *Q*. These findings are interesting because at the beginning of the 1990s Spain had not still attained a status on a par with the most advanced countries. Although this study also needs to exercise caution when comparing the two studies, due to their significant methodological differences, the findings from this prior study might be considered as partial evidence that most large Spanish firms had not yet overcome Stage 2 during that period.

5.1. Implications for managers

International markets may be very attractive competitive arenas, as they provide major opportunities for business growth, and on some occasions they are the only means of survival within a globalized competitive environment. Nevertheless, resources, mainly information, knowledge and technology, ownership and organizational structures, and management systems differ depending on firm size. These differences may have a bearing on each firm's ability to internationalize successfully.

The following practical implications may be derived from our study, especially for managers running manufacturing firms in Spain and other economies with a similar level of development. First, our findings suggest that managers running large firms should follow ID strategies to a moderate degree (Stage 2), while very low or excessively high levels of ID might a priori be equally inadvisable, given that the potential benefits from such levels are more than offset by the costs they usually involve. From this standpoint, it would be very interesting for these managers to identify when their firms are in fact following such moderate levels of international diversification (i.e., when their firms are really in Stage 2, and at the same time know how long this stage may last). To a certain extent, this would also imply knowing precisely when global costs may effectively neutralize global benefits. This study has also calculated the levels of ID where ROA recorded its maximum and minimum values for the full sample of firms (large firms): the minimum and maximum values of ROA were reached when *FSTS* was equal to 0.48 (0.37) and 0.80 (0.75), respectively. By contrast, our findings suggest that managers running SMEs should seek to increase the level of ID, but only to a certain point, if they are looking for a better performance.

Second, this study also suggests there may be a ceiling or ideal level of ID in most large firms deciding to operate in foreign markets. Clearly, this ideal level is obtained when firm performance (ROA) peaks (i.e., when *FSTS* was equal to 0.75). Nevertheless, it seems reasonable to assume that this ideal level may be different for each large firm (depending, for example, on its available resources and management capacity). In any case, it

would be very interesting for managers to know exactly when this ideal level of ID is obtained in their firms in order to maximize profits.

Third, it is important to mention the need SMEs have to invest in building up the key resources required for addressing their internationalization processes with greater chances of success. Such resources include financial, technological or technical expertise, and managerial skills and knowledge. Insofar as this work is based on exporting as the main method of entry, the managers of small firms may find the additional resources they need by collaborating with other partners in their home or host countries.

5.2. Limitations and future avenues of research

This study also has its limitations, which should be addressed in the future. First, the estimation could consider market metrics as a dependent variable, as they are sometimes deemed to be more useful for studies of this nature (Palich, Cardinal, & Miller, 2000: 168); nevertheless, the database used does not contain them. Second, this study has applied one of the most common forms existing research uses to measure ID: *FSTS*. However, given the potential criticism made by some researchers and their concerns about this measure, it might also be advisable to use alternative single-variable measures that consider other aspects of internationalization, or design appropriate multi-item measures (e.g., Fisch, 2012; Ramaswamy et al., 1996; Rugman & Oh, 2011) mainly in order to verify the extent to which our findings are upheld. Unfortunately, this is not possible here with the information available in the dataset. In any case, the use of one or other type of measure of ID should not invalidate the major notion propounded in this study: i.e., firms of different sizes may have different ID–P relationships—or, in other words, they may be at different stages of internationalization—in view of their respective resources or other constraints. Third, the sample used contains only Spanish manufacturing firms, whereby it would be interesting in the future to conduct a study involving Spanish services companies over a similar time period to see whether the findings are also comparable for these firms. This is especially important as services firms may record different internationalization behavior because of their distinctive characteristics (e.g., Chang & Wang, 2007; Contractor et al., 2003; Pla-Barber & Ghauri, 2012).

Finally, this study considers only the potential effect of ID on P. It would also be interesting to examine the interactive effects with other corporate strategies (e.g., product diversification) in developing, emerging and advanced economies. It is true that some attempts have been made to empirically test how the interactive effects of international and product diversification strategies affect firm performance, but existing evidence is still very scant (e.g., Benito-Osorio, Guerras-Martín, & Zúñiga-Vicente, 2012; Chang & Wang, 2007; Hitt et al., 1997; Qian, 2002; Tallman & Li, 1996).

In sum, the research stream addressing the potential relationship between ID and P seems to be voluminous, but it does not seem mature, as defined by an empirically informed consensus. This study seems to confirm the distinction between SMEs and large firms, and what's more, the consideration of a long time period in the analysis may be especially helpful for a more precise understanding of the shape of this relationship. In this sense, our findings suggest that the ID–P relationship may not only be context-dependent, as suggested by some researchers, but also size-dependent. With this in mind, further research efforts are still required to generate reasonably consistent results.

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