

Comparing firms' associational strategies across sectors and locations: cluster initiatives as meta-organizations

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Abstract

In this paper we argue that cluster initiatives represent a meta-organizational form of organizing inter-organizational relations. As such they should not be studied in isolation but compared to other associational strategies that firms could follow. We focus on one component of associational strategies, firms' membership in business associations, and proposed a way in which strategies could be compared and studied. We find statistically significant differences between the groups with respect to how firms perceive their general business environment, the effectiveness of public governance, the quality of educational and research institutions and the investment behavior of other local firms. Consequently, we argue that independently of the location, the sector or the firm's size, certain perceptions will influence associability.

1. Introduction

The cluster concept has become a popular guideline for regional policies promoting industrial competitiveness and innovation through sectoral specialization and collaboration (Fromhold-Eisebith & Eisebith, 2005). So far, cluster-based policies have offered very mixed results when it comes to both attracting firms and realizing tangible gains from collaboration (Enright 2003; Bathelt 2005; Su & Hung 2009; Feser 2008; Falck, Heblich & Kipar, 2010; Martin & Sunley, 2011; Ebbekink & Lagendijk, 2012). This has risen concerns about the way clusters have been identified, the manner in which cluster organizations have been constructed and cluster strategies developed (Sadler, 2004; Tully & Berkeley, 2004; Peck & McGuinness, 2003; Burfitt & Macneill, 2008; Jungwirth & Mueller, 2010). There remains a considerable uncertainty about the kind of interventions and policy tools that are likely to be effective (Feser, 2008; Burfitt & Macneill, 2008).

In order to address these concerns, scholars have followed two main empirical paths. The first one explores the phenomenon of regional clusters defined as "geographic concentrations of interconnected companies and institutions in a particular field" (Porter, 1998). The second one looks at the characteristics of the initiatives promoting the development of clusters. This paper considers both of the resulting streams of literature ill positioned to answer the issues expressed above. The former, which investigates the inter-firm linkages developed in competitive locations such as the Silicon Valley as a result of time and repeated interactions, offers limited implications for initiatives promoting clusters. The reason is that such initiatives often stimulate competitiveness through the establishment of associations of local firms, which involves a different form of organizing. Yet, the later stream of literature often discusses these associations as an isolated case of public policy rather than one of many forms of organizing inter-organizational relations.

Ahrne and Brunsson (2005) define this particular form of organizational order as meta-organizations. Meta-organizations are a particular case of organizing where organizations arrange their mutual relations in the specific form of a formal organization whose members are other organizations. In this paper we argue that cluster initiatives represent a form of meta-organizing. This implies that they should be studied in a wider context and with respect to other meta-organizational forms. Adopting an organizational perspective has several important implications. First, it studies cluster promotion as an organizational order, which is fundamentally different from the dominant in the field institutional and network paradigms. This allows for a distinction between promoted meta-organized clusters and Porterian clusters, which are organized through institutions (conventions, habits) and networks. Second, it recognizes that there might be interactions between cluster initiatives and other meta-organizations operating at different geographical levels. Third, it provides a theoretical framework for systematic empirical investigation of the organizational elements of cluster promotion. Last, it allows firms to be discussed as members of an organization rather than targets of a policy.

Conceptualizing firms as members focuses the attention on the fact that firms are in fact not unproblematic agents, placed "in a chain of causality in an economic system" (Taylor & Asheim, 2001). Instead, they are heterogeneous actors who can decide to join or not a meta-organization and how to behave as a member therein. We believe that understanding better these dynamics will shed light on the factors that make cluster initiatives successful in attracting firms and generating inter-organizational interactions. Therefore, in this study we discuss cluster promotion through a micro-theoretical perspective focusing on individual firms and their membership in meta-organizations. We

consider membership to be a strategic choice and joining cluster initiatives to be one of several possible associational alternatives. We define the cluster alternative as a meta-organization, which pursue relational outcomes and have regional and sectoral focus. Our goal is to compare membership in cluster initiatives to membership in other types of meta-organizations, which operate at different geographical and sectoral scales. Our main argument is that firms in the same location and sector could follow different “associational strategies” when it comes to which and how many meta-organizations they join. We believe these strategies will reflect the heterogeneity of individual firms not only in terms of strategic needs, but also with respect to perceptions about the location where the firm is situated. Consequently, we investigate empirically if there is a statistically significant difference in perceptions between non-members, firms participating in cluster initiatives and firms members in other meta-organizations.

