Does geography matter for inter-firm cooperation in marketing? evidence from Chile and Scotland

Christian Felzensztein*
Faculty of Economics and Management
Universidad Austral de Chile, Valdivia, Chile
cfelzens@uach.cl

Sara Carter
University of Stirling, Scotland, UK

Abstract

This study develops the concept of and extends the research into the beneficial effects accruing from regional industry clusters by exploring the role of geographic co-location and the influence of social networks in the development of firm-level marketing externalities. The theoretical position underpinning this study assumes that entrepreneurial influences (for example, the acquisition of social capital and the use of networks), rather than geographical co-location, are more important in the development of inter-firm cooperation (Van Dijk and Sverrisson, 2003; Lechner and Dowling, 2003). Moreover, entrepreneurial influences are likely to increase in future importance, as communication technologies, used to build networks between firms, are changing the rules of geography and co-location.

Data for this study was collected in two main stages. Semi-structured personal interviews (during 2003 and 2004), based on a purposeful sample of twenty-two companies in two regions in Scotland and two regions in Chile drawn from a single industry, salmon farming, a sector that makes a substantial contribution to the remote-rural and regional economies of both Scotland and Chile. Stage two entailed a postal questionnaire survey and follow-up process during 2005, to the total population of companies involved in the main value chain activities of this industry (N=229) in the two participant counties.

The results show that geographical co-location is not the key issue for marketing cooperation, besides social networking is considered important. Both the general business culture of the country and the ‘special’ characteristics of specific regions within countries affect cooperative behaviour, creating a special environment which manifested a complex mix of co-operation and competition

Keywords: Marketing cooperation, Regional clusters, Social networks, Salmon industry
Does geography matter for inter-firm cooperation in marketing? Evidence from Chile and Scotland

Introduction
The role of regional clusters in the development and growth of entrepreneurial firms has been a key research theme within the marketing and management literature over the past two decades. The main focus of this research has been to consider issues relating to economic externalities: economies of scale or scope and the effects of knowledge diffusion or, as Krugman (1991) defined them, knowledge spillovers. While the idea of firm-level marketing externalities has been mooted as a potential benefit arising from geographic agglomeration (Brown and Bell, 2001), there has been, as yet, little research undertaken which can support such claims.

This study develops the concept of and extends the research into the beneficial effects accruing from regional industry clusters by exploring the role of geographic co-location and the influence of social networks in the development of firm-level marketing externalities. The theoretical position underpinning this study assumes that entrepreneurial influences (for example, the acquisition of social capital and the use of networks), rather than geographical co-location, are more important in the development of inter-firm cooperation (Van Dijk and Sverrisson, 2003; Lechner and Dowling, 2003). Moreover, entrepreneurial influences are likely to increase in future importance, as communication technologies, used to build networks between firms, are changing the rules of geography and co-location.

Inter-firm networks and co-location
A new growing interest in localized networks and inter-firm relations has emerged; deriving support and competitive advantage through highly localised inter-firm relationships, place specific history, economic factors, values and culture (McNaughton and Bell, 1999; Brown and McNaughton 2001, 2002).

Inter-firm interaction or networks in localised clusters cannot be seen in isolation. Research has focused on concepts acknowledged by Porter (1998) as being ‘social glue’. Thus, companies need to consider aspects of social structures (Gulati, 1999; Ahuja, 2000), social capital, referring to the social structures that determine who is going to interact (Davidsson and Honing, 2003), as well as the notions of embeddedness (Granovetter, 1985; Aldrich and Zimmer, 1986; Jack and Anderson, 2002), the mechanism whereby an entrepreneur, firm or organisation becomes part of the local structure involving the creation of social ties with the local environment (Jack and Anderson, 2002).

Implicit in each of the potential benefits resulting from SMEs networking, is the notion of trust as a key element in the development of a co-operation relationship (Bucklin and Sengupta, 1993; Hoang and Antoncic, 2003). Trust allows partners to respect the assumed commitments among the firms in the specific network (Joly and Mangematin, 1996). However, the threat of opportunistic behaviour, sometimes called the free-rider problem, by one or more partners is an ever-present risk (Bucklin and Sengupta, 1993; Gulati, 1999; Ahuja, 2000). Unlike co-located clusters, networks do not have to be geographically concentrated (Brown and McNaughton, 2002). As soon as trust among players has been established and the strategic direction agreed, the operational dialogue and communication can then be made possible through electronic means.

Maskell et al., (1998) and Maskell (2001) suggest that the social process of learning and innovation in inter-firm co-operation work best when partners involved are sufficiently physically
close to allow frequent interaction and effective exchange of information. The social process that is embedded in regional communities that share a common knowledge base and culture may be the best facilitator for inter-firm collaboration (Cooke, 1998; McKelvey et al., 2002; Wolfe, 2003). Close proximity at regional level facilitates frequent face-to-face interaction in both formal and informal settings (Birley, 1985). This process creates a common language or code of communication, sometimes called tacit knowledge, through repeated interaction over time (Patel and Pavitt, 1994). This, in turn, leads to the creation of regional institutions that help to reinforce the right environments for inter-firm interaction (McKelvey et al., 2002; Wolfe, 2003).

Huggins (2000) stressed the importance of co-operative activities and trustful relationships for achieving better competitive advantages for business. Furthermore, Huggins stated that social groups seem to be the most potent form of inter-firm network, and an initial informal structure is the best facilitator for this relationship. This argument stresses the importance of clusters and industrial districts as ‘social network topography’ (Van Dijk and Sverrisson, 2003), considering the key elements of the social relationships or ‘relational mix’ (Lechner and Dowling, 2003), and not only using an economic geography perspective.

An analysis of the networks literature provides an insight into the organisational processes that underlie alliance decisions. Social networks make potential partners aware of each other’s existence, needs and capabilities requirements for entering alliances, help to develop the trust necessary for alliances (Gulati, 1995; Gulati, Nohria and Zaheer, 2000) and, moreover, make opportunism more costly because of reputation effects (Gulati, 1995). Granovetter (1992) identified two distinct components of social structure that are influential in alliance formation: the relational components consisting of direct relationships within which the firm is embedded, and structural components which comprise the overall social network within which firms exist and which provide knowledge about potential partners that firms may acquire from a variety of social sources. By participating in alliances and networks, firms develop capabilities in alliance formation that accrue as a result of a historical process of learning and which can then be used in subsequent new alliance formation (Dierickx and Cool, 1989).

