

Cooperate Agreements by Spanish Companies: Domestic vs. International

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Abstract

This paper examines whether the behavioural patterns of international partnerships differ from those of domestic partnerships. For this purpose, we use a sample of partnerships established between 1990 and 2002 in which any Spanish company listed on the Spanish continuous market has participated. The number of international partnerships has grown over this period. Spanish companies enter into agreements primarily to expand their activities abroad, although on occasion they serve as a bridge for foreign companies to penetrate the Spanish market. We test a set of exploratory hypotheses regarding the relationship between the types of partnerships and the functional area, the nature of the agreement and the sector of the partners. Our results points to a differential behaviour of international partnerships.

Introduction

The corporate internationalization process is one of the most relevant phenomena in today's economic context. Globalization and growing competition have driven firms to increase their international presence (e.g. [1]). Partnerships have played a leading role in this process due to their multiple advantages (help to overcome the "foreigner disadvantage", risk mitigation, and acceleration of international expansion). The "foreigner disadvantage" is related to the shortage of internal capabilities and resources normally resulting from a lack of knowledge of the culture, consumer habits or commercial practices in the target country. An alliance with local companies provides this information and a channel to take advantage of the network of relations already established by the partner. In fact, as [9] points out, according to the Gradualist Theory, the formation of partnerships makes sense in the early and intermediate phases of the internationalization process because the lack of knowledge of and experience in the new countries is made up for by the contribution of the local partners.

In the same way, cooperation helps to reduce risks because they are shared with the international partner. The risk associated with entrance into a new foreign market decreases. [16] claim that cooperation is a real option the company exercises on purchasing its share from its partner, since it has the choice of investing on its own. It also helps to reduce the international competition and accelerate the expansion process. The agreements also offer the possibility to penetrate markets in which the company had no presence very quickly. The firms can thus become part of international networks that allow them to better compete with firms from other international networks or strategic blocks of the same nature.

Much attention has been paid to research on international cooperation in the last two decades, reflecting the growing importance of international partnerships in business practice (for a recent review of the literature see [1][23]). In the Spanish case, some authors have stressed the important role of cooperation in the internationalization process of Spanish companies in the last few decades. However, there is little specific literature on this phenomenon. We find works, such as [10][19] y [30], that analyze different formulas of international cooperation for different kinds of companies (SMEs, large enterprises, etc.) from a descriptive point of view. [31] and [18] examine how the internationalization of Spanish companies through strategic partnerships affects their market value. However, there are many questions that should be studied in depth in the Spanish business context.

In addition, the Spanish case is especially relevant. The environment has changed considerably in the last 25 years, after Spain's membership in the European Economic Community (EEC) in 1986 and the economic reforms that culminated in the entry of the Spanish currency into the Euro system. Traditionally, the Spanish economy has posted one of the highest growth rates in Europe. These changes have forced Spanish companies to make major adjustments, in which international collaboration has played a crucial role.

In this paper we provide new evidence on the determining factors of the behaviour of international partnerships. We analyze a sample of agreements by Spanish companies listed on the continuous stocks market between 1990 and 2002. We are interested in analyze if Spanish companies have used international cooperation as a specific tool for internationalization, or if the characteristics of this type of cooperation are the same as those of cooperation between domestic companies. We focus on the companies listed on the Spanish continuous market for several reasons. As demonstrated by [3], although the number of companies quoted on the continuous market accounts for a very small percentage of the total number of companies listed in Spain, their number has grown spectacularly in the last few years, from 606 in 1995 to 1869 in 2000.¹ This seems to show a certain trend towards going public in order to drive the company growth process. Moreover, these companies are very important to the Spanish economy. For instance, whereas in 1995 they accounted for 33% of GDP, in 2000 this figure reached 93% in terms of capitalization. In addition, the stock market acts as a corporate control market, which leads us to believe that the strategic decisions of these companies will be clearly oriented to creating value for the shareholder.

The rest of the work is structured as follows. In section 2, we review the literature on international agreements, focusing on the Spanish case. Section 3 describes the database and establishes the different hypotheses to be compared. Section 4 contains the results of the empirical analysis, while section 5 describes the main conclusions.

International Partnerships in Spain

Although the issue of international cooperation is of enormous interest to researchers, there are at present still numerous unanswered questions. Many researchers have been interested in defining the characteristics of international agreements and detecting the possible differences with domestic ones, although they usually focus on concrete formulas of collaboration such as joint ventures, specific sectors (especially technology-intensive sectors) or environments familiar to them (normally USA and Europe).

