May, 1998

On The Determinants of Export Internalization: An Empirical Comparison Between Catalan and Spanish (Non-Catalan) Exporting Firms

Alex Rialp i Criado

Document de treball nº 98/4

A Working Paper in the *documents de treball d'economia de l'empresa* series is intended as a mean whereby a faculty researcher's thoughts and findings may be communicated to interested readers for their comments. Nevertheless, the ideas put forwards are responsibility of the author. Accordingly a Working Paper should not be quoted nor its data referred to without the written consent of the author. Please, direct your comments and suggestions to the author.

ON THE DETERMINANTS OF EXPORT INTERNALIZATION: AN EMPIRICAL COMPARISON BETWEEN CATALAN AND SPANISH (NON-CATALAN) EXPORTING FIRMS

Dr. Alex Rialp i Criado*

ABSTRACT

The internalizing decision of export operations inside the firm, with respect to their maintenance in the domain of the market through several mechanisms of external distribution, is examined with data coming from a general sample made up of 428 Catalan and 1,836 Spanish (non-Catalan) exporters. An interpretative framework for explaining the channel integration decision is designed and tested by means of a logistic regression model. Results seem to confirm, first, a higher relative proportion of firms which externalize their export activities in the market -versus internalize- in both collectives and, more interestingly, a higher degree of internalization among Catalan industrial exporters versus non-Catalan ones. Secondly, some hypotheses related with the selection of the optimal level of channel integration in the international context are also confirmed, though some differences emerge between both groups. Finally, several conclusions are derived from the analysis.

INTRODUCTION

The selection among foreign modes of entry is one of the most complex decisions to make along the internationalization process of any firm. In the early stages of this process, particularly during the phase of export development, it is possible to internalize this activity inside the firm, as a primary mode -perhaps the one taking the lowest level of risk- of foreign direct investment[1]. Thus, the selection of the distribution channel abroad, and especially its optimal level of integration, is considered to be one of the most difficult decisions that any exporter must face as regards its potencial impact on success (Reid, 1987; Root, 1994).

The outstanding question is, then, to determine if it would be convenient to commercialize those products through a propietary distribution channel abroad in the form of a propietary sales force and/or a commercial subsidiary (integration), this is, a mechanism which would imply a higher level of control and client proximity, but also a greater responsibility, commitment and risk acceptance, or, on the other hand, if it would be more efficient to promote intermediation of local agents and/or independent distributors (not integration)[2]. So, what level of forward integration should firms show in international markets, and why? As an

* Dpt. d'Economia de l'Empresa.
Edifici B.
Universitat Autònoma de Barcelona.
08193 Bellaterra (Barcelona), SPAIN.
tel: +34-93-581.22.68
fax: +34-93-581.25.55
e-mail: Alex.Rialp@uab.es

internationalization mechanism, vertical integration in export markets -*export internalization*- constitutes an important strategic decision since it means adopting a higher level of international commitment throughout this process and contributes in making the firm´s competitive advantages more explicit as its progressive conversion in a multinational firm takes place (Campa y Guillén, 1995).

In broad terms, forward integration decisions into foreign countries has been a question examined, basically, among multinationals, and mostly dominated by manufacturers whose large resources allowed them to invest abroad. However, more recently a deeper application of these mechanisms among small and medium-sized firms has also been suggested (Reid, 1987; Osborne, 1996). In fact, it has been progressively detected how more and more small and medium exporters also try to internalize their commercial networks abroad to some degree. In this sense, the question about the level of integration of these international channels of distribution seems to claim importance among these firms, it being especially interesting to study which factors could determine this.

Moreover, a great deal of empirical literature in this field has preferably focused on managing the, very often, conflictive relationships established between manufacturers and their distributors (Ford and Rosson, 1982; Rosson and Ford, 1982; Bilkey, 1985), instead of investigating the structural arrangement of the channel itself and, more concretely, the reason/s why it adopts one form or another. Only recently, have some models based upon the selection of channels abroad been raised which take into account the nature of the integration itself from alternative considerations related both to production and transaction costs.

In line with these last efforts, which try to investigate the kind of factors that apparently affect the organizational arrangement (basically integrated versus independent) chosen by firms in foreign markets, is where this study is located. It is intended to shape and test a conceptual framework which, in a more proper way, deals with the real determinants of the export internalization degree exhibited by our industrial firms, both Catalan and from the rest of Spain. This way of promoting their internationalization would make them become truly multinationals, something which seems to have a real interest in the case of economies -like the Spanish one- where they are not especially abundant.

So, the aim of this paper is to identify the main explicative reasons for our firms´ transition and development towards increasing levels of international commitment, represented here by the concept of *export internalization*. In this sense, once some theoretical arguments about the impact of production and transaction costs upon forward integration abroad have been examined, the main empirical literature in this topic is reviewed. This makes the development of testable hypotheses to conduct research easier, also describing the methodology and the list of operational variables which allow us to test them according to our available data. Then, results are presented and discussed in a comparative way, and different conclusions are finally formulated.

1. INTEGRATING DISTRIBUTION IN THE INTERNATIONAL CONTEXT

1.1. Theoretical approaches in the literature

There are, in broad terms, two general approaches to explain the integrating decision of distribution channels abroad: 1. the stages of development hypothesis, represented basically by the Internationalization Process Model or U-Model (Johanson and Wiedersheim-Paul, 1975; Johanson and Vahlne, 1977, 1990), and 2. The Transaction Cost Analysis (TCA), developed mainly by Williamson (1975, 1979, 1985), which has also seen its application extended to the context of the firm´s internationalization and, more particularly, to the channel internalization decision in international markets.

The first approach, known as the U-Model, postulates a series of gradual changes on the organizational structure chosen by the firm at the international level, as the most outstanding feature of its higher involvement in export activities, suggesting that firms exhibit a natural tendency to integrate vertically in a predetermined sequence: the use, at the beginning, of independent sales agents abroad allows the following establishment of commercial subsidiaries which grant greater control and a more direct flow of information between the firm and its target market, facilitating the next and last step of the process, based upon the displacement of production capabilities towards export market/s.

Although this model has been broadly considered in the empirical literature upon export, it seems to show some limitations (Reid, 1983, 1984; Osborne, 1996). First, this model suggests that every firm goes through each stage previously defined without truly determining the reasons which explain transitions from one to another. Moreover, many manufacturers do not integrate forward domestically, it being even less likely that they want to do it in the international context. Finally, firms can also combine different mechanisms for exporting, without necessarily sticking to the only four steps suggested in the U-Model which, by the way, do not take into account this possible channel mix in export markets, not even for only one of them.

This is the reason why a different approach is also focus upon: Transaction Cost Analysis (TCA), considered as an alternative theory based upon contingency (Reid, 1984). It seems to be well accepted that the most recent developments in this conceptual framework offer new ways to analyze some postulates referring to the scope of vertical integration in export markets by the firm and, more generally, with transactions in foreign trade. Some predictions of this theory, about the kind of circumstances under which it would be expected that a firm integrated those transactions, are especially noteworthy.

It can be asked, then, how far should a firm try to perform internally all of the functions linked with commercialization of its products -both domestically or internationally- instead of confiding them to external intermediaries? The traditional answer to this question has been based upon production costs: firms are supposed to aspire to a greater control of their activities and, thus, they often show a stronger preference for integrating those functions. In any case, these arrangements will not be possible if fixed costs cannot be distributed by a bigger volume of business. So, only if this volume increases will firms specialize in performing commercial functions, also receiving the benefits associated to scale economies. In this way, in terms of efficiency, production costs are important, although, as also pointed out by Klein et al. (1990, p. 197), "not enough by themselves to explain for the variations observed in channel integration"[3].

ACT's perspective states, as a primary assumption, that firms try to minimize the sum of production and transaction costs. In this sense, they will internalize those activities which can be performed at a lower cost, externalizing those in which other agents have cost advantages in the market domain. It is assumed, however, that participants in the market are exposed to different factors such as bounded rationality and/or asymmetrical information. This makes agents behave, sometimes, opportunistically, trying to cheat the other part/s to their own benefit. Particularly, under uncertain conditions, with bounded rationality and/or "market failures" in the transaction of some assets, the costs associated with this governance structure -the market- could be so high that firms prefer to internalize, accepting an increase in their internal costs for conducting transactions internally, instead of falling back on the market looking for a reduction in transaction costs (Williamson, 1985). So then, as costs associated with market contracting rise, incentives for internalizing transactions will be also stronger. Nevertheless, a limit in this integration can be found, due to the fact that organizations are not perfect institutions after all, and they also show internalization costs.

While production costs can be established quite easily, transaction costs are quite difficult to measure directly, as they represent potential consequences of alternative decisions (Klein et al., 1990). So, attention is set upon the existence of several traits in transactions -concretely, the level of specialized assets required by the exchange, the presence of uncertainty around this transaction and/or the frequency with which it occurs- as possible factors creating inefficiency linked to market intermediation as a governance mechanism[4]. In fact, outstanding transaction costs include (Salas, 1991):

1. *ex-ante costs*: due to some information problems between buyers and sellers when establishing contact, the meeting of preferences and reciprocal demands and agreement upon prices.