Social networking

As noted above, social networks are key elements in relationships, at both organisational and personal levels, in embedded local firms (Birley, 1985; Dubini and Aldrich, 1991; Johannisson, 1995; Ahuja, 2000). Networks can also become the basis of a rich information exchange that enables firms to learn about new alliance and market opportunities with reliable partners (Birley, 1985; Powell et al., 1996; Gulati, 1999; Ahuja, 2000). The development and gradual building of such networks implies a degree of mutual trust among partners (Gulati, 1999; Hoang and Antoncic, 2003). The literature identifies three broad types of networks (Johannisson, 1995; Mackinnon et al., 2004). Exchange networks involve commercial relationships with customers and suppliers; communication networks involve individuals who provide a firm with contacts and knowledge to inform business activities (for example, with industry bodies); and social networks, including informal relations, friends and other connections which provide support to owner-managers, and which have a broader scope of development, social embedded norms and expectations.

From the review of the literature, three research propositions can be formulated:

**Proposition 1:** Social networking has a greater influence than geographic proximity in facilitating inter-firm cooperation in marketing activities.

**Proposition 2:** The social elements of networking are positively correlated to the development of inter-firm cooperation in marketing activities.

As this paper involves a cross-country analysis, it is expected that:

**Proposition 3:** Countries and regions in which there is a high level of social collectivism will demonstrate higher levels of inter-firm co-operation in marketing activities.
Research methodology

Data for this study was collected in two main stages. Semi-structured personal interviews (during 2003 and 2004), based on a purposeful sample of twenty-two companies in two regions in Scotland and two regions in Chile drawn from a single industry, salmon farming, a sector that makes a substantial contribution to the remote-rural and regional economies of both Scotland and Chile. Stage two entailed a postal questionnaire survey and follow-up process during 2005, to the total population of companies involved in the main value chain activities of this industry (N=229) in the two participant counties.

The questionnaire included a cover letter asking the Managing Directors/CEOs/owner-manger to answer the questionnaire, a convention of small firms’ research (Tzokas, Carter and Kyriazopoulos, 2001). Consequently, they would have a ‘total picture’ of how their firm’s co-operation, or non co-operation, in the marketing activities within the industrial district or regional cluster was an important contributing factor. Furthermore, cover letters outlined the nature of the study and emphasized the confidentiality of the research. As an incentive for participation, respondents were also given the opportunity to request a summary report of findings from the completed study.

The questionnaire was sent out in the official language of each country under study (Scotland: English / Chile: Spanish), including a pre-paid envelope for replies. At the same time, as advised by academics and practitioners, the questionnaire was sent out from a local University address (University of Strathclyde in Scotland and Universidad Austral de Chile in southern Chile) as it facilitated the delivery, quick reply and collection of the answered questionnaires.

The follow-up process consisted of e-mails to a sample of the participant companies in both countries. This process was also supplemented with more intensive phone calls, as advised by Dillman (1978). At the same time, the researcher re-assured the respondents of confidentiality and free access to the study’s findings. In addition to this process, the assistant and more collaboration from company managers and the trade associations in Scotland and Chile were sought, aimed at increasing the response rate.

Excluding refusals to answer the questionnaire and companies that had closed, or were not trading, the effective response rate achieved was 25.6% (33% response rate in Scotland and 20% in Chile). Given the confidentiality, strategic nature, depth and length of the questionnaire, this response rate was not totally unexpected, and is consistent with in-depth surveys of this nature requiring time and commitment to complete. The issues of ‘research fatigue’ (Cooper, 2000; Ibeh et al., 2004), which is related to the case of over sampled industries, and the specific ‘environment of the research organisation’ (Tomaskovic-Devey et al., 1994), also may give an answer to the response rate achieved in this research. This is an important point of discussion, as the salmon farming industry is one the major economic sectors in southern Chile being constantly approached by university students and researchers. Previous exploratory two pages questionnaire-survey research, conducted in this Chilean industry by the National Statistics Bureau in 2003, only achieved a response rate of 30% (30 companies out of 100). This shows the low-response rate of this industry in social science research.

The differences in response rate may also be linked to cultural, economic (structural) and organisational factors in the participant countries, as well as in the specificity of the aquaculture/agriculture sectors. For example, the power distance factor (Hofstede, 1980) may play an important role in the different countries under study. The assumption being that higher responses rates may be achieved in cultures with less power distances (e.g. Scotland) than in those with greater power distances (e.g. Chile). Probably, this issue needs to be taken further in future cross-cultural research. Moreover, different organisational size and the use of gatekeepers in larger organisations (Ibeh et al., 2004), limiting access to respondents and
filtering unsolicited questionnaires to the managing director, may also influence the results in the response rate achieved, especially in the case of Chile.

A high level of item response was found in the usable questionnaires (i.e. all questions were answered), as well as a high internal consistency of the responses. The usable responses were analysed using SPSS for Windows (version 11.5). The analysis was undertaken using exploratory methods.

Results
The first set of primary data for this study was collected using semi-structured personal interviews, based on a purposive sample of twenty-two companies in two regions in Scotland (Northwest Scotland and Shetland Isles) and two regions in Chile (IX and X regions) drawn from a single industry, salmon farming. This sector makes a substantial contribution to both the rural-remote and regional economies of both Scotland and Chile.

Demographic characteristics of the sample
This section presents the main demographic characteristics of the twenty-two respondent companies that participated in the exploratory interviews in Scotland and Chile. Of the Scottish based companies, two are located in the central belt of Scotland (Perth), four in the North-west and Inverness and six located in the Shetland Isles. Half of the companies located in Scotland correspond to small and medium size enterprises. Three companies are subsidiaries of multinational corporations, one is a large company and two are trade associations. This profile stresses the importance of small and medium size enterprises within the industry. Seven out of the twelve firms are fully integrated, comprising the full range of value chain activities of the salmon farming industry, from hatchery, harvest, processing and sales to traders or distributors.