The situation is similar in Spain, although the study of this phenomenon is still in a very early stage. Most works have used news reported in the press as their source of information, since the databases on agreements have been built with different methodologies and are hard to compare. Many researchers have resorted to the communication media, primarily the specialized press ([20][26][10][11][27][14]and [5]). However, only the agreements of a large and preferentially national scope have been published, which

discriminates against smaller companies, international agreements and pacts that are kept secret or involve “sensitive” aspects such as takeovers. Moreover, this type of analysis usually does not allow for a very in-depth study of internal aspects, which yields results of an eminently descriptive nature. Others have preferred to use alternative sources such as Official Agencies or surveys and, although this gives the studies greater depth in terms of objectives, it does not allow for overall conclusions. In this respect, there is a wide range of bases that have been consulted, generally adapted to the methodology and objectives pursued in the analysis. The object of study and the dimension and concept of the cooperation are also not homogeneous, nor are the time periods considered. Therefore, we choose to emphasize the main results of the most representative studies in order to obtain some patterns to compare our conclusions on domestic and international agreements.

To study the internationalization processes of Spanish firms, [26] analyze a total of 1148 agreements, most of which are international. By sectors, those with the highest number of agreements are energy and water, finance, services, and computers and semiconductors. [27] extend this analysis and find that most of the partnerships are formed with foreign companies and create multiple activity coalitions. More than 65% of them are horizontal and 76.8% develop the activity in a single country. [10] examine 461 international joint ventures created by Spanish companies during the period 1986-1996. They note an upward trend in the creation of these ventures up to 1990. Bilateral ventures with European partners predominate. The purpose of most of them is to undertake multiple activities. They find that the most active sectors are agro-food, services, financial services and other industrial products. [11] analyze the international partnerships formed by the 11 Spanish firms with the largest international presence. They find that nearly 68% of these are partnerships with foreign companies, 27% are global, and the rest are with other Spanish firm to undertake activities abroad.

[19] study 83 export consortiums developed by Spanish companies under the promotion programs of the ICEX from 1983 to 1996. In this case, they are usually agreements of complementariness, where the products of some companies boost the sale of the products of the rest. These alliances are usually formed by small sized companies and are created mainly in fragmented sectors where SMEs predominate. [14] compile 239 cases of strategic partnerships formalized during the period from 1994 to 1998 and in which at least one Spanish partner participated. He find sustained growth in the number of agreements and a larger number of international than national agreements. The most active sectors are finance, telecommunications and energy. The majority are multiple activity agreements, followed by commercial, production and technology ones. Finally, [5] study 611 cases from 1994 to 1996. The international agreements are signed between competitive companies, and the national ones between complementary companies. Most of them are multiple activity agreements, followed by marketing and production. Telecommunications, communication media, services, finance, agro-food and construction are the most active sectors.

In short, based on the evidence we review above, certain regularities can be perceived in the characteristics of the cooperation agreements signed by Spanish companies, including the following: a certain growth trend, especially at the national level. When international cooperation occurs, community partners are preferred. The most active sectors are the high-tech sectors, although at the national level others such as finance and agro-food are prevalent. Normally, the purpose is to undertake multiple activities.

Hypotheses and Data

We define different types of partnerships depending on the nationality of the partners (Spanish or foreign) and the place where the activity is developed (in Spain or abroad), resulting in the specification of four different types of agreements. International cooperation

agreements (ICA) are those in which at least one of the partners has its headquarters outside Spain and they are developed abroad. International domestic cooperation agreements (IDCA) are those in which all the signatory companies are Spanish and they are developed abroad. Domestic international cooperation agreements (DICA) are those in which at least one of the partners has its headquarters outside Spain and its area of action is Spain. Finally, domestic collaboration agreements (DCA) are those in which all the signatory companies are Spanish and they are developed in Spain.

Since our purpose is to determine the particularities of international and domestic agreements signed by listed Spanish companies, we test the differences between the type of agreement and the three mentioned characteristics of the partnerships and the partner companies. To do so, we focus on the most commonly cited characteristics in the previous literature: sectors of the firms and their nationality, the date of signature, purpose, place where they are developed, functional area and nature of the alliance.

In addition, we want to investigate the systematic trends of the data and know if the fact of being an international agreement is independent of the characteristics of the partners and the agreement. For this purpose, we will contrast the independence between the fact of being an international agreement and the following features:

1°. Nationality: in the case of purely international agreements (ICA and DICA), we are interested in knowing if the fact of being an agreement that will be developed in Spain or outside Spain is associated with the fact that partners from only one country or from several countries are taking part. For this, we will consider both the *number of countries of origin of the participants* and *their continent of origin*.