2. *ex-post costs*: resulting from oportunistic behavior on behalf of one part or another, which encourages performance of some activities in order to reinforce the clauses reflected in market contracts.

In this way, TCA postulates that firms will tend to internalize only if these ex-ante and ex-post costs of using the market for governing transactions are so important that the alternative of internalization is less costly. Certain characteristics linked to the product and/or the market (asset specificity, external uncertainty, frequence of transaction, etc.) can be associated, then, with higher transaction costs and, also, with a higher probability to internalize these operations inside the firm (Anderson, 1985).

In terms of the selection between an integrated channel to make distribution abroad or an independent one which also covers a foreign market, it is usually considered from this approach that an *a priori* benefit exists contracting independent intermediaries in a competitive market, as the entrant (manufacturer) can surely substitute those distributors whose performance is not satisfactory (Anderson and Couhglan, 1987; Osborne, 1996). In this sense, a believable threat of substitution is enough, by itself, to discipline an independent distribution system. Only when this skill was reduced somehow could the transaction costs of performing in the market by means of independent channels increase so much, that an intrinsic interest for integrating this activity inside the firm would emerge.

Thus, it seems better, by default, to choose a local and independent channel (agent and/or distributor), since it is more likely that it knows how best to sell the product efficiently. Using such an independent channel, a distributor acquires certain assets (manufacturer´s brand and product knowledge, relationships with suppliers and buyers, market knowledge and competitors´information) which imply transaction costs for the manufacturer. In a sufficiently competitive market, where many distributors with a similar level of this knowledge exist, these transaction costs are not very high, so the manufacturer can easily identify new distributors to replace those who show a poorer performance. On the other hand, if there are few distributors in a foreign market, these cannot be replaced so easily and it would make transaction costs increase. In this situation, it is highly probable that the firm decides to integrate in order to motivate and offer closer control over the distributor/s.

1.2. A review of empirical literature

Due to the development of TCA, an increasing number of studies adopting this perspective has been emerging recently with the aim of establishing and contrasting some models about channel integration although not many of them focus directly on international markets. Moreover, existing empirical studies on the level of internalization of commercial activities show some limitations.

First, most research analyzes forward integration in domestic context rather than in foreign markets (Anderson, 1985; John and Weitz, 1988). In the second place, a broad variety of studies show evidence from large companies located in highly developed countries -the USA and Canada, basically- which, with exceptions as, for instance, Klein et al. (1990), belong to a unique industry and/or a very narrow product line with strong technological content (Anderson, 1985; Coughlan, 1985; Anderson and Coughlan, 1987; Agarwal y Ramaswami, 1992; Erramilli and Rao, 1993). Likewise, several efforts made up until now only formulate and contrast empirically some aspects very closely related to TCA (Reid, 1983; Anderson, 1985; Coughlan, 1985; Anderson and Gatignon, 1986; Anderson and Coughlan, 1987; John and Weitz, 1988; Klein et al., 1990; Erramilli and Rao, 1993).

Then, although much literature contributes evidence in favor of transaction cost approach, only a few studies seem to offer a broader explanation in terms of the degree of channel integration in international markets. In fact, the majority of empirical studies in this field only consider a set of economic factors which seem to affect market transactions but do not take into account several other characteristics about the product, the business itself or the cultural and political aspects of domestic and target markets (Osborne, 1996). Apart from the regularly positive relationship found between asset specificity in a transaction and the level observed of channel integration, many results tend to be conflictive. This is particularly true when the impact offered by the degree of external uncertainty and/or the relative importance of production costs versus transaction costs are analyzed (Klein et al., 1990).

Anyway, some contributions in the literature are really stimulating. In this sense, we can point out, for their integrative vocation, those empirical studies developed by Anderson and Coughlan (1987), Klein et al. (1990), Campa and Guillén (1995), Osborne (1996) or Aulakh and Kotabe (1997). However, it is still possible to elaborate new investigations which, based upon a more general framework of reference, analyze a greater variety of industrial firms from collectives of exporters less investigated. This paper tries, precisely, to contribute in covering this gap of research, describing and comparing foreign distribution shown by Catalan and Spanish (non-Catalan) industrial exporters.

2. A GENERAL FRAMEWORK ON THE SELECTION OF INTERNATIONAL CHANNELS OF DISTRIBUTION

The internalization dilemma around export activity is based upon the fact that it seems highly probable that an exporting firm prefers to establish a proprietary -or, perhaps, a shared-institutional mechanism to develop commercialization and/or distribution activities abroad, versus the alternative of contracting these transactions in the marketplace, mainly when the costs associated with such internalization will be compensated by the benefits derived from a greater control over commercial performance (Root, 1994).

In this sense, one of the aspects most usually considered has to do with the minimization of production and transaction costs. It implies, basically, a comparison between the costs linked to formulate and reinforce contracts established with agents, independent distributors or even final users abroad, and the greater administrative costs due to internalizing all of the activities related to distribution in foreign markets inside the firm (Hennart, 1982; Klein et al., 1990).

Likewise, it is quite common to identify a certain willingness among managers to try to control, as much as possible, marketing and/or distribution operations. It is usually understood as the mechanism which will allow them to perform and coordinate the different production functions (supplying, manufacturing, commercialization, complementary services, etc.) much better, meeting more directly the consumer´s needs and receiving, in better conditions, feed-back from markets (Root, 1994). Such an intrinsic interest to satisfy this necessity of control in the performance of distribution could also cause the firm to consider, and sometimes decide, for internalization.

In a similar way, some intents destined to use and protect, in the best possible way, its assets, resources and specific capabilities from their imitation by competitors, as well as to overcome knowledge asymmetries between participants when reaching an unknown market (Contractor and Lorange, 1988), can also determine a real interest for integrating -totally or partially- these activities in the domain of an organization. However, to complete such an integration also carries important structural costs which are sometimes very difficult to assume.
Until now, many of these aspects have been treated in an isolated way. We intend to develop here an integrative framework for the selection, by the exporting firm, between two alternative structures to carry out international distribution of its products and/or product lines. This framework is conceived, basically, to relate and integrate outstanding aspects coming from the export literature, the TCA, the contingency theory of the firm and the perspective of industrial organization. In any case, a previous question to the establishment of testable hypotheses refers to the concept used for understanding integration or level of export internalization. To deal with this, some usual proprietary and/or co-operation channels to perform distribution internationally, versus the possibility of contracting such services in the market arena, will be considered.

2.1. Export internalization

Almost every author in this field establishes his/her own definition or typology related to the concept of channel integration. This fact, of course, complicates any possible comparison of the results observed in different studies[5]. However, the existence of a broad variety of alternative mechanisms for exporting towards international markets, which differentiates between them according to the degree of control applied over the assets needed for this international distribution of the product is generally accepted (Alonso, 1993a, 1993b, 1994a).

First of all, we can distinguish between formulas with the aim of exporting indirectly, where this level of control is usually very low, and the more committed mechanisms of direct exporting (Jarillo and Martínez, 1991; Root, 1994)[6]. In this last category a "continuum" of modes can also be found, covering from the performance of export operations by comissionist agents and/or independent distributors located abroad, who would take care of distributing and/or selling to a certain degree -independent or non-integrated forms-, to the internal development of these activities needed to carry out foreign trade through the establishment of proprietary organizations to conduct distribution in international markets (direct investments in the form of commercial delegation/subsidiaries), the using of the headquarter's capabilities for making it, or the sales force's displacement to the target markets -totally internalized, integrated or proprietary forms-. Between both extremes, any other combination of the different mechanisms for exporting directly is also possible. These include some intermediate options such as an establishment of commercial strategic alliances with entities (usually other firms) located in the foreign markets, or even the possibility of sharing the ownership of the assets needed for distribution in the form of a commercial joint-venture (Anderson and Gatignon, 1986; Klein et al., 1990; Alonso, 1993a, 1993b, 1994a; Alonso and Donoso, 1994).

In this paper, we are primarily concerned with identifying the differences existing between the following institutional arrangements in the field of export activity: market contracts versus the organization system, integrating within this last category the intermediate options. The market mechanism means the use of alien networks, formed basically by commissionist agents and/or independent distributors in international markets[7]. The other possible forms are considered alltogether, since all of them imply a certain degree of internalization of export activities and, so, an increased level of international commitment (Campa y Guillén, 1995). In this sense, a commercial alliance with a foreign firm denotes an intermediate level of integration, which tries to take advantage of the partner´s presence and/or market knowledge of a country in question, without the former having to establish itself physically there. Proprietary forms of distribution indicate, perhaps, the highest degree of internalization, as the exporter would run commercial facilities abroad on his own.