Our main motivation to undertake this study was to strengthen the theoretical and policy relevance of cluster promotion research. As such we have focused specifically on business strategy and factors that are relevant to the competitiveness of a region. The data we analyze here was collected through a survey in three different countries in Europe (Spain, Portugal and Romania). More than a thousand companies belonging to different industries participated in our study. We expect to find differences between members and non-members in terms of perceptions about factors such as the quality of input resources, the level of competition, the quality of local suppliers, the investment behavior of other local firms, the quality of educational and research institutions.

The paper is structure as follows. First, we define and discuss cluster policy through a meta-organizational theoretical framework. We then conceptualize firm’s membership in cluster initiatives as a strategic choice, which we compare to other alternatives. Next, we develop several hypotheses as to how members in different meta-organizations and non-members might differ. Finally, we test these hypotheses and discuss the results.

2. Meta-organizing inter-firm relations

Meta-organizations are formal organizations whose members are not individuals but other formal organizations such as firms, states, and universities. Examples of meta-organizations are a corporation and its subsidiaries, an organization-of-states like the United Nations or an association similar to the Business Association for the Stockholm Royal Seaport.

Overall, meta-organizations are characterized by the same elements as individual-based organizations. They have members, hierarchy, autonomy and a constitution. Meta-organizations are hierarchical in the sense that they have an authoritative center, often represented by a special organizational unit, a board or simply a mechanism for decision-making. This authoritative center can decide upon and even enforce compliance with rules with regard to their members. The rights and obligation of the members, on the other hand, are specified in the constitution. Depending on the nature of the meta-organization the constitution could for example be referred to as article of association or treaty. Also, meta-organizations have a certain degree of autonomy, which allows the authority center to manage the organizational resources and act (Ahrne & Brunsson, 2008).

However, the fundamental differences between individual-based organizations and meta-organizations are their members. Attracting and retaining members is essential for the survival of any organization. At the same time, while in individual-based organizations

it has no major importance exactly who the members are, meta-organizations are dependent on the participation decision of specific members. Yet, membership in a meta-organization is a voluntary choice and members can leave at any time. Also, members have a considerable autonomy and preserve their identity as independent organizations. Hence, the survival and the identity of the meta-organization depend on the identity of the members and on their dependence on each other. As such members are not only a fundamental assets but represent also a major source of constraints and conflict for their meta-organization (Ahrne & Brunsson, 2005).

We consider business associations to be a particular kind of meta-organizations. Although other public or private organizations such as universities, research centers and public agencies can also join business associations, their members are predominantly firms. Association participates in public relations activities such as advertising, lobbying, education, but they also promote collaboration among members and provide services such as networking, conferences or educational courses. Also, business associations might operate at different geographical and industrial scales. There are, for example, regional chambers of commerce, national industrial associations, and international trade associations. Finally, business associations can be defined as symmetric bureaucratic networks, which are formalized in exchange or associational contractual agreement (Grandori & Soda, 1995). In their core business associations are collective bodies that acts as an intermediary between individual business action and state action (Bennett, 1998c).

Some business association which operate at a regional level and have industry focus, have been called cluster organization or cluster initiative (Sölvell, Lindqvist & Ketels, 2003). Such initiatives, often drawing on the notion of regional clusters (Borrás & Tzagdis, 2008), are based on the assumption that interactions between firms in the same location generates competitive advantage (Saxenian, 1996; Storper, 1997).

2.1 Cluster initiatives as meta-organizations

The concept of regional clusters has been discussed in literature in two very different ways. The first stream of literature theorizes clusters as a particular business location pattern. In this perspective, the cluster concept recognizes that tight connections can bind certain firms and industries together and this makes it meaningful to study groups of interconnected activities (Feser & Bergman, 2000, cited in Perry, 2007). In this logic, clusters offer a mode of inquiry and a way to discuss the inter-firm relations that occur in a given location. Such relations are often analyzed through the prism of network or institutional theories. This stream of research explores the importance of personal, informal and extra-firm networks and the development of soft (social norms and conventions in which people interact) institutions (Cooke & Morgan, 1998) for the development of “hot spots” (Pouder & John, 1996) or fast-growing and innovative geographical clusters of competing firms.

The second stream is anchored theoretically in political economy and discusses clusters from a strategic perspective as a tool in regional economic development. The main research focus is on the structure of the inter-organizational relations which promote competitiveness in a given location, the importance of hard (government agencies, research and education organizations) institutions (Cooke & Morgan, 1998) and the role of the public sector in the promotion of hot spots. Specific importance is given to cooperation up and down the value chain and collaboration with local competitors and research institutes.