More that half of the ten participating Chilean companies are located in Xth Region, mainly in the city of Puerto Montt, or near by (e.g. Puerto Varas). Two of the remaining firms have their general offices in Santiago and two small firms were located in the IXth Region. The Chilean sample comprises a balanced mix of three small firms, three large firms, and two subsidiaries of a multinational corporation. The large firms and one subsidiary, have full integration of their value chain activities. The remaining subsidiary is a large food supplier to the industry (fish feeding). Small companies are local re-processors (smokers), which also have sales activities using a niche market approach, for example selling their products to specialised small restaurant-retailers, up-market supermarket in Chile or selected customers in the USA.

Small and medium size companies in Scotland are larger in terms of number of full-time employees, compared to their Chilean counterparts, which mainly correspond to micro-companies having less than 10 employees. The sample which comprised Chilean small companies are not vertically integrated and they are mainly involved in the last aspects of the value chain activities of the industry (re-processing and sales activities). This implies that there may be certain structural differences between Scottish and Chilean small companies. This may also imply different economic rationales to their activities and a different approach to the trade association within the country. The sample also comprised two trade associations in Scotland, one located in the Shetland Isles and the other located in the central belt of Scotland. Each trade association has different objectives and specific generic marketing for their associated companies, which includes small, large and multinational firms. The case of Chile is different. There is only one trade association and it mainly comprises large companies and subsidiaries of

---

1 This includes the participation of thirteen SMEs, which for this research are those firms with less than 250 employees
multinational corporations. Small firms do not have representation in the Chilean trade association.

To sum up, the sample comprised a fairly balanced mix of small and large firms, as well as subsidiaries of multinational corporations and trade associations in the two countries under study. There is also a balance of firms participating in the different aspects of the industry’s value chain activities. The sample of companies also reflects the international tendency towards full integration among activities, aiming to achieve better economies of scale.

**Interviews in Scotland and Shetland**

Table 1 presents the summary of the interviews conducted in Scotland (Central belt and Northwest) and the Shetland Isles. This is done by grouping the main topics, which cover the research objectives related to the development of inter-firm cooperation in marketing activities. The major issues for discussion are: (1) Geographical co-location; (2) Social networking, including informal relationships and trust; (3) Inter-firm cooperation; (4) Foreign ownership

The results show that all the companies/organisations do not consider ‘close proximity’ as important for the development of inter-firm cooperation in marketing activities. Indeed S3 added, “geography is not important for marketing relationships, but it is for collaboration in the production process…the Internet has changed the rules of geography”. Another company (S2) stated “distance is quite healthy for the development of long term inter firm co-operation in marketing…For this industry, geography is important from the production point of view, but not from the marketing point of view…”. According to the results of these interviews, it seems that ‘close proximity’ is not the main element that facilitates the development of ‘active marketing externalities’ and inter-firm co-operation in marketing. Apart from that, the use of electronic means for communication and the Internet make it easier to contact people everywhere; facilitating cooperation with people located anywhere.

According to the interviews (11 out of 12), ‘informal relationships’ are important for the development of inter-firm co-operation in marketing. Apart from informal relationships, trust, commitment and other social elements are seen by 7 companies (out of 12) as important factors that help with the development of joint marketing activities. “Development of trust, confidence and commitment: Understanding of each other with professionalism are important issues for long term inter-firm co-operation in marketing” (interview with S2). On the other hand, 8 out of 12 companies believe that competition is stronger than co-operation in this particular industry. These companies do not want to share their marketing strategies or work together in collaborative arrangements because of the ‘free rider problem’. “There is some general collaboration, but each company has its own interests, strategies and markets” (interview with TSh1). Other companies are seen as competitors: no collaborative arrangements / no Joint marketing activities.

Although the interviews were conducted in the same country, the study involved two different regions: mainland Scotland and Shetland Isles, which represent two independent sub-cultures, as Shetland has stronger influences from Norway and they see themselves as ‘just different’ from the rest of the country. At the same time the issues of urban/rural areas may influence the cooperative process, as collective and individualistic behaviour seems to differ according to specific locations within a country. These issues are in agreement with Acs (2002) and Steyaert and Katz (2004) implying that not only the study of particular countries are important in the issues related to cooperative behaviour, but also the study of firms within specific regions, cities and embedded communities. Furthermore, although the network developed by each
entrepreneur is ‘unique’ to individuals, based on Birley et al. (1991) and in the exploratory evidence presented in this research, it is possible to suggest that entrepreneurs in different communities within and between countries may exhibit different networking styles. This also implies the use of these networks in different intensities and with different levels of sharing information.

It is interesting to note that most of the companies do not rely on the trade association for the development of marketing activities. Furthermore, in the case of S2, S4 and Sh3 the direct influences of the owner / Managing Director seem to be key issues in the development of co-operative marketing strategies. Moreover, they strongly believe in inter-firm co-operation as an important and an integral part of the success of their business. Thus, the ‘entrepreneurial positive spirit of co-operation’ seems to be an important factor in the development of ‘active joint marketing activities’, more than just geographical co-location. Apart from that, these three companies agree that ‘trust’, ‘commitment’, and other ‘social elements’ are important for inter-firm co-operation in marketing. Indeed, the ‘relational mix’ (Van Dijk and Sverrisson, 2003) and the issues of ‘social topography’ (Lechner and Dowling, 2003), seem to be vital for collaboration in marketing.

**Interviews in Chile**

Table 2 presents the summary of the exploratory interviews conducted in Chile (Santiago and southern Chile).

Insert table 2 about here

The results show that the vast majority of companies/organisations (9 out of 10) consider ‘close proximity’ as not really important / not a key issue for the development of joint marketing activities among companies. For example, Ch2 stated that co-location (close proximity) is not the key issue for inter-firm cooperation in marketing. However, the synergies among different industries and companies are seen as important for the creation of joint efforts: “geography helps to create the right environment for informal relationships in embedded local communities and regions, but is not the main factor for building inter-firm cooperation in marketing…” (General Manager of Ch2). Accordingly, co-location is seen as useful for sharing general ideas with other people, rather than for sharing strategic information (CEO of Ch6).