2.2. Hypotheses

2.2.1. Channel volume and extent of product lines

In an export context, production costs refer, basically, to those costs associated with the performance of productive, marketing and distribution functions at the international level. If the product volume taken away through foreign channels is relatively low, the exporting firm would prefer to carry out transactions in the market arena, since it is rather possible that some intermediaries could manage the product even more efficiently gathering together several manufacturers´ product lines. However, when this volume increases, production cost advantages associated with an intermediary or market mechanism -agents and/or independent distributors- could decline. So, a firm exporting a certain product line in a greater volume should be able to obtain scale economies in the performance of this function, reducing, consequently, its production costs. It is expected, then, to find a positive relationship between the value of a firm´s exports and its decision to internalize channels of distribution abroad (Klein et al., 1990). This internalization normally implies more complex structures, with more fixed costs also, whose coverage requires comparatively higher levels of export[8].

H1a: The greater the exports of a certain product class in foreign markets, the lower the probability to use only alien networks to carry out distribution

On the other hand, if a firm´s international business is concentrated in a few products and/or key product lines, a stronger willingness to commit resources to assure control and a more direct contact with clients can be expected. This should incentivate the possibility of integrating such activities inside the firm (Anderson and Coughlan, 1987). However, the other way around is also meaningful: if a more extended product line is exported by the same channel of distribution, this could finally be integrated. Since such a product line could remain very diffuse in the agent´s or distributor´s product portfolio, and/or the possibility of obtaining scope economies -and, with them, fewer production costs- from dividing fixed costs of the distribution system into multiple product lines also exists, the preference for a certain degree of internalization would increase. Thus, in terms of product concentration there seem to be enough arguments to defend very different levels of internalization; although, taking into account some results previously obtained by other researchers (Klein et al., 1990), we postulate that:

H1b: A higher concentration of the exported product line rises the probability of distributing through the market mechanism (alien networks of agents and/or independent distributors), while a more extended line and/or multiple product lines enhance internalization of export activities abroad (proprietary networks and/or commercial alliances).

2.2.2. Production technology

Differences in technology among firms could be useful to analyze, for instance, transaction costs effects. So, it is possible to distinguish between mass-production technologies of highly standardized goods and other alternative techniques which make the elaboration of non-standardized products easy -usually in the form of shorter series of production- and/or seem to be more flexible in the production of several items for the same product. The former are different from the latter in the sense that they follow, basically, the least possible variation in the physical or technical traits of a product, stressing several advantages linked to the accomplishment of longer series in performing production activities (scale economies, a greater product homogeneity, low prices, etc.)

In this way, the costs related to establishing *ex-ante* any contact with possible clients or distributors for a certain product class (making them aware of its main chracteristics, agreeing on prices and /or specifying their expected performance) seem to be relatively lower if they are produced by means of mass-production and highly standarized techniques, than in the case of using other technologies which introduce more variety, flexibility and complexity in the final product. Likewise, also *ex-post* (transaction) costs could be expected to decline more with a higher degree of product standardization, making it easy to monitor and reinforce the clauses and specificities of market contracts.

In this way, the surely much less sophisticated and diversified character of those goods produced by means of a mass-production and standardized technology would contribute to reduce information asymmetries existing between sellers and buyers in different countries. This is why we expect the following effect from technology upon downstream integration in export markets by the exporting firm:

H2: Those firms producing highly standardized products with mass-production technologies will tend to externalize their export activities, using alien formulas for conducting distribution, in a greater degree than the rest of the firms.

2.2.3. Asset specificity: specialized knowledge

The existence of highly competitive markets of distribution abroad limits intermediaries´ chances to behave opportunistically, as the manufacturer-exporter can replace them quite easily. However, when some market failures become evident, it results much more difficult to exercise this control over such an undesired behavior without significant costs. This happens, for instance, when one -or both- of the parts engaged in a transaction invests in specific assets (human and/or technical ones), which are characterized by lacking any alternative using outside the framework where transaction takes place.

Such an investment normally means moving from a negotiation context with many intermediaries in the foreign market to another one where the market mechanism would not reveal itself to be so effective to prevent agents´ opportunistic behaviors, due to a very strong reduction in the number of independent channels which were able to manage a manufacturer´s products efficiently. The existence of specific assets in a "manufacturer-foreign distributor" contractual relationship increases significantly switching costs from one intermediary to another. In these cases, it is likely that firms prefer to use more integrated channels, where opportunism can be reduced by the exercise of authority, direct control and more varied incentives than those to be offered to independent distributors (Klein et al., 1990).

Although the presence of idiosyncratic assets in the international arena can be diverse, they are notorious in the context of relationships among participants and knowledge accumulated by the agents involved in transactions (Anderson and Coughlan, 1987; Osborne, 1996). As the level of training to manage and/or sell a product is higher and, with it, the volume of specific knowledge acquired by alien networks abroad -referred, indifferently, to the manufacturer´s product, brand and/or even the marketplace- also increases, it is progressively more difficult to substitute current intermediaries (local agent/distributor) who, at the same time, could reinforce their opportunistic behavior. Where highly specialized knowledge in the relationship between manufacturer-foreign distributor exists, it can be expected that the former tries to establish, with or without the latter´s help, a more integrated mechanism to monitor distribution. A positive relationship is assumed, then, between specific assets transaction and export internalization.

H3: The use of proprietary channels and/or strategic alliances for distribution abroad increases with the level of knowledge specificity linked to a specific transaction or interchange.

2.2.4. Technological and market assets

It is also assumed that, in the presence of intangible assets, the probability of internalizing distribution activities abroad -against the preference for placing them directly in the market- increases (Campa and Guillén, 1995). The reason could be, as revealed in the literature (Hennart, 1982; Kogut y Singh, 1988; Agarwal y Ramaswami, 1992), due to the fact that such assets tend to concentrate a firm´s specific advantages which, in turn, determine market competencies. It seems, then, important to keep a certain degree of internal control over them. This is, in particular, the case of investments in technological (R+D) or market (product differentiation) assets by the manufacturer-exporter.

In terms of highly technological assets, there is an important risk related to the dissipation of the economic value of their rents as the market mechanism is used. If this were the case, it could be extremely difficult to design a contract addressing *ex-ante*, and in detail, all of the unexpected contingencies based upon them which could affect transactions. This would also favor, in turn, that one of the parts wished to take advantage of it for its own benefit. In order to avoid and/or mitigate that such an improper use of independent channels could make a firm´s technological assets be scattered among competitors, the owner of these resources should try to internalize exchange operations in order to get, by means of an integrated channel, greater control of all of these activities, including any dissemination of key technological information.

H4a: The greater the level of a firm's technological assets, the lower the likelihood of externalizing export operations through alien netwoks of distribution.

On the other hand, if a product is not excessively differentiated, the use of intermediaries in the marketplace surely seems better; and the other way around, a substantial product differentiation -and, with it, a lower substitutibility- could favor its distribution by integrated channels. Highly differentiated products are rarely affected by competitive prices, which makes it difficult to cut a manufacturer´s profits whose international distribution has been internalized. However, when products are rather similar, the distributor´s cost structure (independent channel) usually faces competitors´ prices better than a proprietary mechanism in the form, for instance, of a commercial subsidiary (Anderson and Coughlan, 1987). Moreover, to manage and sell differentiated goods is usually more complex and demands more sophisticated skills than the commercialization of standardized goods. It can also encourage a predilection for more integrated channels.

H4b: The greater the degree of product differentiation, the higher the probability of distributing exported goods by means of internalized channels (proprietary networks and/or commercial alliances).

2.2.5. Complementary services

Channel internalization also facilitates that pre/post-sell services linked to the exported good can be offered from subsidiaries and/or delegations in international markets, placing them nearer the final user. Very often they are also specified inside long-term commercial agreements with foreign partners. Although sometimes it may also be a matter considered in market contracts established with local and independent distributors, when comissionist agents are used, such services -if offered- are generally performed by the same manufacturer from his/her country of origen. So, in those cases where a substantial level of complimentary services to sell are required, or its supply should take place as near to foreign clients as possible, proprietary channels of distribution -versus alien or independent ones- will rather be preferred (Anderson and Coughlan, 1987).

H5: The higher the level of complimentary services required with the product abroad, the higher the likelihood of channel integration.

2.2.6. Exporting firm's characteristics

The specialized literature points out the potential impact of size and resource availability as key factors determining the emergence -or not- of specific formulas for export internalization (Agarwal and Ramaswami, 1992; Erramilli and Rao, 1993; Campa and Guillén, 1995; Osborne, 1996; Aulakh and Kotabe, 1997). Concretely, some forms like direct investments in commercial delegations and subsidiaries seem to fit much better those firms whose large resources and/or dimensions allow them to face the substantial risks -linked to either the target country or the economic investment itself- usually involved in such foreign direct investments. So, we also postulate:

H6a: Greater firm size or resource access increases the probability of integration by means of proprietary channels and/or commercial alliances with foreign partners for distributing abroad, as opposed to the use of the market alternative (alien networks of agents and/or independent distributors).