We argue that those two streams of literature often interpret the cluster concept in different ways. The first stream of literature interprets clusters as a geographical concentration of firms and looks into the nature of the inter-organizational relations that have been established therein. Contributions often describe these relations as networks and institutions. The second one discusses clusters as a way of organizing a location in order to increase the competitiveness of firms and looks into how the related organizations can work together. Perry (2007) describes those two interpretations as physical and functional clustering. We argue that the respective organizing of inter-firm relations is in fact very different.

Institutions and networks both describe existing orders, which merely have happened rather than having been decided upon. Berger and Luckmann (1966) describe them as the result of the routinization and habituation of interaction. Institutions emerge as the organization gradually fades away and is taken for granted (Selznick, 1957, cited in Ahrne & Brunsson 2011). Networks, on the other hand, arise spontaneously when “individuals engage in reciprocal, preferential, mutually supportive actions” (Powell, 2003, pp. 303).

Cluster-based policies promote organizing that is neither taken for granted nor spontaneous. They are “coordinated set of measures, in whatever constellation and style of implementation, that supports the development of a regional industrial agglomeration towards ideal features of a cluster in terms of a specialized, competitive, collaborative and collectively innovative set of sector-related industries, research/education and other organizations” (Fromhold-Eisebith & Eisebith, 2005, pp. 1252). Yet, cluster initiatives are often but not always a result of a public policy. Many cluster initiatives emerge from (predominantly) private efforts (as noted by (Benneworth, Danson, Raines, 2003; Sölvell, Lindqvist & Ketels, 2003), frequently without referring to the cluster label (Martin & Sunley, 2003).

Independently on whether the initiator is a public or a private actor, launching an initiative involves a decision to create a new social order among the participants. This could, for example, involve the introduction of collaboration among competitors, the need to change an already stable institution or even to create a network, in order to reorganize the inter-organizational relations in a given location. Hence, cluster initiatives are a deliberate effort to organize the environment and to enforce new rules.

As such, cluster initiatives make use of the elements, which constitute formal organizations. A new organizational actor is created which defines the center of authority and the constitutions. This new formal organization offers an arena where the organizational members can interact in a different way than they previously did and for different purposes. Cluster-based policies in the last decade have lead to the establishment of a big number of such formal “cluster organizations” which aimed at promoting clusters.

Since the members of cluster organizations are mostly companies, we can argue that they in fact represent organizations-of-organizations or meta-organizations which associate firms with other firms and related organizations in the same location and industry. If the cluster organization is successful in attracting members and sustaining the decided order, then we might witness the establishment of inter-organizational relations that researchers have observed as institutions and networks in geographically concentrated industries. However, cluster organizations are only an attempt to establish meta-organizational order, “a project with the potential for failure” (Ahrne & Brunsson, 2008, pp. 51).

Consequently, we believe that in order to improve the theoretical and policy relevance of the cluster concept, researchers should focus on understanding the characteristics of the cluster meta-organizations. Instead, cluster initiatives are often discussed with reference to contributions that study clusters as a business location. We believe that the results of this inquiry have limited applicability from a policy perspective because the organization of the inter-organizational relations is different. We argue that an organizational perspective would allow researchers to account for dynamics, which so far have received limited attention in literature.

First, a meta-organizational perspective acknowledges that “the environment of formal organizations can be organized, and formal organizations may be active in organizing their own members as well as their environment: other organizations and other individuals” (Ahrne & Brunsson, 2011, pp. 84). In other words, we can find organization not only within, but also outside and among formal organizations. This allows us to compare the collaborative and collective character of different locations in terms of their organizational elements. However, such approach is very different from the traditional way in which cluster organizations are discussed in literature. Contributions tend to focus on the form of governance of the formal organizations which represent cluster initiatives comparing, for example, the outcomes of different types of leadership (cluster managers) or organizational structures (see for example Fromhold-Eisebith & Eisebith, 2005; Jungwirth, Grundgreif & Muller, 2011). Yet, the success of a cluster initiative depends on the support of the targeted companies. A meta-organizational view recognizes the importance of all organizational elements and provides a theoretical framework to capture the process of creation of organization of local firms and study the totality of this social order.

More importantly, it allows us to study cluster initiatives not as an isolated case of organizing, but as a type of organizations-of-organizations. Hence, we can compare them to other similar meta-organizations, which associate firms with other organizations. In fact, in a given location there can be multiple business associations with different structure and purpose. This positions cluster initiatives in a narrative where firms in a location are free to choose between different meta-organizations. Hence, a meta-organizational view suggests that companies can in fact decide whom they will associate with.