2°. Functional area: marketing, production, finance, research, personal or multiple.

3°. Nature of the agreement: vertical, complementary horizontal or competitive horizontal.

4°. Sector: in addition, we will investigate whether there are differences between sector. In this respect, we analyze separately the partnerships that have been formed by the most relevant sectors, e.g. banking, electricity sector, etc. To this end, we will compare the independence between the fact that a company from these sectors participates and whether or not it is an international agreement.

Database

We built a database containing information on the number and characteristics of agreements signed by companies listed on the Spanish continuous market² from January 1990 to December 2002. The information is selected from the economic press. We have consulted the Baratz (Servicios de Teledocumentación, S.A.) database, which contains news from the leading general information newspapers (*El País*, *El Mundo*, *ABC*, etc.) and from the economic information newspapers (*Expansión*, *Cinco Días*, *Gaceta de los Negocios*, etc.). In addition, we have examined the news published by *El País* and *Cinco Días* in the *El País* newspaper archives (www.elpais.es) and on two Internet financial information sites: www.finanzas.com (Ya.com Internet Factory) and www.invertia.com (Terra Networks, S.A.), which report news from agencies such as EFE and *Europa Press*. Our aim here is to eliminate any bias that the media reporting the news could introduce and complete the information they provide as much as possible.³

[28] claim, this is normally the only feasible way to examine this kind of phenomenon. In any event, this procedure of compiling information is widely used in previous studies.

The database includes all the agreements regardless of their legal form or degree of formalization. These agreements should show a certain mutual dependency between the signatory companies and, therefore, those that involve specific market transactions are

rejected. Moreover, the independent legal identity of the partners should be maintained, which is why mergers or acquisitions are not included. The important thing is the relations that are formed based on the coordination of activities. In this respect, we include concessions of lines of credit or credits syndicates.

The search criteria used to compile the information are based on keywords such as the following: agreement, partnership, strategic partnership, cooperation, collaboration, consortium, joint venture, UTE (*temporary joint venture*), etc., in combination with the names of the companies covered by the analysis. Possible changes in the company names over the study period have been considered. The selected variables have been related to the characteristics normally used in the earlier literature that can identify the nature of the cooperation and on the basis of which we have established the hypotheses to be compared. Table 1 shows these characteristics. We have followed the sector ranking in use on the continuous market during the study period.

Table 1. Collected information about characteristics of the agreements

• Date on which the partnership is established	• Sectors to which the participating companies belong
• Name of the participating companies	• Functional area of the agreement
• Partner nationality	• Nature of the agreement
• Purpose of the partnership	
• Place where the agreement is developed (Spain or abroad)	

The *partner Nationality* shows the country of origin of the partnership firms. There are some companies whose nationality is not easy to determine because they are multinationals with a significant presence in different countries. In these cases, we choose not to assign them to a specific country, but rather to treat them separately. We classify the agreements as international or domestic depending on whether a foreign firm has a share in the partnership.

We also analyze the *place where the agreement is developed*, in order to determine if it is signed to enable the penetration or expansion of Spanish firms abroad or if, on the contrary, the purpose is to develop activities in the national territory. This variable, jointly with the nationality, allow us to classify the partnerships as ICA, DICA, DCA or IDCA.

The *functional area* of the agreement shows whether it is signed to carry out marketing, production, research, financial or personal activities, and also whether the collaboration is developed in several functional areas at the same time (when it is then characterized as multiple). It is important to note that the agreements classified as production are those in which the activity falls within the core business of the partners. For example, agreements of a financial nature signed by banking firms have been considered as production and not as finance. We also consider as production agreements the partnerships formed between companies from high-tech sectors (and not as research agreements).

The relationship between the partner activities is defined by the *Nature of the agreement* variable. This considers whether there is a vertical, competitive horizontal or complementary horizontal relationship between the companies taking part in the partnership.

Using the **Empirical Results** can lead to some problems, e.g. lack of relevant information, misinterpretation, or tendency to focus more on agreements of national companies or those undertaken in their own country, but as some such as the sample includes 9294 agreements collected over the 13-year period analyzed. In some cases, the agreement has been signed by more than one company listed on the Spanish continuous market, which results in duplication. After filtering the database to account for this duplicity, the effective number of agreements compiled is 2465. The number of companies that have signed an agreement during the entire period is 161 of the total of 227 market companies, which, in each year of the survey, is approximately 50% of the listed companies.