Likewise, exporting firms highly participated in by foreign investors are used to easily accessing a series of resources (technical, economic, human, etc.), tacit knowledge (information about business opportunities in other countries, contacts to establish commercial alliances with foreign entities, etc.) or even the possibility of taking advantage of the investors' commercial channels set up in their respective market-countries that other firms, less intervened in by foreign capital or non-participated in at all, cannot enjoy. It is expected, then, that as the degree of association with some foreign headquarters in terms of capital rises, the possibility of having those commercial agreements established and/or using their own channels for distributing abroad will be also increased. So, it will also be contrasted whether:

H6b: The greater the foreign capital participation, the higher the probability of internalizing foreign distribution activities through the setting up of proprietary networks and/or commercial alliances, versus the use of exclusively independent distribution channels.

In terms of the other exporter's characteristics, it seems that a higher degree of commitment with export activity and reliance on international markets for profits should be endorsed by the use of more integrated and committed mechanisms to distribute these exports abroad over other alternatives (Campa and Guillén, 1995; Osborne, 1996). However, if export activity was rarely planned and still denoted a small rate of exports to the firm's total sales, without any specialized department in foreign trade even existing, such behavior should be typically associated with the recourse to independent intermediaries. In those cases, neither an investment in proprietary networks seems to be justified nor the firm's international business has enough strategic importance as to establish long-term agreements for distribution with other partners.

H6c: A higher degree of commitment with export activity increases the likelihood of integration by means of its own channels of distribution set up abroad and/or the establishment of institutional arrangements to share control (commercial alliances with foreign partners), instead of developing alien channels of agents and/or independent distributors.

2.2.7 Export markets

Selection between independent channels and those reflecting a certain level of integration (commercial agreements and, especially, proprietary distribution) could also depend upon the foreign country-market to enter (Klein et al., 1990). Managing a highly integrated channel would surely be more difficult in countries culturally far from the exporting firm´s one (Anderson and Coughlan, 1987; Osborne, 1996). Management techniques needed to run commercial investments abroad could not be transferred so easily, nor in the same conditions, from one or more countries to another. Linguistic questions, other cultural barriers even greater than these, as well as different business practices from one place to another, could also be significant.

In order to overcome such cultural aspects, as well as to facilitate product adaptation into a very different market from the domestic one, local agents and other intermediaries are addressed as a surer mechanism for selling abroad. So, in culturally distant markets (from the firm´s origen) it seems at least complicated to manage highly integrated channels, while in closer countries and/or cultures -both in physical and psychological terms- to the exporter´s own market, export integration inside the firm would be stressed as lower risks are expected to perform this way[9].

H7: The lower the degree of cultural similarity between the target country-market or geographical zone and the manufacturer's domestic market, the greater the probability of conducting distribution through alien channels (networks of agents and/or independent distributors).

2.2.8. External uncertainty

Conditions of external uncertainty are also an important question to address in deciding upon the degree of channel integration (Aulakh and Kotabe, 1997). The economic tradition related to the minimization of transaction costs (Williamson, 1975) considers that, under conditions of elevated uncertainty and agents' bounded rationality, the design and later reinforcement of market contracts, which completely specify any future contingency and determine what to do or how to proceed when this occurs, is seen to be particularly challenging. Thus, many times only incomplete contracts can be finally stipulated, where assymmetrical information between participants becomes decisive and, consequently, the possibility *a posteriori* exists that foreign intermediaries behave opportunistically in defending their own interests. In that situation, it is desirable to internalize foreign operations to a certain degree, trying to absorb such uncertainty by means of decision-making specialization and harmonization of different interests by the use of more diversified incentives and control mechanisms[10].

Nevertheless, some postulates in organizational theory (Lawrence and Lorsch, 1967; Pfeffer and salancik, 1978) appear to defend looser structures -not vertically integrated- as the most effective ones under conditions of elevated external uncertainty. In this sense, organizations with a greater operational flexibility will adapt better to changing conditions in their environment, while more integrated -and, consequently, tighter- organizations will tend to react with greater difficulties. Contracting market agents and/or independent distributors to perform international activity seems to best approach this objective based upon getting and holding an important level of flexibility.

As both arguments cited above -transaction costs analysis and organizational adaptation- show clearly conflicts between them, it is certainly difficult to formulate a hypothesis establishing one single and definitive effect of external uncertainty upon the level of export internalization. Moreover, our database does not allow us to address this problem by breaking down uncertainty in other sub-dimensions (such as volatility and diversity, for instance) and looking at the impact that each one, separately, would have on the channel selection decision in international markets, as other reserarchers have done (Klein et al., 1990). So, the following hypothesis is postulated in the hope that empirical evidence will show us the real meaning of this relationship:

H8: The higher or lower level of uncertainty perceived around a foreign market does not determine the degree of channel integration at all.

2.2.9. Penetration of distribution channels

The selection of a specific mechanism for exporting could also be affected by the perception of some facilities or barriers in penetrating foreign markets. So, a greater incidence of highly integrated forms involving an important degree of resource commitment (as, for instance, proprietary organizations) in situations where the level of penetration obtained by means of distribution activities is considered to be an advantage over other competitors is expected. However, alien and/or independent modes of distribution are more expected when the level of penetration in foreign markets by the channel is considered as rather a competitive obstacle.

H9: The perception of competitive advantages -versus disadvantages- due to the international distribution of the firm's product is linked, in a greater degree, with channel internalization inside the firm.

3. EMPIRICAL EVIDENCE

3.1. Database and instrumental variables

Data required for contrasting the hypotheses formulated above come from a general sample from the Foreign Trade Spanish Institute (ICEX-1992), which is made up of 2,264 industrial exporting firms[11]. With the basic aim of comparing whether differences exist in the way in which these hypotheses are supported by the data, those firms were divided into 428 Catalan exporters and 1,836 exporters from the rest of the Autonomous Communities of Spain.

Table 1. Mechanisms for distribution abroad.

CATALAN FIRMS			NON-CATALAN FIRMS		
DISTRIBUTION	Nº	%	DISTRIBUTION	Nº	%
proprietary forms	116	27,1	proprietary forms	359	19,6
alien/non-proprietary forms	310	72,4	alien/non-proprietary forms	1468	80,0
ns/nc	2	0,5	ns/nc	9	0,5
TOTAL	428	100.0	TOTAL	1836	100,0
PROPRIETARY FORMS*	Nº	%	PROPRIETARY FORMS*	Nº	%
headquarters' channel	12	10,3	headquarters' channel	89	24,8
sales delegation/subsidiary	95	81,9	sales delegation/subsidiary	266	74,1
commercial joint-venture	16	13,8	commercial joint-venture	52	14,5
NON-PROPRIETARY FORMS	Nº	%	NON-PROPRIETARY FORMS	Nº	%
comissionist agent	76	24,5	comissionist agent	324	22,1
independent distributor	146	47,1	independent distributor	871	59,3
other intermediaries	86	27,7	other intermediaries	258	17,6
ns/nc	2	0,6	ns/nc	15	1,0
TOTAL	310	100,0	TOTAL	1468	100,0
COMMERCIAL ALLIANCE	Nº	%	COMMERCIAL ALLIANCE	Nº	%
Yes	104	24,3	Yes	260	14,2
No	324	75,7	No	1576	85,8
TOTAL	428	100,0	TOTAL	1836	100,0

*More than one option per firm is possible. Source: database ICEX-92.

In **Table 1**, a comparative description of the mechanisms used for conducting international distribution by both collectives of exporters is shown. With the intention of identifying the degree of export internalization, the proportion of exporters that focus on foreign markets having internalized totally or partially such activity should be looked at, that is, the number of firms which, in both groups, dispose of some proprietary organization abroad and/or have established a long-term commercial agreement with some other entity for product distribution at the international scale, versus the proportion of those firms which only distribute through alien forms (basically, networks of agents and/or independent distributors), and without having set up any commercial alliance.

Table 2. Degree of export internalization.

CATALAN FIRMS			NON-CATALAN FIRMS		
	Nº	%		Nº	%
Proprietary forms + commercial alliance	41	9,5	Proprietary forms + commercial alliance	88	4,8
Proprietary forms only	75	17,5	Proprietary forms only	271	14,7
Commercial alliance only	63	14,7	Commercial alliance only	172	9,3
INTERNALIZE (total)	179	41,8	INTERNALIZE (total)	531	28,9
EXTERNALIZE (alien networks only)	247	57,7	EXTERNALIZE (alien networks only)	1296	70,6
NS/NC	2	0,5	NS/NC	9	0,5
TOTAL	428	100,0	TOTAL	1836	100,0

Source: database ICEX-92.

In **Table 2** those percentages are presented both for the Catalan firms and the non-Catalan ones in the sample under study. Thus, data in Table 2 derive directly from Table 1, once all firms are re-classified in terms of those which internalize their product distribution abroad (using a proprietary network, a commercial alliance, or both modes simultaneously), against those which externalize their export activity using alien networks and without establishing strategic alliances with foreign partners.