According to the evidence, it seems that ‘close proximity’ is not the main element that facilitates the development of ‘active marketing externalities’ and inter-firm co-operation in marketing. However, in the case of micro-enterprises with resource constraints (case of Ch8) there seems to be a different situation: “close geographical proximity with other companies is useful for making more informal contacts with people from other companies…” This means that the resource capability, company size and structure may play a key role for the usefulness of location in creating ‘active marketing externalities’.

According to the interviews (8 out of 10), informal relationships, trust, commitment and other social elements are seen, more than close proximity – co-location, important for the development of inter-firm co-operation in marketing. However, as the manager of Ch2 stated “geography helps to create the right environment for informal relationships in embedded local communities and regions”. Nevertheless, according to the companies, having informal relationships does not mean that they share marketing information, because competition is very strong in the industry as well as the influence of an individualistic business culture in the Chilean country.
Related to the previous issues, 7 out of 10 companies located in Chile believe that competition is stronger than co-operation in this particular industry. Evidently, these companies do not want to share their marketing strategies or work together in collaborative arrangements with competitors because of the competitive issues (same customers, similar export markets, etc). At the same time, companies find it easier to have collaborative marketing efforts with other complementary industries or with customers and suppliers (independent of their geographical location) rather than with direct competitors.

According to these opinions from the interviews, it seems that competition is stronger than co-operation, and the cultural ‘individualistic’ business behaviour is confirmed as an important factor that influences this. Apart from that, it seems that inter-firm cooperation in marketing is easier at the early stages of the industry. Later in the industry development, where companies’ increase in size and stronger competitors become a factor, chasing similar markets and customers contributes to the creation of individualistic - competitive strategies (not collaborative as before).

The trade association is the only one that stated it had collaborated in marketing activities with competitors. This is done at an international level and induces active cooperation with other trade associations in the USA through ‘Salmon of the Americas’, which comprises producers from Canada, the USA and Chile working together in a generic marketing campaign in the USA market. This issue confirms again, to an extent, that geographical co-location is not the key issue when it comes to marketing collaboration. Furthermore, companies and organisations may have joint marketing activities if they have aligned their common strategic objectives, independent of location.

**Questionnaire Research Findings**

According to the respondents of the questionnaire, the main sources of capital in the company ownership are regional (58.5%) and national (22.6%). Only 6 companies (11.3%) declared to have some foreign ownership and 4 companies (7.5%) have a mix of them. Besides, the vast majority of companies (88.7%) are not part of any multinational conglomerate and only 6 companies (11.3%) declared to be a subsidiary of a MNE. This means that the sample comprises a robust number of local embedded companies, with more than 80% comprising local capitals (regional or national).

**Geographical location**

The respondent companies are located in Scotland (56.6%) and Chile (43.4%). The majority of Scottish companies (63%) are located in the northwest area, followed by Western Isles (26%) and Shetland (10%). In the case of Chile, most of the companies are located in Puerto Montt (52%), followed by Chiloé (17%), and with the remaining companies located in a wider area of southern Chile. This suggests a high density of companies located in specific areas, forming an industrial district or regional cluster in each country, as discussed in the literature section. It is important to state that the northwest of Scotland represents a geographical area which comprises cities (like Inverness), but also rural-remote areas (such as Lochinver in Sutherland, among others). In contrast, the city of Puerto Montt represents the fastest growing urban area in southern Chile. This differentiation has implications when analysing urban-rural firm’s behaviour differences (Ritsila, 1999; Acs, 2002; Steyaer and Katz, 2004). It also important to note that there is no single definition of ‘clusters’, its boundary areas or dimension of its territorial space. Close proximity in this industry sector may have a different meaning than ‘close proximity’ in other industries, for example the high-technology sector. As such the regions and geographical areas explained in this research are only applicable to the specific industry under analysis.

The chi-square test was performed with the aim of detecting any significant differences between countries. A significant difference between countries was found for the sources of capital...
where Scotland was more inclined to have companies with regional capital, in comparison with Chile where the number of respondent companies with regional, national and foreign capital are more alike. These results support the importance of foreign capital in the Chilean industry. These results may also suggest that issues of reinvestment policies from foreign companies (MNEs) at national and regional levels may be seen as key elements for the long-term development, growth and longevity of this industry in Chile. Furthermore, the relationship between subsidiaries and embedded local firms should be a key issue in the development, sustainability and balance between cooperation and competition in the industry.

**Competitor's characteristics**

Nearly half of the respondent companies (45.3%) considered that their major competitors are located in the same local area, compared with 30.2% who reported that their competitors were located worldwide. This suggests that there is strong competition among companies that are geographically co-located. At the same time, global competition from companies located in other countries still remains an important issue in an industry in which the trend is global scale operations for achieving better economies of scales, as discussed in the industry chapter.

The size of the main competitors reveals that the major competitive threats are perceived to come from an undifferentiated mix of small, larger and MNEs subsidiaries (52.8%). However, it is important to note that the larger firms with national capitals are also considered by 21% of the respondents as key competitors. This implies that small companies are seeing larger companies, which usually have important economies of scale, as their main competition.

**Benefits based on location**

This section discusses the results of a key question that this research investigates: that is, whether geographical co-location is a determining factor in inter-firm cooperation in marketing?

Overall, enhanced reputation or credibility of the firms and products, buying intermediate goods from other firms, providing access to better specialised suppliers, and finding new customers in new markets, are the main externalities that the respondent’s firms found more useful as benefits of geographical co-location. The ‘enhance reputation’ and the ‘finding new customers in new markets’ variables, correspond to a ‘passive marketing externality’ that certain geographical places may create. The ‘buying intermediate goods’ and ‘access to better specialised suppliers’ are traditional economic externalities. These results confirm previous research in economic geography which specifies the importance of production related benefits that industrial districts and regional clusters can bring (see for example Marshall, 1919; Weber 1929; Becattini, 1992; Porter, 1998; Bellandi, 2001; Van Den Denger et al., 2001). Inter-firm transactions and the creation of economies of scale are the main benefits derived from geographical co-location. However, this research also shows that active marketing externalities are not the main benefits that simple geographical co-location brings to companies. As a result, other factors are needed to stimulate marketing cooperation, as it may be the case of social networks.