We argue that an organizational perspective focuses our attention on the essential question behind the existence of business associations: why do firms become their members? Researchers have suggested the importance of this question also in the specific case of cluster promotion. So far, cluster initiatives have offered very mixed results when it comes to both managing to attract firms and realizing tangible gains from collaboration (Enright, 2003; Bathelt, 2005; Su & Hung, 2009; Feser, 2008; Falck, Heblich & Kipar, 2010; Martin & Sunley, 2011; Ebbekink & Lagendijk, 2012).

3. Firms' associational strategies

Since membership in associations is voluntary, the choice to join, remain a member or leave an association should be seen as a comparison that a firm makes against the alternatives of acting independently, outsourcing the needed service to a third party, joining a different association or not acting at all. Consequently, the choice of membership in a given association is likely to be made through an assessment of its costs and benefits which might vary between firms (Bennett, 1998c).

The costs of membership are related to the contribution that a member is expected to make to the organization (Ahrne & Brunsson, 2005). Contributions can be monetary such as membership fees, other tangible resources or even investment in common property. It is not unusual for such meta-organizations to invest in joint machinery, human resource development or similar common goods. On the other hand, contributions can be also non-monetary such as time, knowledge or other intangible assets. In fact, the net monetary cost of participating is often very small relative to the members' own resources and to carrying out the same action on one's own (Ahrne & Brunsson, 2005). At the same time, the non-monetary costs can be considered relatively high. Firms might decide not to participate in order to avoid knowledge spillovers to other members. Finally, being a member of a meta-organization implies a certain degree of reduction in autonomy. Firms are no longer free to act on their own, but have certain responsibility towards other members.

The benefits of membership are related to the purpose and the activities of the meta-organization (Knoke, 1986; Knoke, 1988, cited in Ahrne & Brunsson, 2005). Theory has differentiated two broad categories of demand for associations: the logic of services and the logic of influence (Olson, 1971; Van Waarden, 1991, cited in Bennett, 1998c). The first category indicates that associations respond to their members' specific business needs and can provide services such as organizing the collaboration between their members, providing training or even publishing educational or marketing material. The second category highlights that associations could also act as collective bodies representing the interests of their members.

Low costs and high benefits should make membership more attractive than staying outside. Firms join business associations in order to gain access to the specific services, achieve external influence or even because they wish to influence the meta-organization itself (Ahrne & Brunsson, 2005). In fact, members of meta-organizations have relatively higher opportunities for exerting influence than members of individual-based organizations as the survival of the association depends on their membership.

However, the choice to become a member depends also on the rest of the available alternatives. An organization could avoid membership all together if it possesses the resources to act on its own. Yet, firms tend to have limited resources and hence we consider membership in association to be a strategic choice related to the specific business needs of a given company. We argue that organizations choose which meta-organizations to join based on their strategic priorities. Such priorities are determined, for example, by the market and innovation strategies of the firm. A company that exports goods might be interested in joining a trade association. A firm looking for a specific business partner might join a cluster organization. An industry association at the same time might provide other business development opportunities. Thus, we argue that membership in meta-organizations is an important component of firms' "associational strategies".

Associational strategies refer to the way a given firm structures its inter-organizational relations with respect to its business needs. Such strategies encompass both dyadic and multi-partner relations, formal and informal organizing. In that sense, membership in an association is one of the components of an associational strategy. Other components could consist of partnerships through business alliances, participation in networks or even informal meetings with other firms. Literature has so far considered those components separately. We argue that there is a need to explore further both theoretically and empirically how different associational choices interplay and what factors drive companies to choose one alternative rather than another.

For example, a firm might prefer a given business association because it best suits its business strategy. Yet, it might also fulfill its needs by joining several other meta-organizations instead of one specific. Alternatively, it might not be a member of any business association because it has developed other associational components to support its activities. Also, a company might not join because of other concerns such as sharing information and resources with competitors. At the same time, a firm might be induced to join just because they are concerned about being left out and not because they are actually interested in the activities of the association.

Hence, we argue that firms who belong to the same category (location, sector) are not necessarily going to follow the same associational strategy. A simple cost-benefit analysis cannot fully explain membership choices. It is also not enough to understand how companies will behave as members of a meta-organization. Instead, we acknowledge that firms are heterogeneous in their strategic intends and actions. Firms in the same category might perceive and react differently to stimulus from their environment. Hence, associational strategies depend not only on the specific business needs, but also on how firms perceive their business environment. For example, positive perceptions of the home region might influence companies to choose a local business association instead of a meta-organization, which operates at a larger geographical scale.

