Exploring the Determinants of International New Ventures from Spain

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Abstract

This study explores the determinants of international new ventures for the case of SMEs in Madrid, Spain. As in previous research of the US and the UK, the technological level, geographical distance and psychological (cultural) distance from export markets are important factors that explain why firms start as international new ventures. For the firms in Madrid however, international connections are not a relevant factor as in previous studies. This highlights an aspect of the international new venture approach, still uncovered in the literature, which being part of a major multinational economic agreement (the European Union) provokes an important effect on the process of internationalization for the small and medium enterprises. A number of interesting implications are drawn from the results regarding public policies to encourage international development for SMEs.

Key Words: International New Venture, SME, Madrid.

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Exploring the Determinants of International New Ventures: The Case of the SMEs of Madrid

1. Introduction

Studies of the internationalization of new enterprises have two main theoretical models. The first model is the internationalization process theory, initially developed in works by Johanson and Wiedersheim-Paul (1975), Johanson and Vahlne (1977) and Johanson and Mattson (1988); the second one is the international new ventures model, first proposed in Oviatt and McDougall (1994) and McDougall, Shane, and Oviatt (1994).

According to the internationalization process theory (IPT), firms enter new markets on a gradual basis, slowly committing their resources to the development of export activities. The process thus advances in stages as businesses begin by developing locally before expanding to external markets (Johanson & Vahlne, 1990).

The international new ventures (INV) model, on the other hand, asserts that some young small and medium enterprises (SMEs) internationalize rapidly, exporting to distant markets practically from startup. Thus, these firms, instead of following a gradual internationalization process, enter the export trade almost immediately without waiting until they acquire local market experience.

New approaches to explain the internationalization of SMEs have been put forward recently. Acs and Terjesen (2007) for example, propose an intermediate model in which new ventures internationalize through existing networks created by multinational enterprises acting as facilitators of the process. Since knowledge spillovers are local (Alvarez & Molero, 2005) and the various markets have barriers to entry, using multinationals in this way may be the most efficient internationalization method. Another recent attempt to explain rapid internationalization

of smaller firms is the work of Freeman, Hutchings, Lazaris, and Zyngier (2010) who propose that the ability of the INV managers to locate new partners willing to share their technological experience in order to achieve a rapid transfer of new knowledge gives the INV an advantage to compete in the outside market, using existing networks but rapidly creating new ones.

The present work is an investigation that explores the determinants of the INV development in Madrid. The results obtained should be of considerable interest, and they differ in some respects from current results in the existing empirical literature, which is based mainly on SMEs located in the U.S., the UK and New Zealand. Generally speaking, previous studies find that determinant factors for the development of INVs are firm's technological level and its networks of contacts (see, for example, Coviello & Munro, 1997; Crick & Jones, 2000; Crick & Spence, 2005; Madsen & Servais, 1997; Zahra, Ireland, & Hitt, 2000). Our results contradict previous research and conventional wisdom that states that international connections are important for internationalization. We found a nonexistence effect of international connections on firms' rapid internationalization for the Madrid SMEs case. We connect this result with the environment where the Madrid firms operate, which is the existence of a multilateral union of countries, that is to say: when a union is formed among a group of countries, alliances at firm level become less important to have a differential performance in the internationalization arena. Now, every firm can easily become internationally connected with other firms from countries in the union. We can then say that the formation of an alliance, like the European Union, reduces the differential advantage of the firms internationally connected in the first place. Therefore, international connections are less prominent as a determinant characteristic for internationalization. We further concluded that in addition to these factors, two additional components played a role in determining the internationalization process: the geographical distance separating the SME

exporter from its destination markets (Hsien-Jui, Chun-Chung, and Tsun-Jui, 2007) and the psychological distance having to do with differences between markets in culture, language, political systems, level of knowledge of human capital, business practices, etc. (Johanson & Vahlne, 1977). Although they are not under deep study in the international entrepreneurship literature, these phenomena are seen as key variables in a widely cited paper by Oviatt and McDougall (2005).