This fact confirms the hypothesis of the importance of using cooperation, although it also gives an idea of how this strategy is concentrated in a relatively low number of companies.

Sample Distribution

Table 2 shows the partnerships found in the analyzed sample according to the partner nationality and the place where the agreement is developed. We find that 54.6% are domestic partnerships signed between Spanish companies, while the remaining 45.4% are international partnerships in which at least one foreign company takes part. In this respect, it is worth mentioning that, in the case of listed Spanish companies, there does not seem to be a clear preference for national partners when signing agreements, which points to a growing willingness of these companies to undertake foreign ventures. Moreover, as indicated by [25], larger companies have more of a tendency to formalize agreements with international partners than the rest. The same is true of companies that have a higher percentage of sales on foreign markets, such as those listed on the Continuous Market.

The agreements reached for expanding activities abroad, regardless of the partner nationality, amount to 32.7%. In other words, almost 70% is developed in national territory, although the weight of these partnerships may be overrated because they are agreements reported in the national press. Of the agreements involving a business development outside our borders, the most representative ones are the ICAs with nearly 30%, while the IDCAs represent a very small part of the sample with only 133 partnerships.

The aim of many of the agreements executed – 18.1% – is to help the foreign company enter the national market and, therefore, although they are cases of collaboration with international companies, they do not imply a channel of internationalization for the Spanish companies. In short, the companies on the Spanish continuous market do not have a clear preference for national partners when establishing their partnerships, but they do show a clear tendency to develop them inside our borders. Nevertheless, when they do decide to expand beyond them, they usually do so with the help of foreign companies.

Table 2. Types of partnerships analyzed

	<i>N</i>	<i>%</i>
Domestic cooperation agreements (DCA) <i>Spanish partners - developed in Spain</i>	1213	49.2%
International domestic cooperation agreements (IDCA) <i>Spanish partners – developed abroad</i>	133	5.4%
International cooperation agreements (ICA) <i>Foreign partners – developed abroad</i>	674	27.3%
Domestic international cooperation agreements (DICA) <i>Foreign partners – developed in Spain</i>	445	18.1%
<i>Total</i>	2465	100.0%

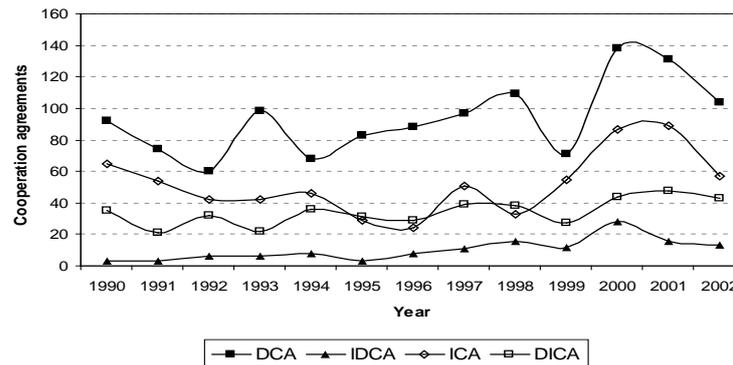
Temporal Evolution

Figure 1 show the time evolution of the four types of partnerships analyzed in the sample. As we can see, in all cases there is a general growth trend with fluctuations during the period and a sharp drop in the last two years of the sample. In this respect, [12], in their work on the Madrid Stock Market valuation of the multinationalization of Spanish enterprise, found that Spanish investors prefer different modes of entry in each period. While the preferred form of entry in the early years was the joint venture, in the later years acquisitions took priority. According to the gradualist theory, it is logical that a company will opt for partnerships in the early phases of the internationalization process and later choose formulas, such as acquisitions, involving a firmer commitment. This fact could explain the downward trend detected in the last two years of our sample.

Worth mentioning is the different pattern of the ICAs and the DICAs. The former show a downward trend up to the middle of the sample and then start to increase as of 1996.

The Madrid Stock Market experienced an important bull cycle from 1996-1999 in which most of the investments are concentrated and, therefore the listed companies are more willing to undertake projects with foreign companies outside our borders. The DICAs, on the contrary, show an erratic behaviour with slight growth at the end of the sample. The expansion cycle of the Spanish economy has encouraged foreign companies to develop projects in our country. This also seems to be confirmed by the fact that, in the intermediate periods between 1995 and 1998, the ICA and IDCA series intersect, which indicates that in those years the number of partnerships whose purpose was the entry of foreign companies into Spain was higher than those whose aim was the expansion of Spanish companies abroad.