Consequently, associations could in fact be in competition for the same members. For example, cluster initiatives might be in competition with other associations such as national industry associations or regional chambers of commerce that target the same companies. Furthermore, cluster organizations target companies in a specific sector and location who already might be a member of another meta-organization. Hence, cluster initiatives often try to establish a new organizational category, a different way of grouping firms. Ahrne & Brunsson (2005) have argued that it is very difficult to make a company abandon one meta-organization for another. This narrow focus severely weakens the authority of cluster initiatives, as they are very dependent on specific members. Given that firms might be members in more than one association, cluster initiatives might also be vulnerable to the interplay between multiple memberships.

Therefore, we have focused our research interest in this study on the meta-organizational component of firms' associational strategies. More specifically, our main research interest is directed towards understanding if there are differences in terms of business needs and perceptions of the business environment between companies that associate with other organizations in the same region and sector and the ones that have chosen other meta-associational alternatives. We analyze membership in business associations in terms of regional and sectoral focus, proposing three alternative associational strategies to membership in cluster organizations. It is important to underline here that we consider membership in cluster organizations to be a strategic alternative, which is defined through participation in a business association that has regional and sectoral focus. As such our empirical analysis in the next section groups under this category also business associations, which do not specifically draw on the concept of regional clusters. The reason is that we are interested in the meta-organizational strategy of companies and not in the specifics characteristics of the associations.

3.1 The firms' Associational Matrix

We have considered four main "associational strategies". First of all, a firm can decide not to be a member of an association at all. On the other hand, it might associate

with other firms in the same sector or in the same location. And as in the case of cluster initiatives, an organization might in fact choose both at the same time. These alternatives are summarized in **Figure 1** below.

		<i>Region</i>	
		No	Yes
<i>Sector</i>	No	No-No strategy	Region strategy
	Yes	Sector strategy	Cluster strategy

Figure 1 Associational Matrix

The Associational Matrix has two dimensions: sectoral focus and geographical focus. The geographical scale used in our analysis defines the focus of associations as regional, national and international depending on the geographical location of the member-companies. The sectoral focus is expressed here in terms of industry belonging.

The top left quadrant encompasses companies who are not members of any association (marked as “No-No” strategy). As mentioned above, such firms might possess the necessary resources to undertake actions on their own. On the other hand, they might have discovered alternative ways to obtain comparative results. One such possibility is to associate to others via alternative networks (personal or informal inter-firm networks). Ostgaard and Birley (1994) have argued, for example, that the personal network of the owner-manager is an important resource in the early years of firms’ development. Furthermore, if the company has particular business needs, there might be no association that could offer the desired benefits. At the same time, even if there is a suitable association, negative perceptions about other members or the quality of governance could also have an impact on membership decisions (Bennett, 1998c).

The top right quadrant contains organizations that are part of associations such as local business associations or regional chambers of commerce (marked as “Region” strategy). These local meta-organizations focus on firms located in geographical proximity without reference to a particular sector. The bottom left quadrant on the other hand, represents firms that are part of associations such as industry associations that have a broad geographical focus, but rather narrow sectoral focus (“Sector” strategy). In fact, the sectoral focus of associations can be defined on a large scale from a highly-focused subset of a sector (Portuguese Association of Air-Conditioning and Refrigeration) or as a complex mix across many parts of a single sector from production to final retailing (American Pet Food Trade Association). Finally, the bottom right quadrant consists of the companies that are members in business association that have both regional and a sectoral focus (“Cluster” strategy). We consider these quadrants to represent alternative associational strategies. In the first case, a company is a member of a meta-organization, which is open to all companies in the same region. In the second case, a firm is a member of an association that involves firms in different geographical locations but belonging to

the same sector. And in the third case, the business association has targeted only specific companies located in proximity.

Certainly, companies can join more than one business association and opt for an associational mix of sectoral and geographical coverage. In fact, studies have shown that economic activity is increasingly dependent on inter-firm networking to regulate complex transactional and cooperative interdependences (Grandori & Soda, 1995). Complex business needs could require complex associational mix of memberships. Economic geographers have argued that a big percentage of associational activities are confined nationally and predominantly within the region where the firm is located (Storper, 1997; Cooke & Morgan, 1998). Yet, recent studies have also indicated the opposite trend. Considering innovation networks, knowledge is increasingly segregated in the economy, leading to knowledge activities becoming more and more isolated in space (Howells, 2012). At the same time, Luo and Tung (2007) show that firms from emerging markets internationalize in order to gain a competitive advantage and overcome the institutional constraints of their home country. In fact Johanson and Vahlne (2009) argue that internationalization is becoming less a matter of country-specific and more of relationship and network-specific advantages. This implies that in certain conditions it might be more convenient to be a member of a network abroad and, hence, companies might not be interested at all in their local associations.