Our study of the determinants of internationalization is built around the application of a logistic regression model to a sample of 125 SME exporters situated in the Madrid region. The model evaluates the probability that such a firm may be classified as an INV based on four variables usually discussed in the internationalization literature (see for example Andersson, Gabrielsson, & Wictor, 2004; Oviatt & McDougall, 2005). The variables we use are: (1) the technological level of the industry the firm operates in, (2) the level of international connections, (3) the psychological distance, and (4) the geographical distance. The latter two defined in relation to a given export destination.

We think that using the Madrid case is interesting for several reasons. First, Madrid is the main city and the capital of Spain. This city is the business and financial center of the country and most of the big firms operate there. Madrid also shows a powerful entrepreneurial spirit that generates the vast majority of the SMEs of Spain. Second, Madrid is a cosmopolitan city with good conditions for international connections. Finally, Spain is also an interesting case because of its geographical distance and psychological closeness with Latin-American countries, which is an attribute that only posses the former empires that colonized other regions of the world. This aspect can have an interesting effect on the distance variables that this paper studies.

The remainder of this paper is organized as follows. Section 2 briefly reviews the literature related to this study. Section 3 puts forward our hypotheses regarding the factors that determine whether an SME will become an INV. Section 4 discusses the methodology employed while section 5 sets out the results of our analysis. Finally, section 6 presents the conclusions.

2. Review of the literature

As noted in the previous section, there are two main theoretical approaches to the internationalization of SMEs. The first one is called the internationalization process model, also known as the stages model because it represents the process of internationalization as a gradual process (Johanson & Wiedersheim-Paul, 1975; Johanson & Vahlne, 1977, 1990). Under this approach, a firm establishes itself in the domestic market where it obtains knowledge and experience of its business before expanding slowly through the various stages of internationalization. These begin with occasional sales abroad followed by more regular exports through independent agents. Once the firm obtains sufficient knowledge about external markets, then it creates sales subsidiaries in foreign countries and eventually sets up its own production facilities. The process also implies a greater commitment of resources to international operations.

The stages model further holds that the knowledge and experience accumulated during a firm's gradual movement into international trade enables it to be more competitive and reduces risk perception of participating in external markets (Johanson & Vahlne, 1977). This would explain why businesses generally initiate the internationalization process at a later stage of their development and why the process develops incrementally (Autio, Sapienza, & Almeida, 2000).

The defining characteristics of the firm in the stages model are a limited knowledge of external markets, weak international contact networks and high perceived costs due to

psychological and geographical distances from export destination countries. Thus, the firm directs its initial exports towards markets whose psychological and geographical distances from the home country are short. Psychological distance is an intangible element that alters information flows between firms and target markets. Because of the uncertainties associated with these factors, greater psychological distance from a given foreign market will result in higher costs of developing export operations and, therefore higher resource commitments on the part of the exporter.

Since the mid90s, however, various studies appeared asserting that the stages model is not truly representative of the behavior of certain export firms (Autio *et al*., 2000; Bell, 1995; Madsen & Servais, 1997; Oviatt & McDougall, 1994; Schweizer, 2011). They point out that an increasing number of SMEs show rapid growth in their foreign trade operations and commit a significant portion of resources to this activity from the day they were founded with little apparent concern for psychological and geographical distances.

Businesses that internationalize rapidly are identified in the literature under a variety of names. Some of them found in the literature that attempt to explain the phenomenon of rapidly internationalizing firms are: Born Global (Knight & Cavusgil, 1996, 2004; Rennie, 1993), High Technology Start-ups or Global Start-ups (Jolly, Alahuhta, & Jeannet, 1992; Oviatt & McDougall, 1994), Instant Exporters (McAuley, 1999), Instant Internationals (Fillis, 2001; Preece, Miles, & Baetz, 1999) and Micromultinationals (Dimitratos, Johnson, Slow, & Young, 2003). Furthermore, international new ventures are among the most common that is why they are selected for this work. . Oviatt and McDougall (1994) define the notion of an INV as a business that seeks to obtain, from its inception, significant competitive advantages from the use of resources and the sale of products in multiple countries.