Figure 1: Temporal evolution of agreements



Nationality

When we focus exclusively on the international partnerships in which at least one foreign company takes part, we can assess their size in terms of the countries of origin of the foreign company. Panel A of Table 3 shows the number of countries of origin of these companies. In the majority of the cases they come from a single country. This result is consistent with the fact that most of the agreements only involve two participants and one of them is Spanish. In 4.3% of the ICAs and 2.25% of the DICAs, one of the signatory companies is a large multinational. In other words, the multinationals cooperate to a greater extent with national companies to conduct business outside our borders.

Panel B of Table 3 breaks down the international agreements by the continent of origin of the foreign companies. We find that most partnerships are established with European companies, with the percentage exceeding 50% in the case of DICAs. This result shows us that, in most cases, European partners are sought, which is consistent with the results obtained in the previous Spanish literature. In addition, [10] had already detected a predomination of European partners in the joint ventures through which a foreign company accessed the Spanish market. As [30] indicates, the preference for European partners is a specific trait of Spanish companies, since most of the companies from the EU prefer alliances with partners abroad the Union. This reflects the importance of market globalization, [21].

The second continent in number of ICAs is Latin America, followed closely by North America (USA and Canada).⁴ The two continents together account for almost 33% of the international partnerships developed outside Spain. The flows of foreign direct investment to Latin America have grown significantly, driven by liberalization and high growth expectations in these markets, as well as by the consolidation of the single market in Europe. Spanish companies have taken advantage of their cultural links with Latin America to begin an ambitious process of internationalization. The interesting thing about the Spanish experience (for a more thorough analysis, see [15]) is that most of the income from FDI in Latin America is concentrated in a very limited number of companies (e.g. Telefónica de España, Endesa España or Repsol-YPF).

The result is different in the case of the DICAs, as only 2.47% of them are signed with Latin American companies, whereas almost 30% is signed with North American firms. This result seems to indicate that, while Spanish companies use partnerships as a means of expansion in Latin America, few Latin American firms cooperate with Spanish ones to enter our country. The former are suffering stronger competition in their regular environment and, therefore, they seek alliances that allow them to improve their position and obtain access to the know-how and experience of the foreign partners. Latin American companies are new in the global village and they still are not very well known, which is why they seek to consolidate themselves more in their own markets or those that are geographically closer.

Table 3. Foreign companies participation in the international alliances

	ICA		DICA		Total	
Panel A – Number of countries of origin of the companies						
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
1	545	80.86%	386	86.74%	931	83.20%
2	75	11.13%	46	10.34%	121	10.81%
Multinational ^a	29	4.30%	10	2.25%	39	3.49%
More than 2	25	3.71%	3	0.67%	28	2.50%
<i>Total</i>	674	100.0%	445	100.0%	1119	100.0%
Chi-square	14.386*	d.f: 3	p-value:	0.002		
Panel B – Continent of origin of the foreign companies						
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
Europe	291	43.18%	242	54.38%	533	47.63%
Ibero America	111	16.47%	11	2.47%	122	10.90%
North America	109	16.17%	124	27.87%	233	20.82%
Remaining	103	15.28%	33	7.42%	136	12.15%
Mixed ^b	60	8.90%	35	7.87%	95	8.49%
<i>Total</i>	674	100.0%	445	100.0%	1119	100.0%
Chi-square	86.818*	d.f: 4	p-value:	0.000		

^a We include alliances in which at least one company is a multinational and is not possible to assign to a single country.

^b In this case countries from different continents and/or multinational enterprises participate in the agreement.

* * indicate the rejection of the independence hypothesis at any significance level.

In the case of North American companies, on the contrary, partnerships are used more to enter our market than for the Spanish companies to expand in theirs. The reasons may lie in the strong regulation of the North American economy (which makes it difficult for foreign companies to enter) and the considerable international experience that makes it easier for them to enter other markets. The tendency of American companies to enter into agreements with European partners has already been observed in previous studies ([22], [24]).