Hence, we argue that firms are not stuck in the “institutional thickness” (Amin & Thrift, 1995a) in their local environment, but can build relation assets (Dyer & Singh, 2007) at different geographical scales. Firms in the same location and sector can follow different “associational strategies”. In this logic, being part of a cluster initiative is only one of several possible alternatives. Actually, a firm might consider strategically more convenient joining a meta-organization in the same sector but in another country. This strategic perspective has so far remained underdeveloped in literature. Contribution discussing inter-organizational initiatives have mostly focused on project-management factors such as the motivations and expectations of the participating firms and the ability of the facilitator to generate trust relationships between them (see for example Huggins, 1998a; Huggins, 1998b). Factors that explain membership have received much less attention.

Existing literature explains membership in business associations by looking into the characteristics of meta-organizations. For example, studies by Bennett (Bennett, 1997; Bennett, 1998b; Bennett, 1998c; Bennett, 1999a; Bennett, 1999b) have shown that associations are numerous, with high variations in size, objectives and breadth of coverage of their sectors. The author provides empirical evidence that explains the differences in the size of associations (number of members) and their density of membership (percentage of sector covered) in the British context. Yet, he also points out that there are other key explanatory factors deriving from the objectives of the members and the forces acting on them. In the present paper we have developed this argument.

Our empirical contribution explains membership in business associations by looking into the characteristics of the firms. In the next section we make several assumptions about the differences between firms who have chosen one of the four associational strategies described above. We then compare those firms in order to see if there are statistically significant differences between the four groups.

4. Research design and results

Schmitz (2000) suggest that it is unreasonable to believe that all local firms would co-operate in a local initiative. At the starting point of our research we were interested in exploring how are firms that do co-operate within the same sector and region different from those that choose not to join. Our goal was to understand if cluster-based policies could be built better based on micro-theoretical insights.

We followed Perry (2007) who demonstrates that firms membership in cluster initiatives is contingent on the business environment and on other opportunities for collective association. We decided to investigate if the characteristics of the environment could influence firms to join cluster initiatives. In literature on clusters trust and social interaction enhanced by spatial proximity are seen to promote associability between firms (Storper 1995; Cooke and Morgan, 1998). While we agree with the importance of these factors for endogenous growth, we believe that firms are heterogeneous in how they perceive their environment. In other words, while regions differ in terms of their factors endowment, firms also vary in how they perceive their regions. Some firms might perceive the level of trust between companies to be higher and, hence, be more likely to become a member in a cluster initiative. Our argument is that policy efforts should then be adjusted to target the firms that are more likely to co-operate.

In order to study if perceptions differ, we constructed our dependent variable, which indicated firms' membership in a business association. This variable has four levels, corresponding to the four associational strategies mentioned above. We then constructed our research model, which takes into consideration independent variables that have been suggested by literature as being important for the promotion of associability of companies.

4.1 Independent variables and hypothesis

The independent variables selected in this study are relevant to cluster policy. In other words, we compare the perceptions of companies about factors that cluster initiatives try to influence in order to promote competitiveness. Cluster policies emerged as the archetype of a group of "soft" policy measures pursuing relational outcomes (Palazuelos, 2005). Such outcomes include the development of inter-organizational collaboration, human capital, business culture and schooling systems with focus on supporting a specific industry. Frequently, cluster initiatives support the development of high technology activities and promote innovation (Moulaert & Sekia, 2003; Sölvell, Lindqvist & Ketels, 2003).

Consequently, our research model consists of several constructs. largely inspired by Porter's Five Forces model (Porter, 2008) of industry competitiveness. Each construct consists of several variables, which measure different but related concepts. All together the variables assess how companies perceive the competitiveness of the region where they are located in. Several questions address specifically the market conditions of the respective industry sector. Finally, we compare companies also in terms of a few control variables, which have been pointed out as important for associability.

4.1.1 Perceived business obstacles

The first construct groups together several questions measuring the degree to which firms feel that the regional environment poses obstacles for their business. The questions refer to the quality of the regional infrastructure and institutions, the availability of resources and the existence of cooperative business culture. We expect that companies members in business associations will perceive their region as more problematic than firms who are not members of any meta-organization. One of the reasons why companies join meta-organizations is because they do not have the necessary resources to change their environment on their own (Ahrne & Brunsson, 2005). Yet, in line with Luo and Tung (2007) we expect companies who have relatively low perceptions of their regions to look for associational opportunities outside their home region. Consequently:

H1: Companies who are not members in regional associations perceive the general environment in their region as less problematic than member-companies.