Chilean firms seem to appreciate greater benefits of agglomeration, with the exception of ‘access to a skilled labour’, ‘greater international market demand’ and ‘enhance reputation or credibility of firms and products’. This may be because agglomeration is more obvious in the specific urban location of the industry in Chile, or it may be the case that there is a better perception of the benefits of the cluster.

Significant differences were found between Scotland and Chile in the following factors: ‘selling intermediate goods to other firms’ (p=0.002), ‘access to new technology’ (p=0.023), ‘greater market knowledge’ (p=0.054), ‘greater innovation/new product development’ (p=0.004) and ‘inter-firm referrals to your firm’ (p=0.046). Chilean companies were more likely to rank these factors as useful or extremely useful. Similarly, significant differences were found in ‘enhance reputation’ (p=0.083), with Scottish companies being the ones that perceived it as more useful.
This issue may be seen to be related to the country of origin effect in agro-food and aquaculture products (see Tootelian and Segale, 2004). Further work is needed to see its specific effects in this industry.

The analysis of traditional externalities shows that ‘buying intermediate goods from other firms’ and ‘access to specialised suppliers’ ranked in the first perceived benefits from geographical co-location. These results differ partially from Brown and Bell’s (2001) study, conducted in an electronics cluster in New Zealand, where access to labour pool and access to new technology ranked as the first preferences. This may suggest that the traditional benefits that geographical co-location brings are industry dependent. For example, ‘traditional agri-business’ industries may look for different benefits in their location search, compared to technological based industries. In this specific case, it can be seen that intermediate buyer-seller transactions (Schmitz, 1995; Kalafatis, 2002; Sanzo et al., 2003; Baxter and Matear, 2004) are crucial in this industry cluster.

‘Enhanced reputation or credibility of the firms and products’ and ‘finding new customers in new markets’ were the main marketing externalities that respondents perceived as a benefit from geographical co-location. Scotland presents a higher proportion of companies considering ‘enhance reputation or credibility’ to be a perceived benefit of geographical co-location. Significant differences were found in this variable among dissimilar company sizes (p=0.072). Smaller companies with less than 50 employees, found that co-location in specific territories enhance their reputation and credibility of their firms.

These results suggest that certain geographical areas in the agri-business/food sector are important for enhancing reputation and credibility of their products, especially for new and small company entrants. This passive marketing externality factor, may be seen to be linked to the literature on country of origin effects in food products (Gold and Ward, 1994; Tootelian and Segale, 2004; Felzensztein et al., 2004; Felzensztein and Dinnie, 2005), where specific regions and precise locations within regions may enhance reputation, serving as a point of differentiation and adding value to the product (if the country has a positive image, of course).

Although the magnitude of the significant differences is small, Chilean firms seem to find more benefits in geographical co-location, than do the Scottish firms. These results may suggest that Chilean companies perceive, or use more, the benefits that clusters and industrial districts bring. This also may imply more communication and direct transactions between Chilean companies located in specific urban locations, as the case of Puerto Montt, where most of the producing (e.g. processing plants) and supplying firms (e.g. feeding and smolt suppliers) of this industry are located. Besides, significant differences in the variable ‘inter-clusters referrals to your firm’ suggests an active marketing externality from Chilean companies which, according to these results, tends to refer customer to other firms if they are unable to assist customers directly.

**Joint marketing activities**

Joint marketing activities represent the clearest form of active marketing externalities that require the active involvement of managers. Although the literature does not provide a detailed definition of ‘marketing cooperation’ and ‘joint marketing activities’, these can be seen as a group of firms using combined resources in a contractual (formal) or non-contractual (informal) basis to cooperate in the marketing mix and sales at local and international levels. They also involve generic (secondary branding/quality assurances at industry levels) and marketing activities particular to individual organisations collaborating with their pairs. Aiming to differentiate these two main economic categories/ drives for marketing activities, marketing activities are divided into ‘joint marketing with other firms’ and ‘joint marketing with the trade organisation’.

\[ \chi^2 = 14.390 \]
This sub-section shows the results related to marketing cooperation among firms, which does not refer to generic marketing. Specifically, it refers to activities between firms involved in the same industry, and which can be conducted with direct competitors or with vertically integrated units (e.g., suppliers and buyers).

Joint participation in trade fairs, joint market information research and joint marketing delegations, are the main marketing activities in which companies collaborate with other firms. This may suggest a low intensity in this specific kind of cooperation among firms. Significant differences between countries were found in joint marketing delegations (p=0.088) and joint new product development (p=0.019), with Chilean companies being the ones that tend to perceive more usefulness of geographical co-location for these kind of cooperation in marketing. This may be because agglomeration is more obvious in the specific urban location of the industry in Chile, or it may be the case that there is a better perception of the benefits of the cluster.

**Firm’s actual cooperation in marketing and main levels of collaboration**

Nearly 25% of the respondent companies expect to engage in some inter-firm collaboration in marketing activities in the near future. Other companies have already developed some inter-firm collaboration (20.8%) or do not collaborate and have never thought about it (20.8%). The main reasons for not collaborating in marketing activities are that ‘industry competition is stronger than collaboration’ (20.8%), or ‘the company just did not try it’ (15.1%). Significant differences among countries were not found. However, more Scottish companies (9), compared to their Chilean counterparts (2), stated that they had already developed some inter-firm cooperation in marketing. Smaller companies, with less than 50 employees, are also more likely to have already developed this marketing collaboration. This may suggest that small Scottish companies may be more prepared, or willing, to engage in inter-firm cooperation in marketing, compared to Chilean firms.