Functional Area

We are now interested in examining the characteristics related to the types of activities of the agreements, their nature, their form, and the nature of the partners. All this is shown in Table 4. Panel A describes the Functional Area of the partnership. The most frequent one in all cases is Production. This confirms the upward trend of alliances in this area detected in [5].⁵

60.1% of the domestic partnerships developed in Spain undertake production activities. For the rest of cases the percentage is clearly lower – around 45% - and the lowest percentage corresponds to the ICAs. The second most frequent activity is Marketing. In this case, the purely domestic alliances post the lowest proportion with 19.62%. The percentage is higher for the partnerships that involve an international relationship, whether in the development or between the member partners, with around 29% of the agreements. This seems to confirm previous results, in the sense that marketing agreements are usually created when the aim is international expansion, [4]. When a company seeks to expand a market, it

can be expected that it will apply the agreement to the marketing area, whereas a diversification of activities will give rise to agreements in multiple fields, [27].

Table 4. Cooperation agreement main characteristics

	DCA		IDCA		ICA		DICA		Total	
Panel A – Functional Area										
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
Production	729	60.10%	62	46.62%	293	43.47%	203	45.62%	1287	52.21%
Marketing	238	19.62%	39	29.32%	194	28.78%	128	28.76%	599	24.30%
Research	101	8.33%	11	8.27%	52	7.72%	43	9.66%	207	8.40%
Finances	87	7.17%	7	5.26%	60	8.90%	33	7.42%	187	7.59%
Multiple	50	4.12%	14	10.53%	74	10.98%	33	7.42%	171	6.94%
Personal	8	0.66%	0	0.00%	1	0.15%	5	1.12%	14	0.57%
<i>Total</i>	1213	100.0%	133	100.0%	674	100.0%	445	100.0%	2465	100.0%
Chi-square	92.150*d.f:		15	p-value:		0.000				
Panel B – Nature of the agreement										
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
Vertical	573	47.24%	33	24.81%	158	23.44%	184	41.35%	948	38.46%
Competitive Horizontal	310	25.56%	52	39.10%	382	56.68%	122	27.42%	866	35.13%
Complementary Horizontal	330	27.21%	48	36.09%	134	19.88%	139	31.24%	651	26.41%
<i>Total</i>	1213	100.0%	133	100.0%	674	100.0%	445	100.0%	2465	100.0%
Chi-square	219.89*d.f:		6	p-value:		0.000				

* indicate the rejection of the independence hypothesis at any significance level.

The next most frequent activity in the case of agreements developed inside Spain is Research, with 8.33% in the case of DCAs and 9.66% in the case of DICAs. Research is more important in agreements developed inside our borders than abroad. Nevertheless, and in spite of a significant decline in the number of agreements developed in the R&D area that had already been detected previously, but, in our case, the partnerships formed between high-tech companies are included as production and not as research agreements (since they involve the partners' core business). The difficulty of managing technological alliances, and the scant experience of Spanish companies that augments their fear of losing their technological know-how, are some of the reasons given to explain this decline, [5].

For partnerships that are developed outside Spanish territory, the third activity is the one we have designated as multiple, i.e., the agreements are developed in more than one activity, with 10.53% in the case of the IDCAs and 10.98% in the case of the ICAs. Of note is the low percentage of multiple activity agreements between the listed companies in comparison to previous studies. It is true that, on some occasions, the press does not report complete information on the objectives of the partnerships, and for this reason other sources of information such as interviews or questionnaires are more useful. In any event, it is coincidental that international expansion is developed to a greater extent in multiple functional areas. The reason may be that these agreements are more complex.

We find a certain degree of association between the functional area and the type of partnership, where the p-value of the Chi-squared statistic is equal to zero. Also important is the weight of partnerships formed in the area of Finance, which is the fourth most important area in all the cases except for the IDCAs, where it is fifth.

Nature of the Agreement

When we analyze the nature of the agreement (Panel B, Table 4), we find differences in the frequencies of partnerships that depend on whether the agreement is vertical, complementary horizontal or competitive horizontal. Although in all cases the horizontal agreements (of either type) are more frequent, the vertical agreements are the majority in the

case of partnerships with domestic development, with 47.24% for the DCAs and 41.35% for the DICAs. The order of the rest is similar for this type of partnership. The next most frequent category is complementary horizontal agreements, followed by competitive horizontal ones. For partnerships with international development, the most common are competitive horizontal agreements, with this category exceeding 56% in the case of ICAs and ranging around 39% for IDCAs. In the case of ICAs, the next category is the vertical agreement, followed by complementary horizontal agreements which represent only 19.88% of the total.