Thus, INVs are firms that are internationally oriented from their start taking the risks of foreign operation than gradually internationalizing. . They are distinguished by their efficient use of factors such as the founder-entrepreneur's knowledge (Ming-Tien & Yong-Hui, 2007; Oviatt and McDougall, 2000; Rajshekhar, Javalgi, & Todd, 2011), the network of contacts (Crick & Jones, 2000) and their corporate interconnections with public and private agents (Simoes & Dominguinhos, 2001).

The main focus of INVs is to grow by selling in foreign markets where they have access to networks and international financial markets that contribute with new competitive resources. These firms produce highly specialized technology-intensive goods and supply them to specific market niches in accordance with individual customer requirements.

A diversity of methodological criteria is defined by distinguishing the INVs from the businesses delineated by the stage model. For this purpose we follow Knight and Cavusgil (1996) and Zahra et al. (2000). We consider INVs to be those firms whose foreign trade activity constitutes more than 25% of their sales over a period of less than 6 years since they were founded.

3. Hypotheses

In the study of internationalization we will focus on some key specific factors that are determinant for the development of INV: technological level of the industry, international connections, psychological distance and geographical distance from export markets and the size of firms. According to the literature, these five factors are likely to be the main characteristics that determine the speed of internationalization for the Madrid case.

3.1 Technological level of the industry

The level of technology is considered an important factor in explaining the birth of rapidly internationalizing firms (Eriksson, Johanson, & Majkgård, 1997; Oviatt & McDougall, 1995; Steier, 2011). Harveston, Kedia, Davis, and Van Scotter (2001) and Andersson *et al*. (2004) conclude that a company in a high technology industry has a greater probability of starting with an export orientation. Since the appearance of pioneering works such as Knight and Cavusgil (1996), it is typically held that the majority of young exporters have a technological base. If a firm operates in a high-tech industry, any improvement made to the product or service produced can be rapidly disseminated as a transfer of knowledge to other markets in the form of exports. Also, there are many high-tech firms dedicated to software development or internet based that do not have the production capacity constraint that traditional productive firms have. Therefore, they can export with no limit as the "long tail" firm theory predicts (Andersen, 2006). This leads to the following hypothesis:

Hypothesis 1: *The higher the industrial technological level of the firm, the greater the probability that the firm becomes an INV.*

3.2 International connections and export support

The speed at which a firm internationalizes depends not only on the technological level of the industry it operates in, but also on international connections that facilitate access to new markets. Indeed, the network approach (Johanson & Mattson, 1988) shows that opportunities and the decision to start operations in external markets are determined by the alternatives offered by network connections (Johanson & Vahlne, 2003).

According to Keil, Maula, Schildt and Zahra (2008), international connections help firms become more innovative and increase their access to new knowledge and complementary resources. This is exemplified by exporters that acquire capital from other firms located abroad. The foreign origin of part of a company's equity capital may induce a more rapid internationalization, particularly if the funds involve an explicit or implicit transfer of knowledge that leads to the adoption of superior business practices. In a study done in the Spanish context, Alonso and Donoso (2000) explain that a foreign ownership as part of the equity of a business has a positive impact on its export intensity. We therefore suggest the following hypothesis:

Hypothesis 2: *Foreign ownership in the equity of firm increases the probability of r the firm to become an INV.*

3.3 Geographic distance

The INV model asserts that today many firms do not consider geographical distance in their decisions on where to export. The possession of certain intangible assets such as international connections, knowledge of foreign markets and familiarity with communication technologies enables companies to reduce, in relative terms, the costs associated with larger distances. For an INV, the kilometers involved in selling to countries with different distance gap like Japan,

Argentina or Sweden should make no difference. A look at the export data for the Madrid firms indicates that the greater part of their exports are directed at other European Union members, all of which are in relatively close geographical proximity. In this sense, we believe that the behavior of most young Spanish export companies tends to follow a pattern in which geographical distance is a significant factor. Nevertheless, there are some young exporters that standing out for their ability to sell their products in distant markets. Undoubtedly these firms have a greater export orientation and are more likely to be classifiable as INV. This prompts us to propose the following hypothesis:

Hypothesis 3: *The greater the geographical distance of a firm from its target markets, the greater the probability that the firm becomes an INV.*

3.4 Psychological distance

According to Knight and Cavusgil (2004), INVs possess trained human capital with experience in international business, knowledge of foreign languages and a broad network of contacts that support their business activities. For these firms, psychological distance is not an impediment for the penetration of external markets. An analysis of the main countries where the Madrid firms export to shows once again that their principal customers are located within the European Union, all at short psychological distance, followed by Latin America, also nearby psychologically. But, in our sample we also find young exporters selling in distant markets. These second kind of exporters do not consider cultural differences in their decisions on where to export and they have a very aggressive approach toward international markets. It is highly likely that these firms are classified as INV. Therefore, we posit the following hypothesis:

Hypothesis 4: *The greater the psychological distance of a firm from its target markets, the greater the probability that the firm becomes an INV.*

3.5 Size

As usual in studies of internationalization (Hsien-Jui et al., 2007), we also evaluate the hypothesis that the size of a company influences the speed of its internationalization. According to Jovell (2005), the firm size is one of the variables most commonly included in models of the export processes. The reason is because larger firms can devote more resources to explore international markets, since smaller firms usually suffer from resources constraints. The previous argument however, may not be correct in the new economy, where an increase in production may require only a marginal cost that can be irrelevant for software distribution or internet services. Despite that, we want to incorporate size as a classic determinant of rapid internationalization in our paper as the most classic literature suggests. Thus, we have the following hypothesis to test:

Hypothesis 5: *The greater the size of the firm, the greater the probability the firm becomes an INV.*

4. Data and method

The sample consists of 125 SMEs based in the Madrid region as of 2007 and was built using the databases of Dun and Bradstreet and the Madrid Chamber of Commerce. This sample of 125 firms is considered highly representative since it is a random sample that includes 12% of the Madrid region SMEs with high export activity. Basically, a high export activity means that the firms export more than 20% of total sales. 39 out of the 125 firms were categorized as INVs under our criteria, which is consistent with the criteria used in previous studies (see Knight &

Cavusgil, 1996; Zahra et al., 2000), while the remaining 86 were categorized as gradually

internationalizing firms. All of them were deeply engaged in the export activity with export

volumes of at least 20% of their total sales, however, only a part of the sample was able to

achieve the threshold in less than six years to be considered an INV in our study. The descriptive

statistics of the sample is presented in table 1.

<Insert Table 1 >

The dependent variable of the model represents the probability that a young export firm fits

the INV internationalization pattern. The closer to 1 its value, the greater the probability it will

be classified as an INV. The independent variables of the model are our five potential

determinants previously discussed and usually used in the internationalization literature: (a) the

technological level of the firm's industry, (b) international connections with foreign firms, (c)

firm size, (d) geographical distance, and (e) psychological distance, the latter two variables are

in relation to the firm's target markets. The proxies used for these variables are as follows:

4.1 Technological level

A dummy variable indicates the technological level of a firm's industry. It takes a value of 1

if the firm operates in a high or medium-tech industry and 0 otherwise. The definitions of

technological levels by industry sector are those used by the *Instituto Nacional de Estadística de*

España, which in turn follows the industrial classification criteria of the OECD.

4.2 International Connections

A dummy variable indicates whether any part of a firm's capital originates abroad. It equals 1 if a company outside of Spain has contributed to the firm's capital and 0 if the sources of funds come strictly from Spain. We take the view that foreign investors provide not only financial resources but also experience and connections in markets outside Spain, and we want to know how important this international influence is on the internationalization process of the firm.

4.3 Firm size

A quantitative variable indicates the number of workers employed by a firm. We follow the recommendations of the Dun and Bradstreet database, which uses the classification system of the European Commission. Thus, the variable may take a value of 1, 2, 3, 4, 5 or 6 depending on whether the number of workers falls within the ranges of 1 to 9, 10 to 19, 20 to 49, 50 to 99, 100 to 199 or 200 to 250, respectively.