According to the respondents that developed some marketing cooperation with other firms, the main areas for collaboration have been: joint sales to customers (22.6%) and joint distribution channels (20.8%). It is interesting to note that ‘joint sales’ and ‘joint distribution channels’, were not among the most perceived active marketing externalities that firms noticed as a benefit from geographical co-location. The question that naturally arises is therefore: What is the role of geographical co-location in developing this cooperation in marketing activities? In other words, is co-location a key issue for these activities? According to the respondent companies that have already developed some inter-firm cooperation in marketing, this is done with firms located in the same district and with firms located outside the local area.

Significant differences between countries were found in the cooperation with firms located outside the district (p=0.007), where Scotland seems to prefer cooperation with companies outside their region. This may imply fierce competition with companies located in close proximity in Scotland.

Cooperation occurs mainly with suppliers and buyers. These results suggest that it is easier and more feasible to establish inter-firm cooperation in marketing with buyers and suppliers than with more direct competitors. This also may suggest that competition between companies located in the same stage of the value chain activities, is fierce in this industry. Clearly, buyer-selling relationships are the key components for the development of deeper collaboration and marketing understanding. Significant statistical differences between countries were found in the variable ‘mainly with suppliers’ (p=0.037), with Scottish companies being more likely to conduct marketing cooperation with suppliers.

It is interesting to note that ‘marketing cooperation with the trade association’ did not rank as highly as marketing cooperation with either suppliers or buyers. It is important to remember that
joint marketing activities with trade associations and with other firms (like suppliers and buyers) are different aspects of the value chain activities. Therefore, they are different economic drivers and represent a diverse rationale for cooperation. Probably, this may suggest that buyer-seller relationships are important as they impact on the cost structure of companies. For example, buying raw material and direct relationship with distributors (especially supermarkets) may be the key activities that impact most on the cost of production of firms in this industry. More work is needed in the area of supply chain management to provide a more complete insight about the relative impact of buyers and suppliers in the marketing cooperation activities of the salmon farming industry.

Market research / intelligence, sharing distribution channels and international advertising / promotion were found to be strongly cooperative activities with other firms. This may suggest that general cost reduction and increasing customer base activities may be important elements to consider when companies choose collaborating among them. Clearly, these activities help firms to reduce and achieve economies of scale in marketing expenditure when targeting customers in the similar markets. This may also have implications for generic marketing activities in the industry.

The influence of social networking

The findings of this study suggest that the contribution of geographical co-location, for the development of collaborative marketing activities, is limited within this specific industry. If co-location is not the only explanatory factor in inter-firm cooperation in marketing, the question remains as into the role of social networking in this process.

The majority of respondent companies (62.3%) claimed to discuss marketing activities with people from other firms/organisations. A much smaller proportion (13.2%) did not discuss marketing activities, but they expected to in the near future. Similarly, 13.2% of the companies have no intention to talk about marketing with other firms. Chi-square analysis shows significant differences between countries on the variable ‘no, but it is expected in the near future’ (p=0.015): Chilean companies (13.2%) were the only ones to state this option.

These results suggest that there is a group of companies that are discussing marketing with other firms in their industry sector. However, it is also important to recognise that a large minority (37.8%) of companies do not discuss marketing issues with their counterparts. Companies recognise the difficulties of discussing strategic topics, such as marketing collaboration with competitors. A key concern is that of strong competition, individualistic business behaviour and the fact that marketing is considered a strategic topic among competing firms located in the same industry (Dahl and Padersen, 2003). Das (1998) identified strong competition as an inevitable phenomenon of industrial clustering.

Companies that stated that they discuss marketing activities with other firms expressed that this discussion is mainly at ‘informal level and social level’ and at ‘formal and informal levels on a one-to-one basis’. Using Coviello et al.’s (2001) five aspects of marketing practice, this suggests that the formality of exchange is related to the ‘interaction’ and ‘network’ marketing aspects. The use of face-to-face interaction between individuals, as well as communication across organisations, where managers commit resources to develop their firm’s position in a network of various firm-level relationships, are important within the industry.

It is interesting to note that the formality of marketing discussion is different if discussions take place between firms, rather than with the trade association. Discussion about marketing with the trade association is mainly done, or expected to be done, at a formal business level. Communication at a formal level can be personalised via the use of information technologies, but still remains formal. Taking into consideration Coviello et al.’s (2001, 2003) research, marketing practices with trade associations tend to be more focused on ‘transaction’ and
'database' marketing practices. In other words, these are transaction relationships with the aim of capturing more buyers by managing the elements of the marketing mix. The use of database technologies in creating firms' relationships with the trade organisations and customers is a key feature of these interactions. Significant differences between countries were not found with regards to the formality of marketing discussion.

Social expectations of managers when meeting with their counterparts in other companies are to maintain 'some future personalised contact' (74%) and a 'one-to-one personal contact' (63%). This suggests that managers value their personal contact among them and that personal relationships are something expected when dealing in business. At the same time, as suggested by Chen et al. (1998), Hawett and Bearden (2001), Hoang and Antoncic (2003), these personal interaction may have an effect in the cooperative behaviour of firms. These social elements have also been found to be important in previous research (Morgan and Hunt, 1994; Coulter and Coulter, 2003; Coote et al., 2003), being a critical element of competitive success in firms (Wolfe, 2003). This confirms that they are a key issue when analysing interaction and communication processes between firm.

The most important social expectation from the partner, if the firm was to be involved in inter-firm collaboration in marketing activities, are 'frankness' (96%), 'competence' (92%) and 'knowledge' (90%). These results can be related to Porter's (1998) concept of 'social glue', which includes the building and expectation of trust among companies participating in the same industry. The building of a common knowledge base and frankness can also be assumed to be further aspects of the social element, part of the concept of 'trust' previously found in past research (Morgan and Hunt, 1994; McKelvey et al., 2002; Coutler and Coutler, 2003), helping the development of relational ties, which are special for inter-firm interactions.

The results presented in this section showed that the social networking elements, like 'trust' (Morgan and Hunt 1994; Hoang and Antoncic, 2003; Coote et al., 2003) and 'respect reciprocity' (Coutler and Coulter, 2003) play a key role in inter-firm cooperation in marketing. Clearly, elements of networking are important for inter-firm cooperation. The empirical evidence presented in this research suggests that the concept of 'proximity' (Amin and Cohendet, 1999; Gertler, 2001) needs to be considered as being not only spatial but also social, assuming organizational and relational forms in which firms and entrepreneurs relate to each other.