As can be easily observed, the proportion of Catalan exporters who have internalized their exports to a certain degree reaches 41.8%, while the percentage of Catalan firms which externalize them in the marketplace is 57.7%. Within the non-Catalan exporters those same percentages are 28.9% and 70.6%, respectively. In both groups, then, export internalization is still below export externalization, as typically occurs among populations with a brief exporting tradition. Nevertheless, it is also detected that, in comparative terms, the degree of internalization observed in export activity is somewhat superior for the case of Catalan firms in the sample ICEX-92. This corroborates that, at least according to these data, Catalan exporters seem to be more committed with internationalization than the rest of the firms in the country.

The following analysis, however, is restricted to only the 372 industrial exporters from Catalonia and 1,482 non-Catalan ones who did not present problems in terms of information about independent variables. **Table 3** specifies these variables (dependent and instrumentals) used, which allow us to collect and analyse data in order to contrast the hypotheses set out above, taking into account that the introduction of categorical variables in the analysis is done through binaries, with so many binaries as categories had the corresponding variable but one (omitted or of reference).

3.2. Model estimation

To test the hypotheses related to the factors determining the degree of internalization of export channels abroad, a logistic regression model, estimated by the method of maximum likelihood, was used (Gracia, 1988). In these models, the dependent variable is a binary (0,1).

In our case, the model analyzing export internalization compares those firms using either proprietary distribution abroad or commercial alliances with foreign partners, or both, with the rest, that is, those who do not internalize their exports at all and distribute only by means of alien intermediaries (networks of agents and/or independent distributors). A comparison is made, then, between those firms externalizing their exports in the market (INTEXP=0), and those which have integrated forward into export markets to a certain degree (INTEXP=1). In export literature, the use of logistic regression models, as well as discriminant analysis, is quite common to establish comparisons in the same way (Cavusgil and Naor, 1987; Anderson and Couglan, 1987; Klein et al., 1990; Campa and Guillén, 1995; Aulakh and Kotabe, 1997).

Table 3. Variables introduced in analysis.

DIMENSION/ VARIABLE	CODE	MEASURE
Degree of international distribution integration		
Export internalization (var. dependent)	INTEXP	1. Proprietary form and/or commercial alliance 0. Alien network/s only
Export channel: volume and scope		
Exports (absolute volume)	VAR692B	1. < 100 2. 100-600 3. > 600 (Mill. ptas.)
% 3 main product / total exports	VAR53B	1. 100% 0. < 100%
Specialized knowledge		
Market information source: distributor/s	VARR703	1. Specific knowledge 0. Non-specific knowledge
Production technology		
Production system	VAR36B	1.Long series-not very flexible 0. Other system/s
Assets technological intensity		
% expenses R+D / total sales	VARR44B	1. 0% 2. < 2% 3. > 2%
Market intangibles		
Product policy	VAR61B	1. Differentiated-high price 0. Other product policy
Promotional activities abroad	VARR13	1. Performed 0. Not performed
Customer services		
Level costumer service vs. competitors	VARR39B	1. Higher 0. Equal, lower or not applied
Foreign Trade dpt.: Post-sales service	VAR367	1. Performs 0. Does not perform
Foreign capital		
% foreign capital penetration	VAR68B	1. 0% 2. > 0%-50% 3. > 50%
Size and resource availability		
No. of employees	VAR06B	1. < 100 2. 100-500 3. > 500
Investment perceived for export internalization	VARR553	1. High 0. Low
Export commitment		
% exports / total sales	VAR0015B	1. > 25% 0. < 25%
Export character	VAR273	1. Unsolicited orders coverage 0. Formal-proactive
Existence Foreign Trade Dpt.	VAR54	1. Yes 0. No
Export: Geographical destination*.		
European Community (in 1992)	CEE (1991)	1. Exports to... 0. Does not export to...
Other European countries	OTHEREU	1. Exports to... 0. Does not export to...
U.S. and/or Canada	US-CAN	1. Exports to... 0. Does not export to...
Rest of America	RESTAM	1. Exports to... 0. Does not export to...
Asiatic-Pacific area	ASIA-PAC	1. Exports to... 0. Does not export to...
Uncertainty		
Ignorance about foreign market/s	BAR8113	1. Yes 0. No
Foreign distribution advantage		
Level of penetration vs. competitors	VARRR7	1. Competitive advantage for export 2. Competitive disadvantage for export 3. Without effects on export

*Due to its considerable irregularity we do not include "exports to the rest of the world" in the analysis. Source: Survey ICEX-92.

Once estimated, predicted values in logistic regression models are indeed probabilities (in this case, of export internalization). In fact, the estimated probability of internalizing export activity follows a logistic model exp (z)/(1+exp(z)), where z is a linear function of the independent variables. However, in these models, estimated coefficients do not directly reflect the magnitude of the effect upon the probability that a phenomenon takes place due to a unitary increase in the corresponding explanatory variable. The sign of the estimated coefficient is what determines the direction of a certain change in that probability: if this coefficient is positive, the probability of an event increases, while if it is negative, its probability decreases[12]. In **Table 4**, results coming from the estimation of this model are presented. Concretely, it shows the estimated coefficients, their level of significance and the statistics of the logistic regression model upon the probability of internalization by means of either proprietary distribution and/or commercial alliance.

Table 4. Results from the model estimation.

VARIABLE	CODE	CATALAN		NON-CATALAN	
		estimated cofficient	standard error	estimated coefficient	standard error
% Export intensity	VAR0015B	0,5783*	0,3030	-0,2919*	0,1678
Geographical destination	CEE (1992)	0,3756	0,4768	0,5149**	0,2504
	OTHEREU	-0,4199	0,3352	0,3864**	0,1784
	US-CAN	0,7083**	0,3213	-0,0251	0,1875
	RESTAM	0,6188*	0,3503	0,2401	0,1798
	ASIA-PAC	-0,2106	0,3150	-0,1622	0,1812
Size (nº employees):	VAR06B				
< 100 employees		-1,4251**	0,6137	-0,2898	0,3479
100-500 employees		-0,8977	0,5553	-0,1196	0,3347
Long series- not very flexible	VAR36B	0,3745	0,3619	-0,4069**	0,1776
% expenses I+D / total sales:	VARR44B				
0%		-0,4668	0,3820	-0,6639***	0,1774
0%-2%		-0,2148	0,2964	-0,3480**	0,1729
Foreign capital penetration:	VAR68B				
0%		-1,3070***	0,3782	-1,5219***	0,2157
>0%-50%		-0,5011	0,6367	-0,8446***	0,3131
Exports (volume):	VAR692B				
< 100 Million ptas.		1,3793***	0,5119	-0,4843**	0,2468
100-600 Million ptas.		0,9494***	0,3941	-0,1422	0,2015
Foreign Trade department	VAR54	0,8496**	0,3710	0,4632***	0,1769
Unsolicited orders coverage	VAR273	-0,0070	0,2857	-0,5075***	0,1650
High product differentiation	VAR61B	0,6751**	0,2712	0,0100	0,1503
Promotional activities abroad	VARR13	0,5301*	0,3142	0,4188***	0,1503
% 3 main products / exports	VAR53B	0,0413	0,2697	-0,2116	0,1557
Post-sales service from F.T. dpt.	VAR367	-0,7217**	0,3281	0,1748	0,1946
Customer service vs. competitors	VARR39B	0,5306*	0,2770	-0,4899***	0,1584
Foreign market uncertainty	BAR8113	-0,3259	0,4347	-0,4803**	0,2182
Market information coming from distributor/s	VARR703	0,5406**	0,2669	0,5882***	0,1469
Foreign distribution perception:	VARRR7				
competitive advantage		1,3185***	0,3425	0,7264***	0,1883
competitive disadvantage		-0,0435	0,3064	0,1220	0,1606
High needed investment perception	VARR553	-0,9003***	0,2817	-0,8038***	0,1756
Constant	CTE	-1,0345	0,8021	0,8509*	0,4851
-2Log-likelihood		385,732		1316,927	
Chi-square		117,469***		413,560***	
Nº valid observations		372		1482	

*p < 0,1; **p < 0,05; ***p < 0,01. Source: database ICEX-92.

For both groups in the sample, Catalan and non-Catalan exporters, our model fits the data observed reasonably well, it being possible to reject -at a 99% level- the null hypothesis that coefficients for all of the independent variables, less the constant, are 0. Moreover, with this model, 75.27% of the examined Catalan exporters are correctly predicted (concretely, 83.18% using non-integrated channels and 63.82% of the users of such integrated mechanisms), as well as 78.88% of the non-Catalan ones (91.58% and 44.64%, respectively)[13].

3.3. Findings and discussion

In terms of H1a (VAR692B), results are rather conflictive between Catalan and non-Catalan firms in the sample. This hypothesis is not supported for the first case, the Catalan exporters with the highest export volume (more than 600 million ptas.) being those who tend to internalize their export activity to a lower degree[14]. For the non-Catalan firms, a higher tendency to integrate exports in the firm's domain is detected, although not with the same significance. As expected, a relationship is found in the sense that a higher export volume (>600 million ptas.) is significantly associated with a lower likelihood to use alien forms to distribute internationally. Additionally, the coefficients for the variable VAR53B, which indicates a greater or lesser diversity of products and/or product lines going through the channel of distribution (H1b), are neither coincident nor show a statistically significant relationship with the dependent variable. In general terms, these results weakly support the influence of production costs, both in terms of export volume (scale economies) as well as distribution of multiple product lines (scope economies), in the selection for the type of export channel. This confirms other inconclusive results about production costs obtained in research upon channel integration (Anderson, 1985; John and Weitz, 1988; Klein et al., 1990; Osborne, 1996).