H2: Companies who join associations operating at a higher than regional level, perceive the general environment in their region as more problematic.

4.1.2 Perceived investment behavior

The second construct measure how firms perceive the behavior of other local firms in terms of adopting new technologies and investing in RnD, human resource development and marketing. We think that a company who believes that other local firms do not invest enough in business development will lack incentives to join associations. At the same time, since geographical proximity allows monitoring and the commitment between firm is higher in cluster organizations than in geographically broader associations Perry (2005), we believe firms members in regional associations will have higher expectations from other local firms. Hence:

H3: As compare to non-members, companies members in any regional association will perceive more positively the business development efforts of other local firms.

H4: Companies that consider the level of investment by other local firms relatively high will be members of regional rather than other associations.

4.1.3 Perceived governmental influence

The next constructs looks into how firms judge the influence of the different levels of government on the competitive environment of their region. We have considered the local, regional, national and the European Union level of governance. The reason we have included these variables is that government intervention and coordination stimulates the need for a more organized responses (Bennett, 1999b; Bennett, 2000; Mizruchi, 1992). Hence, we expect that firms who have an associational strategy to perceive the government efforts as more effective. Thus:

H5: Companies members in associations will have higher perceptions of the impact of governmental efforts on the competitiveness of their region.

4.1.4 Perceived quality of the education and research institutions

The fourth group of questions evaluates the quality of the educational system in the region and the access to good research facilities and talented employees. We expect companies members in associations to judge more positively the quality of educational and research facilities in their region. The reason is that associations often provide access to institutions, which might even be an incentive for membership. Furthermore, we believe high perceptions are very relevant in the case of cluster initiatives as they often promote the connections between the business sector and academia (Lindqvist & Sölvell, 2012):

H6: As compared to non-members, companies members in associations will consider the quality of educational and research institutions in their region to be higher.

4.1.5 Perceived quality of local suppliers

Then, we measure how companies perceive the availability of suitable suppliers in their region. We expect companies who are part of a cluster initiative to have higher perceptions of local suppliers. The reason is that cluster initiatives draw on the notion of physical clusters which describes localized production systems of interconnected companies (Porter, 1998). Hence, we believe that companies will join regional-local associations if they think that it brings production benefits. Consequently:

H7: Companies members in cluster organizations will perceive the availability of suitable suppliers in their region to be higher.

4.1.6 Perceived competition

The last construct refers to sectoral market conditions in the region measured in number of competitors and intensity of competition. We expect firms who perceive the competition in their region to be higher, to avoid associating with other firms in the region (Osarenkhoe, 2010):

H8: Companies members in cluster organizations will perceive the competition in their region to be less intense.

4.1.7 Control variables

We compare the firms also in terms of their size, geographical location and industry belonging. These three variables have been suggested by literature as having an effect on associability. First, associations have particular relevance for small and medium-sized companies as large firms can self-supply their own service needs and have the financial power to stand outside of collective structures (Bennett, 1998a). Second, there can be a considerable difference between regions in the way membership develops due to path-dependence and cultural factors (Cooke & Morgan, 1998). And third, different sectors have similar associational characteristics even if they have very different production structure (Bennett, 1998a). Hence, we control whether the differences between the associational strategies can be connected to any of these three variables.

4.2 Data collection

As we were interested in exploring how firms who follow different associational strategies compare in terms of their perceptions of the local environment, we decided to include in the study companies belonging to different industries and regions. We believed that independently of the location, the sector or the firm's size, certain perceptions would influence associability. We chose three European regions (Portugal (Norte), Romania (Centru), Spain (Basque Country)) where we used regional databases with subset of companies in each region¹. We decided to collect the data through an online survey, which was translated in each respective language. The survey was then sent to the managers of each company.

The reason why we selected those three regions is that there are relatively few empirical studies of cluster initiatives conducted in the European periphery and in least favored regions (Amin & Thrift, 1995b), while at the same time these regions are targeted by cluster policies. We chose three regions that are different, but also comparable in terms of cultural, historical and economical factors. At the same time, we followed Hambrick and Mason (1984) who suggests that organizations are a reflection of their top managers. And as it is only rare that firms see themselves as belonging to a standard NACE /SIC sector (Bennett, 1998a), we trusted that managers can properly define their sector. Hence, we believed that the perceptions of managers are influential for the formation of associational strategies. We asked them to provide us with information about the dependent and independent variables. In other words, we asked them about their perceptions of the home region and which associations their company belongs to.