Companies also recognised the difficulties of discussing strategic topics, as marketing collaboration with competitors. The use of face-to-face interaction between individuals is a key element in the discussion of strategic topics among managers. Respondent companies also specified the importance of informal relationships in the development of inter-firm co-operation. Informal contacts play a key role for collaborative marketing activities, acting as channels of knowledge flows (Dahl and Pedersen, 2003; Soh, 2003). In addition, the results also showed that informal meetings and ‘weak ties’ (Granovetter, 1973) are useful for sharing marketing information among managing directors.

**Conclusions and main contribution**

The first proposition suggested that social networking would have a greater influence than geographic proximity in facilitating inter-firm cooperation in marketing activities. Both the qualitative and quantitative results suggested that ‘close proximity’ is not a key issue *per se* for the development of inter-firm cooperation in marketing. Co-location, however, may be someway beneficial for the development of ‘social glue’ (Porter, 1998). Geographical co-location was also perceived to be useful in sharing general knowledge with other individuals within the industry, but not in sharing strategic marketing information.
The relationship between co-location and social networking is complex and the interaction between both elements often difficult to separate. For example, co-location assists in the social elements of networking which, in turn, help build strategic collaborative arrangements, for example in marketing, which contribute to enhanced performance.

The qualitative and quantitative results also emphasized the use of electronic communication as a mechanism to facilitate inter-firm collaboration with partners irrespective of location and confirm previous studies that argue that information and communication technologies are leading to the ‘death of distance’ (Hoffman and Novak, 1996; Cairncrooss, 1997; Kotlin, 2002; Ganesan et al., 2004; Buckley and Ghauri, 2004; Naudé and Holland, 2004). The empirical evidence also found e-mail to be an effective means of transmitting technical knowledge including marketing information, confirming the results of Nonaka et al. (2000) and Ganesan et al. (2004). This finding suggests that future cluster theory needs to place greater emphasis on the role of electronic communications in transmitting technical content and the ways in which this affects the inter-firm cooperation process. Consequently, individual firms operating in clusters and future research investigating clusters both need to consider relational closeness (Gertler, 1995; Ghemawat, 2000) as well as the strength of ties in industrial districts (Ganesan et al., 2004).

In short, the qualitative and quantitative evidence suggests that proposition one may be accepted. However, more empirical work should be done to confirm that social networking has a greater influence than geographic proximity in facilitating inter-firm cooperation in marketing activities.

Proposition two suggested that the social elements of networking are positively correlated to the development of inter-firm cooperation in marketing activities. Clearly, the qualitative and quantitative results suggested that the elements of networking are important for inter-firm cooperation. Moreover, ‘communication and social networks’ (Szarka, 1990; Johannisson, 1995; Mackinnon et al., 2004) and ‘extra local networks’ (Mackinnon et al., 2004) were found to be relevant in providing marketing information to firms in the industry cluster studied.

Among the social elements of networking, the importance of communication and trust (Coote et al., 2003) among partners and managing directors were highlighted throughout the results chapters. This also confirms Morgan and Hunt’s (1994) research in which communication and trust were found to be positively correlated, promoting the quality and intensity of strategic communication among partners.

The qualitative and quantitative evidence suggests that proposition two should be accepted: the social elements of networking are positively correlated to the development of inter-firm cooperation in marketing activities.

The qualitative and quantitative results provided some insight into the role of country specificity and cultural influences in the development of collaborative marketing strategies. Respondents in both Scotland and Chile expressed the view that competition was stronger than co-operation and that this was influenced by a cultural tendency towards ‘individualistic’ business behaviour. The threat of opportunistic ‘free riders’ within competitive environments (Bucklin and Sengupta, 1993; Gulati, 1999; Ahuja, 2000) is a key factor that undermines the development of collaborative marketing arrangements. The exploratory evidence showed that inter-firm marketing cooperation is easier in the early stages of an industry, where a more cohesive generic strategy is needed. Moreover, according to the qualitative results, company size affects the need for this type of co-operation. For example, in Scotland, small innovative companies appear to be leading the process of marketing collaboration at horizontal and vertical levels. In later stages of industry development, when the industry has matured, companies have increased in size and there is stronger competition for similar markets and customers, the creation of
individualistic competitive strategies becomes the norm.

Inter-firm marketing cooperation is not only influenced by firm size and a country’s general business culture, the special characteristics of specific regions within countries also affects a firm’s strategic behaviour. In this study, according to the qualitative analysis, firms located in the Shetland Isles appeared to manifest a more cohesive – collectivistic type of behaviour, which may reflect the ‘local industrial atmosphere’ (Marshall, 1919). In turn, this may create a special environment within a country where there is a ‘complex mix of co-operation and competition’ (Becattini, 1989; Brusco, 1990; Porter, 1998; Feldman, 1999; Dahl and Padersen, 2003). The generic marketing strategies at industry levels with the cooperation of the local Trade Association may be a function of this type of environment.

The qualitative results also suggested that, although the network developed by each entrepreneur was unique to a particular individual (Birley et al., 1991), the cultural differences at both country and regional levels may affect networking style with regard to the necessity, intensity and levels of collaborative marketing. Similarly, the concept of embeddedness is of particular importance, emphasising the extra-firm dimension of networks (Granovetter, 1985; Morgan, 1997) including, as this research shows, contacts with external institutions such as trade associations, developmental agencies and local authorities.

Collectively, the qualitative and quantitative results demonstrated that there are some differences among countries and regions. However, there is still little support for proposition three that countries and regions in which there is a high level of social collectivism will demonstrate higher levels of inter-firm co-operation in marketing activities.

**Main contribution of this research**

This study contributes to the literature and to theoretical understanding by integrating the two concepts of geographical proximity and social networking, as facilitators for inter-firm co-operation in marketing activities. The study also explored in depth whether levels of inter-firm cooperation differed between countries with distinctly different levels of social collectivism, issues that were not explicitly included in previous studies (see for example Brown and Bell, 2001; Mingunuzzi and Passaro, 2001; Varamaki and Vesalainen, 2003).