Our results coincide with the previous literature since the international agreements are mainly between competing companies to jointly undertake a unique activity, whereas vertical agreements are more common in the domestic case. This seems to confirm that Spanish companies are afraid to cooperate with others with which they compete in the Spanish market, whereas the perception of this risk is not as great in international markets. National agreements are primarily motivated by the complementariness between the companies that develop them, since strengthening market positions requires partnerships with companies situated in the anterior and posterior stages of the value chain. Competitive horizontal partnerships favour learning and getting information and have significant effects on restructuring of the competition, [6], which could be helpful in the international environment but may be perceived as more dangerous in the company's national environment. The possibility of appropriating and internalizing the resources provided by another partner becomes a particularly critical issue when the cooperation is between competing companies, due to the impact this could have in the future from a competitive point of view: loss of specific know-how, increased dependency of the members, etc. As a result, we reject the independence of the nature of the partnership and the type in question (p-value=0).

Sector

In this case, we have selected only the 5 most active sectors in terms of execution of agreements. Table 5 shows the number of partnerships in which at least one of the firms belongs to the corresponding sector. We also analyze how the proportion of agreements signed per sector is distributed among the different types of partnerships. It is true that, since we are dealing with listed companies, there is an overrepresentation of those sectors in which the companies are larger (and therefore more concentrated) versus the more atomized sectors whose companies have less of a presence on the Spanish continuous market.

Table 5. Cooperative agreements in the main sectors

Sector:	DCA		IDCA		ICA		DICA		Total	
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i> ^a	% ^a
Banking	438	55.65%	40	5.08%	174	22.11%	135	17.15%	787	31.93%
Construction	293	69.76%	29	6.90%	55	13.10%	43	10.24%	420	17.04%
Electricity	193	51.88%	24	6.45%	103	27.69%	52	13.98%	372	15.09%
Oil, gas and other sources	117	40.77%	15	5.23%	101	35.19%	54	18.82%	287	11.64%
Telecommunications	110	41.51%	22	8.30%	77	29.06%	56	21.13%	265	10.75%
<i>Total</i>	1213	49.21%	133	5.40%	674	27.34%	445	18.05%	2465	100%
Chi-square:										
Banking	22.07*	d.f:	3	p-value:0.000						
Construction	100.3*	d.f:	3	p-value:0.000						
Electricity	5.59	d.f:	3	p-value:0.133						
Oil, gas and other sources	12.14	d.f:	3	p-value:0.007						
Telecommunications	10.10	d.f:	3	p-value:0.018						

^a We consider alliances in which at least one firm (the Spanish or the foreigner) belong to the corresponding sector. For this reason, the total sum of the values in this column is not the total of alliances. The percentages are computed from the total of alliances, and hence their sum is not 100%.

* indicate the rejection of the independence hypothesis at any significance level lower than 2%.

As seen in the last two columns of Table 5, the banking sector clearly predominates. A bank participates in 31.93% of the total. The second is construction with 17.04%, closely followed by electricity with 15.09%. These are followed by Oil, gas and other sources and by Telecommunications, with 11.64% and 10.75%, respectively. For all the sectors, the most frequent type of partnership is domestic (DCA), followed by international agreements (ICA).

The financial, energy and construction sectors were found to be quite active in previous studies [27],[5]. The literature normally reveals that sectors with a high degree of technological intensity (telecommunications, energy, etc.) or with major changes in regulation and intensity of the competition (finance, telecommunications, distribution, etc.) are usually the most representative. Those studies that do not analyze press information [1, 2] find a high share of cooperation in mature sectors without a strong technological component.

If we analyze the partnerships in which a bank takes part, we find that more than half are DCAs, with 55.65%. The Spanish banking sector has traditionally had large groups formed by different types of companies and based on the creation of banking consortiums with a major presence on the domestic market. Banks seem to prefer cooperation with foreign companies to penetrate international markets, with 22.11% of ICA versus 5.08% of IDCA. The remaining 17.5% of the agreements in which at least one bank participates enables them to collaborate with foreign companies to develop projects in Spain. [14] points out that financial globalization has forced financial institutions to form alliances to acquire a competitive size and provide their services to firms that are international players.

Companies from the construction sector seem to focus on domestic cooperation, as 69.76% of the partnerships are type DCA. The next most frequent type is ICA but lagging far behind with 13.1%. The least frequent in this case are the IDCAs, with 6.9% of the total number of agreements in which at least one company from the Construction sector participates. We agree [5] in their perception that the press has paid considerable attention to tender agreements and public works construction, which could explain the high number of agreements of this sector in Spain. Nevertheless, the scant presence of international agreements of companies from this sector abroad could be explained by the high concentration, large size and heavy investments required to bid on tenders and concessions that act as an entrance barrier to foreign capital.