On the other hand, H2 (VAR36B) is contrasted for the non-Catalan firms, showing an unexpected -but not significant- sign for the Catalan ones. So, only for the first group of firms, a negative effect due to the use of mass-production technologies of highly standarized goods on the probability that export activity is internalized -by means of either proprietary distribution or commercial alliance- is confirmed. So, although only partially, the lower incidence of transaction costs -linked to the market mechanism- when goods are produced by means of a technology rather incapable of granting a strong degree of diversity, flexibility and/or complexity to the final product is also detected. This result confirms the one previously obtained by Campa and Guillén (1995). Although not significantly, Catalan firms using this same technology seem to be a little more concerned with the exercise of a more direct control on foreign operations by internalizing their export activity somewhat. It also has to do, perhaps, with this productive situation itself -to elaborate a long series of standarized products- where an important degree of operational stability is required, and the firm's activities must be fairly isolated from market fluctuations and uncertainties.

H3, related to the variable VARR703, is contrasted as expected for both collectives of exporters. Thus, when key information mainly comes from some foreign distributor/s and, as a consequence, knowledge established in the manufacturer-distributor relationship is highly specialized, a higher propensity to internalize this channel is detected. This mechanism makes it easy to exercise a greater control on the performance of distribution, disciplining the channel closer, and decreasing the possibility of observing opportunistic acts on behalf of the independent intermediary. Our results about knowledge specificity in the field of international transactions are consistent with those by Anderson (1985), Klein et al. (1990) and Osborne (1996). Also for Anderson and Coughlan (1987), products requiring, in order to improve their distribution, the development of more specialized skills and deeper work relationships between agents tend to be channeled internally more than through independent organizations.

As far as the presence of intangible assets of technological character in the exporting firm is concerned (H4a), results reflect -as postulated- a greater probability of internalizing export operations with an increase in the level of R+D expenses (VARR44B), although coefficients are only significant for the non-Catalan firms. So, mainly for these firms, the R+D variable constitutes an outstanding predictor of their export internalization. Although this result is basically the same as that obtained for the analyzed Catalan exporters, its lack of significance for this specific group could be explained by their better technological level, on average, in the ICEX-92 general sample[15], which could make the effect of a higher technological expense on the degree of export internalization less critical.

On the contrary, for these Catalan exporters the influence of a greater product differentiation (VAR61B) and performance of promotional activities abroad (VARR13) upon the tendency to internalize export activity inside the firm -as postulated in H4b- is statistically significant. For the other Spanish firms, only the effect of the latter is significant. These results, especially for the first group, demonstrate their greater capability of generating market intangibles, and confirm other studies which also relate, favorably, product differentiation with domestic and foreign distribution by means of more integrated channels (Coughlan, 1985; Anderson and Couglan, 1987). Osborne (1996) also finds that these channels allow one to manage products with a higher level of specifications better than intermediary channels. For Campa and Guillén (1995), advertisement at the industry level also constitutes a robust predictor of export internalization.

In terms of customer services (H5), results do not tend to converge when comparing both collectives. In the case of Catalan exporters, versus the rest of the firms for whom this result would not be significant, when the firm´s foreign trade department already performs post-sales service (VAR367), the probability of internalizing exports decreases significantly. In such a situation, exporters do not dispose of a local structure to offer this service abroad, being its coverage from the country of origin still possible. This makes it necessary to continue relying upon networks of agents and/or independent distributors to manage and sell the product abroad, versus the situation where offering this service from the customer´s market was suitable or compulsory, which would require a more complex and local infrastructure.

However, to give a better level of service compared to competitors does imply a higher propensity to internalize distribution among Catalan exporters and, on the contrary, a less probable internalization among non-Catalan firms, both parameters being statistically significant. This result suggests that to accomplish the level of service required by the product abroad does not imply the same degree of effort to them: Catalan exporters tend to assure a fair level of accomplishment in customer service internalizing foreign distribution to a higher degree, while, for non-Catalan exporting firms, to confine it to the market mechanism seems to be enough in order to guarantee a level of complementary service better than their competitors. In fact, the existence of such a positive relationship between a better level of customer service and channel integration has not received strong support in export literature, as demonstrated by results obtained by Anderson and Coughlan (1987) and Osbone (1996).

As regards to the effect of size (VAR06B) on export integration, and in spite of the fact that negative signs of all estimated coefficients correspond to what was previously postulated in H6a, only a significant diminution in the probability of integrating export activity among smaller Catalan firms (less than 100 employees), in comparison with the largest ones (more than 500 employees), is detected. Likewise, when it is perceived that export internalization will bring costly investments to the firm in terms of resources, the likelihood of making internalization diminishes, as revealed by the signs for variable VARR553 in both groups of exporters. These results coincide with others previously obtained (Campa and Guillén, 1995; Osborne, 1996), confirming once again that the firm´s size, as well as resource availability, must be considered outstanding predictors of the degree of integration chosen by the firm.

According to H6b, a positive relationship between foreign capital participation (VAR68B) and integration of foreign distribution. activities inside the firm is expected. Such a relationship tends to be confirmed in both collectives, Catalan and non-Catalan exporters, in sample ICEX-92. So, although among Catalan exporters a significant differential effect indicating a greater propensity to internalize them among those principally intervened in (omitted category) versus those participated in in a minority way from abroad does not exist, it is observed, on the contrary, that this propensity decreases significantly when the firm is not participated in by foreign capital at all versus when it is and, moreover, in a majority way. In the non-Catalan collective, both effects are statistically significant. In fact, one of the mechanisms that export integration could adopt has to do with taking advantage of headquarters´ channels of distribution abroad. A similar relationship between foreign capital presence and export internalization is also obtained by Campa and Guillén (1995) among Spanish firms.

It was expected, above, that as the degree of commitment with export activity by the firm rose, its probability of performing product distribution by means of a proprietary establishment abroad and/or commercial alliances with foreign partners would also increase (H6c). In this sense, data show that, regardless of the geographical origen of the firm -Catalan or not-, if it has a foreign trade department, as an organizational unit specialized in export activity inside the firm (VAR54), that probability increases in a significant way[16]. Moreover, in the Spanish (non-Catalan) firms, the existence of a weakly formalized export activity, merely reactive to the reception of unsolicited orders from abroad (VAR273), enhances export externalization in the market-place through alien or independent networks. Although its sign is coincident, this last result is not statistically confirmed for the Catalan firms due to a lower incidence of this kind of scarcely proactive export activity[17].

In fact, the only variable measuring the degree of export commitment that, once both collectives are compared, shows conflicting results between them is the firm's export intensity or exports-to-total sales ratio (VAR0015B): for the Catalan firms, as expected, to export more than 25% of total sales increases, significantly, the possibility of integrating their distribution. This is also the result commonly found in literature (Campa and Guillén, 1995; Osborne, 1996). On the contrary, among the non-Catalan firms the opposite happens, this other finding also being significant. According to data, then, a greater sensitivity is found among Catalan exporters for internalizing their export flow when it represents a more important portion of total sales, while, for the rest of the Spanish firms, this effect is produced only in terms of the absolute volume -not relative- of exports.

The influence assigned to the geographical destination of exports (H7) is, sometimes, very significant in determining the probability of export internalization, although not in the same way for both groups of firms. While among Catalan exporters to channel exports towards countries in the American hemisphere increases this probability clearly, for the other Spanish exporters such an increase is produced when destinations are the European countries. A strong confirmation of the relationship postulated in H7, and concordance with previous research in this sense (Anderson and Coughlan, 1987; Klein et al., 1990; Osborne, 1996) is found, then, to be more clearly among this last group of firms. These tend to exercise greater operational control and seem to be less willing to delegate distribution to local firms from other countries whose characteristics resemble those found domestically in order to overcome cultural barriers and/or gain acceptance in the market. In contrast for Catalan exporting firms, the greater market potential of the American markets -more than their cultural distance-seems to influence channel integration decisions at a higher degree.

The degree of uncertainty associated with foreign markets (BAR8113) tends to diminish the likelihood of channel integration, especially among non-Catalan exporters which remain significantly affected by this factor. So, H8 would be rejected in favor of an argument stressing operational flexibility and/or capability to adapt to changing conditions in the environment as outstanding predictors of a lower degree of organizational integration abroad over the argument, coming from TCA, stressing the preference for internalization due to numerous difficulties in establishing complete market contracts in the presence of much uncertainty. Similar findings are observed by Osborne (1996), and also by Klein et al. (1990), when external uncertainty denotes diversity more than volatility. On the contrary, for Campa and Guillén (1995), lack of knowledge about foreign markets as perceived by the export manager did not even constitute a significant variable.