4.4 Psychological distance

For this variable we calculate an index that expresses the number of customer countries whose psychological distance from a firm is high as a proportion of all the countries where exporting, , and may thus vary between 0 and 1. The closer this index is to 1, the greater the psychological distance of the firm's customer countries. To calculate the proportion, each customer country is initially assigned a value of 0 when is psychologically close and 1 if it is psychologically distant. Appendix A shows the classification of countries as close or distant.

4.5 Geographic distance

This index expresses the number of customer countries whose geographic distance from a firm is high as a proportion of all the countries it exports, and may thus vary between 0 and 1. The closer this indicator is to 1, the greater i the geographic distance of the firm's customer countries. To calculate the proportion, each customer country is initially assigned a value of 0 if it is geographically close and 1 when is geographically distant. Appendix A shows the classification of countries as close or distant. .

4.6 Model specifications

The logit model is based on the logistic distribution function, whose concrete form is as follows:

$$F_i = F\left(X_i, b\right) = \frac{1}{1 + e^{-X_i b}} = \frac{e^{X_i b}}{1 + e^{X_i b}}$$

where X is the independent variable matrix and b is the parameter vector to be estimated. The method of estimation used is that of maximum probability (Davidson and MacKinnon, 1992). The maximum probability function to be maximized is given by

$$L\left(y\left(X, b\right)\right) = \sum_{i=1}^{n} \left(y_i \times \ln F_i + \left(1 - y_i\right) \times \ln\left(1 - F_i\right)\right)$$

where $y_i = X_i b$ is a realization of the dependent dummy variable. In our case, the variable takes the value of 1 if the firm is an INV and 0 if the firm´s internationalization process is gradual.

5. Results of the model

Table 2 shows the results of the logistic regression. .

<Insert Table 2>

As can be seen, the estimate for the technological level of a firm's industry positively affects the probability that an SME exporter becomes an INV. The value of the estimate is 1.2 and is statistically significant at the 95% confidence level. This result is consistent with the findings reported in the existing literature on SME exporters in developed countries as discussed before. Also, this result is consistent with Freeman et al. (2010) in the sense that the technological experience is a key element when it comes to explain the rapid development and transfer of new knowledge to the international markets and therefore the emergence of small global firms.

On the other hand, international connections with foreign firms were not significant at the 90% level, thus differentiating Spanish SMEs from those of other countries under study. A possible explanation for this phenomenon is what we call *The European Union effect* that we introduce here. Our sample shows that many Spanish SMEs export primarily to the European market, and the majority of those with foreign capital are financed with capital from European sources. Therefore, there exist a geographical proximity and likely, some historical relationships between Spain and the EU nations. In this context, the international connections variable is probably not a determinant factor or differentiator in their internationalization processes. Since in recent years the economic borders between EU members slowly become less important, many Spain-based SMEs, which continue to focus their production and sales at home, probably will have foreign capital from other countries of the Union. Indeed, it is not unusual nowadays to find Spanish SMEs with Italian or Portuguese capital whose activity remains largely confined to

their own national market. This gives us an important theoretical insight: "when a union is formed among a group of countries, international connections at the firm level become less important to have a differential performance in the internationalization arena". Now, international contacts and agreements are open to a wider set of firms in the country, therefore, we expect international connections not to be a determinant factor for INV. The opposite probably happens to isolated countries, like China or the US. If a Chinese firm is partially owned by American investors, is highly probable that the firm can be selling to markets other than the Chinese, , starting by the American market and taking advantage of the possibilities that such international connections provide in order to sell to the rest of the world.

Also, the firm size variable is statistically not significant. This refutes Jovell's (2005) notion asserting the importance of including size in internationalization studies. The reason for this result is likely related to the importance of the technological variable in the Spanish case. Given the firms' high level of technology they will tend to produce innovative goods and services rather than high quantities of products with low added-value, and their employee bases will therefore be composed of highly qualified personnel whose numbers are not linearly proportional to export volumes. This result connects with the "long tail" concept developed by Andersen (2006) in which he argues that in the new economy the supply and demand do not need to meet in a physical place in order to exchange goods. Instead, technological industries and on-line business take advantage of the niches to increment sales through the long tail of the demand.