The evidence discussed in this paper supports much recent research on the relative strategic importance of social capital among firm’s relationships (Nahapiet and Goshal, 1998; Kale et al., 2000 and Adler and Knowl, 2002). The contemporary concepts of ‘relational mix’ (Lechner and Dowling, 2003) and ‘social topography’ (Van Dijk and Sverrisson, 2003) are seen to be key issues of consideration when investigating queries related to inter-firm relationships and geographical co-location effects, where social networking is a key factor among them.

This research also attempted to incorporate a fuller understanding of the roles of trade associations, part of Porter’s (1998) diamond. However, despite the extensive literature on the role of business associations, there has been little research into their potential contribution to the competitiveness of small firms, and none related to their competitiveness in marketing cooperation. The results of this paper support Bennett’s (1998) research concluding that it is important to differentiate associations by type of members because of their dissimilar objectives, which also occurred in marketing when comparing smaller and larger firms. This may also be related to the public policy sector, which is part of a wider concept of local synergy, consisting of several forms of cooperation (Staber, 1997). This includes, as the qualitative results showed, the relevance of social organisations, municipalities and educational institutions, supporting the ‘local atmosphere’ (Marshall, 1920) for cooperation among smaller firms. In addition, these support previous related research (Minguizzi and Passaro, 2001; Requier-Desjardins et al., 2003).
The results of this study have also suggested that cooperation is not an element *per se* in every organisation and that the effect of the country as well as the local culture of regions may play a crucial role in the trust and cooperative process. These results support Vahaverbeke (2001), but more work needs to be done to confirm the effect of geographical co-location in inter-firm cooperation in marketing activities.

**Key References**


Becattini, G. (1989) "Sectors and/or districts: some remarks on the conceptual foundations of industrial economics", in Goodman, Bamford, and Saynor (Eds.), *Small Firms and Industrial Districts in Italy*, ILO


Brown, P. and Bell, J. (2001) "Industrial clusters and small firms internationalisation", in Taggart, J.; Berry, M.; McDermontt, M. (Eds) *Multinational in a New Era*, pp 10-26


Dahl, M. and Pedersen, Ch. (2003) “Knowledge flows though informal contacts in industrial clusters: myth or realities”, *Danish Research Unit for Industrial Dynamics*, working paper No. 03-01


### Table 1: Summary of exploratory interviews in Scotland and Shetland isles

<table>
<thead>
<tr>
<th>Co. / Org.</th>
<th>Close proximity is not important for joint marketing activities</th>
<th>Informal relationships are important for inter-firm co-operation in marketing</th>
<th>Trust, commitment or other social elements are important for inter-firm co-operation</th>
<th>Competition is stronger than co-operation / ‘Free rider problem’</th>
<th>It has some joint marketing activities with competitors</th>
<th>It has other forms of co-operation (not marketing) with other firms</th>
<th>Rely on trade association for marketing activities</th>
<th>Foreign ownership is not relevant for marketing co-operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>N/A</td>
<td>√</td>
<td>N/A</td>
<td>N/A</td>
<td>√</td>
</tr>
<tr>
<td>TS1</td>
<td>√</td>
<td>√</td>
<td>N/A</td>
<td>N/A</td>
<td>√</td>
<td>N/A</td>
<td>N/A</td>
<td>√</td>
</tr>
<tr>
<td>S2</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>S3</td>
<td>√</td>
<td>√</td>
<td>N/A</td>
<td>N/A</td>
<td>√</td>
<td>√</td>
<td>N/A</td>
<td>√</td>
</tr>
<tr>
<td>*S4</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>N/A</td>
<td>√</td>
</tr>
<tr>
<td>**S5</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>N/A</td>
<td>√</td>
</tr>
<tr>
<td>TSh1</td>
<td>√</td>
<td>√</td>
<td>N/A</td>
<td>N/A</td>
<td>√</td>
<td>√</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>*Sh2</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>N/A</td>
<td>N/A</td>
<td>√</td>
</tr>
<tr>
<td>Sh3</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>*Sh4</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>N/A</td>
<td>√</td>
<td>√</td>
<td>N/A</td>
<td>√</td>
</tr>
<tr>
<td>Sh5</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Sh6</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
</tbody>
</table>

T= Trade Association  
S= Company in Scotland  
Sh= Company in Shetland  
N/A= Not applicable  
(*)= Subsidiary of a multinational company (MNE)  
(**)=Large company (more than 250 employees)

### Table 2: Summary of exploratory interviews in Chile

<table>
<thead>
<tr>
<th>Co. / Org.</th>
<th>Close proximity is not important for joint marketing activities</th>
<th>Informal relationships are important for inter-firm co-operation in marketing</th>
<th>Trust, commitment or other social elements are important for inter-firm co-operation</th>
<th>Competition is stronger than co-operation / ‘Free rider problem’</th>
<th>It has some joint marketing activities with competitors</th>
<th>It has other forms of co-operation (not marketing) with other firms</th>
<th>Rely on trade association for marketing activities</th>
<th>Foreign ownership is not relevant for marketing co-operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCh</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>N/A</td>
<td>√</td>
<td>N/A</td>
<td>√</td>
<td>N/A</td>
</tr>
<tr>
<td>**Ch1</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Ch2</td>
<td>√</td>
<td>√</td>
<td>N/A</td>
<td>N/A</td>
<td>√</td>
<td>√</td>
<td>N/A</td>
<td>√</td>
</tr>
<tr>
<td>*Ch3</td>
<td>√</td>
<td>√</td>
<td>N/A</td>
<td>N/A</td>
<td>√</td>
<td>√</td>
<td>N/A</td>
<td>√</td>
</tr>
<tr>
<td>**Ch4</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>*Ch5</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>**Ch6</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Ch7</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>ChN8</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>ChN9</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
</tbody>
</table>

T= Trade Association  
N= Company located outside the main cluster area  
N/A= Not applicable  
(*)= Subsidiary of a multinational company (MNE)  
(**)=Large company (more than 250 employees)