Finally, both Catalan and non-Catalan exporters identify the presence of competitive advantages -versus disadvantages- in terms of the degree of product penetration gained in international markets because of distribution activities (VARRR7) with export internalization through the establishment of proprietary distribution organizations and/or commercial alliances with foreign firms (H9). However, although presenting the expected sign, Catalan exporters do not show a significantly higher propensity to use alien networks of intermediaries linked to the identification of barriers in penetrating foreign markets.

4. CONCLUSIONS AND IMPLICATIONS

In this paper, the main explanatory factors for understanding industrial Catalan exporters´ progression -versus the rest of Spanish exporting firms- towards increasing levels of foreign commitment during their early stages of internationalization and/or conversion in MNC´s has been attempted to be identified, in a comparative way. In this sense, the internalizing decision or forward integration of export operations inside the firm (proprietary forms) and/or to make them by means of formal co-operation agreements with foreign firms (commercial alliances), versus their maintenance in the market arena through several mechanisms of alien distribution (networks of agents and/or independent distributors), allow us to study this potential projection towards higher levels of international involvement.

In fact, research upon the selection for the optimal level of channel integration in the international context by exporting SME´s seems to have been receiving greater consideration lately, if the increasing number of similar studies is taken into account. Moreover, the development and following application of Transaction-Cost Analysis (TCA) offers a new way to empirically validate some postulates related to the degree of vertical integration in foreign markets decided by the firm. So, we have designed an interpretative framework for explaining selection between two possible structural alternatives for a product´s international distribution: alien networks versus proprietary forms and/or commercial agreements with foreign entities. This framework has allowed us to deal with several aspects related to some "market failures" in transacting specific or intangible assets, the export channel volume and its relationship with production costs, a firm´s structural characteristics and/or export activity, the degree of geographical or cultural proximity to foreign markets as well as the perception of some advantages or disadvantages in performing distribution abroad, as potential determinants of internalization -versus externalization- of export activities inside the firm´s domain.

Data from 428 Catalan and 1,836 Spanish (non-Catalan) exporters in general sample ICEX-92 confirm, firstly, a higher proportion of firms in both groups which prefer to externalize their export activity in the market-place and, more interestingly, a higher degree of internalization among Catalan industrial exporters versus non-Catalan ones. Moreover, the logistic regression model estimated for analyzing the degree of export internalization made by the 1,854 fully examined exporting companies (372 Catalan and 1,482 non-Catalan) fits the commercial behavior exhibited by 75.2% of the Catalan companies and 78.8% of the non-Catalan ones correctly, allowing us to state the following conclusions and implications:

- Catalan firms with a higher export volume in absolute terms tend to internalize their exports to a lesser degree. On the other hand, for the rest of the Spanish exporters, a higher probability of export integration inside the firm, associated with a higher volume of exports, is weakly contrasted. Generally speaking, results do not strongly support the influence of production costs, in terms of exports in volume and/or distribution of multiple product lines, upon export channel selection: not a very surprising conclusion according to other investigations.

- The expected effect regarding the use of mass-production technology of standardized products upon the probability of export internalization is only confirmed among non-Catalan exporters in the sample. The Catalan firms using this same technology prefer to exercise a more direct control upon foreign operations when, as in this case, a truly important level of operational stability is required.

- For both collectives of exporters, Catalan and non-Catalan, we did find that when the amount of knowledge established in the manufacturer-distributor relationship abroad is highly specialized, a stronger propensity for channel integration is detected.

- In terms of the existence of technological assets, our results show a higher probability of export internalization when the volume of R+D/sales increases, which seems to be particularly true in the non-Catalan case. Catalan firms, however, rather show the influence of a higher product differentation and development of foreign promotion activities -and, consequently, a stronger capability of generating market assets- upon the probability of integrating their export operations.

- Catalan exporters also show how coverage of post-sales services from the firm´s export department located domestically tends to enhance selling through alien networks abroad, as compared to when it seems more appropriate covering this service from the foreign market itself, which would require a more complex and local infrastructure. In any case, the Catalan firms analyzed here do show a higher level of performance in this service when their distribution activities are internalized, while the rest of the Spanish exporters seem to give better customer service, in comparison to that offered by their competitors, when they just rely on the market mechanism for distributing their product abroad.

- A positive relationship exists, for both groups of firms, between intervention of foreign capital and export integration in the scope of the firm. On the contrary, the size effect is only significant among Catalan firms, though we find, in both sub-samples, that when managers consider that internalization abroad is linked to very important investments, the probability of internalizing declines.

- In general terms, a higher degree of commitment with export activities by the firm (measured by the existence of an export department and/or by the fact that it does not just export reactively after reception of unsolicited orders) brings a higher probability of using proprietary networks and/or commercial alliances for distributing abroad, regardless of the firm´s geographical origin, whether Catalan or non-Catalan. In this sense, the only variable reflecting a contradiction between both groups is export intensity (export sales / total sales, in %): the Catalan firms are definitely more sensitive to export internalization when their exports represent a higher portion of their total sales.

- Finally, the level of channel internalization according to cultural aspects of export markets also shows a different pattern between both groups of exporters, though it generally declines in front of an important degree of uncertainty about them. In any case, Catalan and non-Catalan firms associate the existence of competitive advantages in penetrating those markets resulting from distribution activities with a higher propensity to internalize them.

Nowadays, it is more than ever necessary to proceed towards an increasing organizational complexity in production and international distribution to meet challenges and commitments associated with internationalization. In particular, greater control by the firms and a stronger position in international markets should be promoted by means of an increasing productive settlement, the establishment of proprietary networks of distribution and /or the use of more active mechanisms of inter-firm co-operation (licensing, franchising, joint-ventures, commercial and/or technological alliances, etc.).

Some of these organizational forms will help the firm to go deeper into relationships with their foreign distributors -the most valued way to capture foreign-market knowledge according to these firms- which seems especially indicated for those (small and medium-sized firms) which normally lack resources to make foreign investments in the form of production subsidiaries. In fact, a more proactive presence in international markets by means of production facilities requires a better evaluation, on behalf of the investor, of country-risk and operational risks in selecting from among different opportunities. However, it is also important that different public institutions in Spain (such as the Ministry of Trade, ICEX, Chambers of Commerce, COPCA in Catalonia, firm associations, etc.) subsidiary support for Spanish exporters, both in logistical and infrastructural terms, to better develop their commercial tasks abroad.

NOTES

[1] In fact, we will not try to establish any general typology about foreign modes of entry, including different institutional arrangements such as licensing, franchising, joint-ventures or production subsidiaries, since they do not really belong to an export path.

[2] This critical question could be formulated in terms of a "make-or-buy decision" placed in the international context.

[3] This argument linked to production costs neither seems very useful in order to explain the use of market exchanges by large firms, nor different degrees of integration exhibited by small-sized firms.

[4] "Asset specificity" points out the fact that some specialized investments are necessary to suport an exchange; while "uncertainty" has to do with a small possibility to forecast unexpected contingencies by the firms (both, internal and external ones) and "frequency" resembles recurrence in the sense of how often a transaction between two (or more) parts takes place.

[5] In this sense, the empirical studies cited before constitute a good example.

[6] In the first case -indirect exporting- exports, rather irregular, are carried out almost like a domestic sale, with the only difference that buyers are independent intermediaries located in the firm's country who become the authentic "exporters". In the second case -direct exporting- the manufacturer engages more directly in this activity, being properly qualified as an "exporter". This paper focuses maninly on this last export mechanism.

[7] Both figures are considered together here, as they do not imply internalization at all. However, some main differences can be detected between them, in terms of taking title of the manufacturer's goods and the number of functions performed to commercialize them abroad.

[8] Such a relationship could be even clearer in the case of a direct investment (commercial subsidiary) or a co-investment (commercial joint-venture) to monitor distribution performed abroad, than for the establishment of a commercial agreement with a foreign partner.

[9] In fact, a certain predominance of looser mechanisms for internalizing exports (commercial alliances with local partners who, by the way, know the country's specificities better) over tighter ones (proprietary organizations to conduct international distribution) could also be reasonably expected.

[10] In this case, commercial alliances with a foreign partner are seen as a superior mode of pseudo-internalization (Contractor and Lorange, 1988; Kogut and Singh, 1988; Agarwal and Ramaswami, 1992; Campa and Guillén, 1995). Through this partner, a firm can acquire the resources and capabilities needed to relax uncertainty and attain deeper market knowledge. A preponderant utilization of partially integrated and/or control-shared forms (commercial joint-ventures or other international alliances for performing distibution activities) in the presence of unknown markets, or the perception of cognitive barriers to access, then, could be expected.

[11] Our research is based upon a survey carried out by ICEX in 1992 among, approximately, the 50,000 Spanish industrial firms which performed export activities in 1991. For a more detailed description of the sample configuration and its statistical representation, see Alonso and Donoso (1994), Alonso (1994b) and Rialp (1997).