The geographic distance variable was found to have a positive effect that was statistically significant at the 95% confidence level, with an estimate value of 1.8. This indicates that Spanish SMEs which export to geographically distant countries, and thus succeed in overcoming the EU effect, are more likely to become INVs. Such a result implies that if a firm ships its

products to long distances, it will tend to have an export orientation from the start and therefore will not be interested in internationalizing by stages. Instead, it will seek to satisfy international demand; and then, , the majority of its production probably will be exported.

The psychological distance variable follows a pattern similar to geographic distance, but its effect is stronger. The value of the variable estimate is 3.0 and is statistically significant at the 99% confidence level. Psychological distance is therefore the most significant factor determining whether a Spanish SME exporter becomes an INV. Its importance derives from the fact that firms which sell a large part of their production to countries outside the EU and Latin America, the two groups of nations defined psychologically close to Spain, are exporting to societies with which Spain has no cultural, language or historical connections. According to data, the INVs in our sample export mainly to the U.S. and Japan, which are huge and dynamic markets and whose demand is more than what any Spanish SME could supply , accounting for most of their production and sales and therefore increasing the probability of a rapid internationalization and consequently becoming an INV.

5.1 Policy implications

Our results may also have important implications for the design of public policies that would encourage a rapid internationalization of Spanish SMEs. The findings are probably not transferable to large economies such as the U.S. or Japan, where the internationalization process is likely to be governed by different processes. Neither would they all be applicable to less developed countries where the main driving force behind exports is based on commodities and products with low added value. However,   this could be probably relevant for other European

countries which are similar to Spain in size and level of development such as Portugal, Italy, Ireland and Greece.

A particularly interesting outcome of this study is the significance of the technological level of exported products. Therefore, public policies that drive the development of technology in SMEs are particularly important. Subsidies to promote research and development in technological centers of excellence should be available through stronger economic development agency programs to SMEs that have innovative ideas in order to accelerate the development of the technological component of their exports.

As for geographic distance, also a major determinant of the INV status, the ability of public policy to promote exports to faraway markets is more limited and long term. . Stronger business links through agreements on economic cooperation or even free trade agreements with distant countries might be very helpful in this case. Obviously, such policies cannot be enacted quickly and would depend largely on third countries involved in business agreement negotiations.

By contrast, psychological distance can be reduced through short-term policies aimed at increasing cultural interaction between Spain and those countries culturally different. . Such measures as international seminars, grants for study abroad, state-subsidized language courses and joint public-private organizations linking Spain with psychologically distance nations would be very useful to strengthen the access of Spanish firms to their markets.

5.2 Limitations of the results

As any empirical exercise, the results presented above also have certain limitations stemming from the nature of the information used in the study, and generalization for economies significantly different from Spain must be undertaken with caution.

Furthermore, as with any model that employs proxy variables, the choice of a proxy in any given instance may have influence on the results obtained and will therefore be subject to criticism. In the case of the psychological and geographic distance variables, for example, it is relevant to mention that in both instances we used the proportions of all export customer countries whose levels for these factors were high. In addition, alternatives to the degree of foreign ownership in Spanish SME exporters' equity could be used as indicators for the international connections variable, though undoubtedly they would be equally arbitrary. In the final analysis however, we believe that the proxies used in this study were all relatively successful in capturing the fundamental concept behind them, in spite of the valid criticism inherent to any kind of empirical work.

6. Conclusions

We studied the main factors that determine whether is probable that one SME exporter from Spain becomes an INV. The importance of the international trade in the expansion of the economy makes relevant that we deepen our understanding of the principal drivers which enable SMEs to accelerate their export activity and thereby contribute to a more rapid development of their home countries.