On the other hand, the firms from the electricity sector show a lower proportion of DCAs (51.88%) than the former, and a higher percentage of ICAs (27.69%). Just as in the case of banking and construction, international domestic cooperation is the least frequent type with 6.45%. The second energy-related sector of Oil, gas, and other sources is more active in cooperation at the international level than at the national one. For instance, only 40.77% are DCAs, although this continues to be the most frequent category. This sector forms more international partnerships, with 35.19% of ICAs and 18.82% of DICAs. Due to the global structure of this market, the firms need to develop more agreements with foreign companies at both the national and international level.

Finally, for alliances formed by Telecommunications firms, the majority of the agreements are international too with 29.06% of ICAs and 21.13% of IDCAs. This is the sector that collaborates most with foreign companies to develop projects in Spain. With the end of state regulation of telecommunications, the presence and influence of foreign companies on national economies has increased. This phenomena has affected international operators and major suppliers alike, as they have had to adapt to competition in a worldwide market with an oligopolistic structure and develop forms of cooperation in an uncertain environment characterized by technological innovation, [17].

When we test the independence between the sector and the type of agreement, the hypothesis of the non-existence of a relationship between the type of agreement and the sector

is rejected in all cases, except for the Electricity sector. For this case we cannot reject the absence of association between the type of agreement and the sector.

Conclusions

This article examines whether international partnerships have a different pattern of behaviour than domestic partnerships by analysing a sample of agreements between 1990 and 2002 in which a Spanish company listed on the Spanish continuous market has participated.

We find a balance between national and foreign partners but the number of international partnerships has grown over the sample period with a sharp drop in the last two years. This fact could demonstrate an international maturing process that motivates more committed formulas such as acquisitions. Spanish companies cooperate primarily to expand their activities abroad, although on occasions they serve as a bridge for foreign companies to penetrate the Spanish market.

In international alliances, we find Spanish firms generally seek partners from a single country, mainly European or American according to the results of previous research. Spanish companies form partnerships with Latin American ones to expand their activities in Latin America. In the case of North American companies, they sign more agreements to penetrate the Spanish market than to help Spanish companies enter their markets.

There is a tendency to cooperate for production purposes; although they account for more than 50% of the DCAs, in the rest of the cases the percentage is lower. In international agreements, the partnerships for marketing purposes have a very significant weight. This confirms the theory that marketing agreements are used when the aim is international expansion, while production agreements are used to a greater extent in the national markets. Similarly, international expansion is developed to a greater extent in multiple functional areas because of the greater complexity of this type of collaboration, although there is a significantly diminished presence for the companies in our sample.

The nature of alliances is usually horizontal, although the proportion of each type depends on whether they are domestic or international partnerships. We also find a tendency for competing companies to enter into agreements at the international level and vertical agreements at the national level. The loss of specific know-how, increased dependence between the partners, and the possibility of creating a strong competitor in the future seem to have an important weight in domestic cooperation. However, firms seem to place a greater value on learning and obtainment of information provided by competitors when entering into international agreements.

Additionally, we find the most active sector is banking, followed by construction, electricity, oil and other sources, and telecommunications. These sectors, which are very representative in previous studies, are characterized by being technologically intense and by major changes in regulation and competition. Nevertheless, the sectors with larger companies (with a presence on equity markets) are represented to a greater extent than the more atomized sectors. All of them tend to form domestic partnerships, followed by ICAs.

Although the fact that our study focuses on listed companies entails some limitations, our results seem to be representative of the behaviour of Spanish companies as a whole, as they confirm the general trends detected by previous studies, albeit with certain particularities. Moreover, their nature also enables us to ascertain the market appraisal of the different types of agreements in terms of the analyzed variables; this information is especially important when making decisions on this issue. Finally, although this paper has a fundamentally exploratory nature, it would be interesting to conduct a more in-depth study of the importance of these relationships, as our results seem to indicate that the pattern of behaviour of international partnerships differs from that of domestic alliances. Therefore, to study the

factors that increase the probability that firms choose international partnership instead of domestic one is a natural extension of this work.

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Footnotes

- ¹ Care must be taken with this figure, since it includes the SIMCAV (equity investment firms) and other companies specialized in fund management and investment portfolios.
- ² We have only considered the partnerships in which one of the firms was listed on the stock market at that time.
- ³ The press data can cause problems related to incomplete or misinterpreted information and they are usually biased towards large enterprise.
- ⁴ More than 90% of the strategic partnerships with North America have been signed with U.S. companies.
- ⁵ However, we must stress the particularities we have introduced into our study in relation to this criterion.

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