[12] As categorical variables represented by binaries are used here, the sign of the coefficient for each binary shows the differential effect of this category with respect to that omitted or of reference -in our case, the last one- upon the probability that the dependent variable equals 1.

[13] These percentages should be taken carefully as classified data have also been used to estimate the model, which could create an up-bias in the classification ratio. We have proceeded this way to give an idea about the goodness of fit with this model.

[14] This unexpected result required a more detailed analysis. The correlation shown by this variable (VAR692B) with many of the other explanatory ones seems to determine it. In fact, another analysis very similar to the one

shown here, but removing those variables showing a strong correlation with the export volume in absolute terms, changes the sign obtained for this variable in the expected manner for the Catalan exporters also.

[15] While 40.7% of the Catalan exporters in the sample spend more than 2% of their total sales in R+D, only 26% of non-Catalan firms spend this same amount. Moreover, only 22% of Catalan ones do not spend anything in R+D activities, while this percentage reaches 40.1% among the non-Catalans.

[16] It is also possible that a certain functional sustitutibility among some of the tasks made by this department and by a proprietary organization or a strategic alliance abroad takes place (basically, post-sales service and contacts with international customers).

[17] In this sense, around 55% of Catalan firms in the sample satisfy international orders in a scarcely planned way, while this percentage is 79.5% among non-Catalan exporters. On the contrary, 48.1% of Catalan exporters formally plan their export activity, as opposed to only 20.2% of the exporters located outside Catalonia.

BIBLIOGRAPHY

AGARWAL, Sanjeev & RAMASWAMI, Sridhar N. (1992): "Choice of Foreign Market Entry Mode: Impact of Ownership, Location and Internalization Factors". *Journal of International Business Studies*, first quarter, p. 1-27.

ALONSO, José A. (1993a): "Capacidades exportadoras y estrategia internacional de la empresa", en Velarde, J. et al. (directores): Empresas y empresarios españoles en la encrucijada de los 90. Editorial Civitas, Madrid, España, p. 205-258.

ALONSO, José A. (1993b): "Internationalisation Process and Forms of Market Penetration: A Dynamic Proposal". Documento de trabajo nº 9410. Universidad Complutense, Madrid.

ALONSO, José A. (1994a): "El proceso de internacionalización de la empresa", *Información Comercial Española*, nº 725, Enero, p. 127-143.

ALONSO, José A. (1994b): "Estimació d´un model de comportament exportador: aplicación del mètode LISREL". *Revista Econòmica de Catalunya*, nº 26, p. 52-64.

ALONSO, José A. & DONOSO, Vicente (1994): Competitividad de la empresa exportadora española. ICEX, Madrid.

ANDERSON, Erin & GATIGNON, Hubert (1986): "Modes of Foreign Entry: A Transaction Cost Analysis and Propositions", *Journal of International Business Studies*, vol. 17, October, p. 1-26.

ANDERSON, Erin (1985): "The Sales Person as Outside Agent or Employee: a Transaction Cost Analysis", *Marketing Science*, vol. 4, summer, p. 234-254.

ANDERSON, Erin & COUGHLAN, Anne T. (1987): "International Market Entry and Expansion Via Independent or Integrated Channels of Distribution", *Journal of Marketing*, vol. 51, nº 1, p. 71-82.

AULAK, Preet S. & KOTABE, Masaaki (1997): "Antecedents and Performance Implications of Channel Integration in Foreign Markets". *Journal of International Business Studies*, Vol. 28, No. 1, p. 145-175.

BILKEY, Warren J. (1985): “Development of Export Marketing Guidelines”, *International Marketing Review*, vol. 2, spring, p. 31-40.

CAMPA, José M. & GUILLÉN, Mauro F. (1995): "Firm Determinants of Export Internalization and the Choice Between Commercial Alliances and Proprietary Distribution Channels". Non-published article, MIT.

CAVUSGIL, S. Tamer & NAOR, Jacob (1987): “Firm and Management Characteristics as Discriminators of Export Marketing Activity”. *Journal of Business Research*, vol. 15, p. 221-235.

CONTRACTOR, Farok J. & LORANGE, Peter (1988): "Why Should Firms Cooperate: The Strategy and Economic Basis for Cooperative Ventures", en Contractor, F. J. y Lorange, P. (eds.): Cooperative Strategies in International Business, p. 3-28, Lexington Books. Lexington.

COUGHLAN, Anne T. (1985): “Competition and Cooperation in Marketing Channel Choice: Theory and Application”, *Marketing Science*, vol. 4, nº 2, p. 110-129.

ERRAMILLI, M. Krishna & RAO, C. P. (1993): "Service Firms' International Entry-Mode Choice: A Modified Transaction Cost Analysis Approach", *Journal of Marketing*, vol. 57, July, p. 19-38.

FORD, David & ROSSON, Philip J. (1982): “The Relationships Between Manufacturers and Their Overseas Distributors”, en Czinkota, M. R. y Tesar, G. (eds.): Export Management and International Context, Praeger, New York, p. 257-275.

GRACIA, Mercedes. (1988): "Modelos con variable dependiente cualitativa y de variación limitada", *Cuadernos Económicos del ICE*, nº 39 (2), p. 7-49.

HENNART, Jean F. (1982): A Theory of the Multinational Enterprises. The Univerity of Michigan Press. Ann Arbor, MI.

HENNART, Jean F. (1989): "Can the 'New Forms of Investment' Substitute for the 'Old Forms'? A Transaction Cost Perspective", *Journal of International Business Studies*, vol. 20, nº 2, p. 211-234.

JARILLO, José. C. & MARTINEZ, Jon (1991): Estrategia internacional -más allá de la exportación. McGraw Hill Interamericana, S.A., Madrid, España.

JOHANSON, Jan & VAHLNE, Jan-Erik (1977): "The Internationalization Process of the Firm: A Model of Knowledge Development and Increasing Foreign Markets Commitments", *Journal of International Business*, vol. 8, nº 1, p. 23-32.

JOHANSON, Jan & VAHLNE, Jan-Erik (1990): "The Mechanism of Internationalization", *International Marketing Review*, vol. 7, nº 4, p. 11-24.

JOHANSON, Jan & WIEDERSHEIM-PAUL, Finn (1975): "The Internationalization of the Firm: Four Swedish Cases", *Journal of Management Studies*, vol. 12, nº 3, p. 305-322.

JOHN, George & WEITZ, Barton (1988): “Forward Integration into Distribution: Empirical Test of Transaction Costs Analysis”, *Journal of Law, Economics and Organization*, vol. 4, fall, p. 121-139.

KLEIN, Saul et al. (1990): "A Transaction Cost Analysis Model of Channel Integration in International Markets", *Journal of Marketing Research*, vol. 27, nº 2, p. 196-208.

KOGUT, Bruce & SINGH, Harbir (1988): "The Effect of National Culture on the Choice of Entry Mode", *Journal of International Business Studies*, vol. 19, p. 411-432.

LAWRENCE, Paul & LORSCH, Jay (1967): Organisations and Environments. Harvard Business School, Cambridge.

OSBORNE, Kerri (1996): "The Channel Integration Decision for SME's Manufacturing Exporters", *International Small Business Journal*, vol. 14, nº 3, p. 40-56.

PFEFFER, Jeffrey & SALANCIK, Gerald (1978): The External Control of Organisations: A Resource-dependence Perspective. Harper and Row Publishers, N.Y.

REID, Stan D. (1983): "Firm Internationalization, Transaction Costs and Strategy Choice", *International Marketing Review*, vol. 1, nº 2, p. 44-56.

REID, Stan D. (1984): "Market Expansion and Firm Internationalization", en Kaynak, E. (editor): International Marketing Management, Praeger, New York, p.197-206.

REID, Stan D. (1987): "Export Strategies, Structure and Performance: An Empirical Study of Small Italian Manufacturing Firms", en Rosson, P. y Reid, S. D. (eds.): Managing Market Entry and Expansion, Praeger, New York, p. 335-354.

RIALP, Alex (1997): Las fases iniciales del proceso de internacionalización de las empresas industriales catalanas: una aproximación empírica. Tesis doctoral no publicada. Universitat Autònoma de Barcelona.

ROOT, Franklin R. (1994): Entry Strategies for International Markets. Lexington Books, N.Y.

ROSSON, Philip J. y FORD, I. David (1982): "Manufacturer-Overseas Distributor Relations and Export Performance", *Journal of International Business Studies*, vol. 13, p. 57-72.

SALAS, Vicente (1991): "Costes de transacción y organización del intercambio". Material docente. Universidad Autónoma de Barcelona.

WILLIAMSON, Oliver E. (1975): Markets and Hierarchies, The Free Press, New York.

WILLIAMSON, Oliver E. (1979): "Transaction Cost Economics: The Governance of Contractual Relations", *Journal of Law and Economics*, vol. 22, p. 233 - 261.

WILLIAMSON, Oliver E. (1985): The Economic Institutions of Capitalism. The Free Press, New York.