When we compare our results with the results of other nations like the US or the UK, they reveal similarities as well as differences. The main similarity is the important role played by the technological level of the Spanish SME's products in transforming the company into an INV. The greater the technological level of the firm's industry, the more likely the firm will achieve the INV status.

Another major similarity is the influence of what the literature calls "distances". As explained in Oviatt and McDougall (2005), both psychological and geographical distances are, according to previous research, a determinant factor in the transformation of a SME exporter into an INV. In our view, this is also the case for Spain, given that the short distances in psychological and geographical terms between the country and the other EU members mean that Spanish SMEs do not need to go further abroad to find a large customer base for their products. However, those who have the initiative to engage in trade with more distant economies such as the U.S. or Japan, have committed the majority of their resources to the export processes, taking greater risks in the hope of achieving higher expected returns obtained in distant markets, and certainly the ones with more probabilities to become an INV.

On the other hand, a major difference from previous literature found in the Spanish case is the fact that financial international connections do not affect the probability that SMEs become an INV. This highlights a gap in the INV theory that must be approached more deeply in future research. For now, we hypothesize that this puzzling disconnection between international connections and INV for the Spanish case is due to the effect that the European Union has on the diminishing marginal value of the international contacts, since belonging to the European Union provides a relevant network to any SME. Moreover, the union effect provides good advantages for trade within the union, making less necessary going too far in the search for new markets, and diminishing, at some extent, the effort to internationalize rapidly and finally become an INV.

In the light of these results, a number of consequences for public policy are under discussion for encouraging export activity among Spanish SMEs both in the short and the long terms. Finally, future research should investigate in more detail what other factors might influence

whether an SME exporter becomes an INV. As an example, government initiatives for promoting exports may be able to positively impact the export capacity of a firm. The results presented here constitute, in our opinion, a useful initial criterion for evaluating the effects of export promotion programs, in particular those aimed at SMEs based in Spain.

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Tables

Table 1. Descriptive statistics of SME sample.

Variable	Technological level	International Connections	No. of workers (range)	Psychological distance	Geographic distance
Media	0.2	0.1	2.7	0.2	0.4
Typical error	0.04	0.03	0.13	0.02	0.03
Standard deviation	0.41	0.31	1.44	0.25	0.34
Variance	0.17	0.09	2.07	0.06	0.12
Kurtosis	0.12	4.98	-0.90	0.32	-1.21
Coefficient of symmetry	1.46	2.66	0.33	0.93	0.07
No. of observations	125	125	125	125	125

Table 2. Results of logistic regression.

Variable	Coefficient	Std. Error	*t*-Statistic	*p*-Value
C	-3.8**	0.92	-4.21	0.00
Technological level	1.2*	0.57	2.03	0.04
International Connections	1.1	0.76	1.48	0.14
No. of workers (range)	0.1	0.20	0.41	0.68
Psychological distance	3.0**	1.03	2.88	0.00
Geographic distance	1.8*	0.89	2.01	0.04
Mean dependent var.	0.2	S.D. dependent var.		0.40
S.E. of regression	0.37	Akaike info criterion		0.90
Sum squared resid	16.04	Schwarz criterion		1.03
Log-likelihood	-50.07	Hannan-Quinn criter.		0.95
Restr. log-likelihood	-62.55	Avg. log-likelihood		-0.40

*Statistically significant at the 95% confidence level.

** Statistically significant at the 99% confidence level.

Appendix A

Classification of psychologically distant countries from Spain

Asia: It is inferred that all Asian countries are psychologically distant.

Africa: All African countries are psychologically distant, with the single exception of Morocco due to its colonial and historical connections with Spain.

The Americas: The countries of North, Central and South America are psychologically close or distant depending on the language spoken in each one. Nations where the principal mother tongue is Spanish or Portuguese are considered close while those with English or French as first language are defined as distant.

Europe: Countries belonging to the 27 members are psychologically close. The remaining countries of Europe are considered psychologically distant.

Oceania: It is inferred that all Asian countries are psychologically distant.

Classification of geographically distant countries from Spain

Western European and Mediterranean African countries are considered geographically close. The rest is considered geographically distant.