We then conducted an extensive Internet search to find each association and define its regional and sectoral focus. All the considered initiatives are symmetric bureaucratic networks of more than two firms, which are formalized in exchange or associational contractual agreement (Grandori & Soda, 1995). Furthermore, there is a formal or partial-organization (Ahrne & Brunsson, 2011), which represents the initiative. Asymmetric bureaucratic networks (franchising, licensing), propriety networks (holdings, joint ventures) or personal, informal inter- or extra-firm networks or other types of associations such as labor unions or professional associations fall out of the scope of the paper.

4.3 Results

In total, 1227 companies answered the survey, 355 of which belonged to an association. 288 of these firms were members in only one association. Only 7 organizations joined more than one regional cluster. And only 8 companies were members of more than one industry association operating at a higher geographical scale. This observation confirms the theoretical assumption of Ahrne and Brunsson (2005) that organizations would be less inclined to join more than one meta-organizations and if they do, the purpose of the associations should be different. In fact, 19 organizations were members of meta-organization operating at different geographical levels. Moreover, only a few organizations in our sample were members of international meta-organizations.

Due to missing data we considered 321 member-companies in the empirical analysis. As a first step, we used cross tabulations in order to see if there is a statistically significant difference between the associational strategies in terms of regions and sectors.

¹ All together we contacted 9200, which gave us a response rate of about 13%.

Table 1 and **Table 2** below summarize the results. Both models showed a Pearson Chi-Square value of **.000** showing that indeed there are significant differences in associational strategies between regions and sectors. In the survey we used the European Cluster Observatory's industry categories, which we have aggregated here into larger industry groups. Selecting a confidence level of 0.5 (residuals bigger than +/- 1.95), we notice several industry groups for which the difference between associational strategies is statistically significant. Creative industries (ex. media, publishing, entertainment, design) and Food production (ex. agriculture, fishing, processed food) tend to be organized in functional clusters, while Life science (ex. biotech, pharmaceuticals), Heavy production (ex. heavy machinery, metal manufacturing) and Textiles and Clothing (ex. apparel, footwear) are organized in geographically broader sectoral associations. The sector does not seem to be relevant when it comes to non-member companies.

Table 1 Sector cross-tabulation with associational strategies

			No-No	Region	Sector	Cluster	Total
Sector group	KIBS	Count.	158	8	17	28	211
		Stand. Residual	.3	1.4	-1.4	.1	
	Consumer goods	Count.	74	2	10	16	102
		Stand. Residual	-.1	-.2	-.5	.8	
	Creative industries	Count.	33	1	0	19	53
		Stand. Residual	-.9	-.2	-2.5	4.6	
	Food production	Count.	97	5	8	36	146
		Stand. Residual	-1	.9	-2.1	3.9	
	Life science	Count.	16	0	12	1	29
		Stand. Residual	-1.1	-.8	4.8	-1.4	
	Other	Count.	43	5	8	1	57
		Stand. Residual	.2	3.2	.6	-2.4	
	Primary materials	Count.	59	0	6	6	71
		Stand. Residual	1	-1.3	-.7	-1.1	
	Heavy production	Count.	142	2	36	20	200
		Stand. Residual	-.4	-1.2	2.8	-1.2	
	Service providers	Count.	168	5	19	25	217
		Stand. Residual	.7	0	-1.2	-.6	
	Textile&Clothing	Count.	89	0	21	4	114
		Stand. Residual	.6	-1.6	2.2	-2.8	
Total			879	28	137	156	1200

Table 2 Region cross-tabulation with associational strategies

			No-No	Region	Sector	Cluster	Total
Country	Romania	Count.	183	9	10	27	229
		Stand. Residual	1.2	1.6	-3.2	-.5	
	Portugal	Count.	424	8	99	54	585
		Stand. Residual	-.2	-1.5	3.9	-2.5	
	Spain	Count.	272	11	28	75	386
		Stand. Residual	-.6	0.7	-2.4	3.5	
Total			879	28	137	156	1200

Considering regions, we notice that Portugal Norte and Basque Country show very different statistically significant features of organizing. In Portugal the associational activities between companies are organized at a higher geographical level as compare to the Basque Country where there are more regional clusters. The Romanian sample of firms on the other hand has relatively fewer companies that are members in associations.

Table 3 shows the differences between firms in terms of company size (measured in number of employees) and associational strategy (Chi-square **.000**). Again our empirical results confirm the theoretical assumptions. As suggested by Bennett (1999b) micro firms of less than ten employees tend to not be members of associations. Associations are instead important for small and medium sized companies and large companies show a strong tendency to be part of sectoral associations with a broader geographical focus.

Table 3 Company size cross tabulation with associational strategies

			No-No	Region	Sector	Cluster	Total
Employees	< 9	Count.	432	15	22	63	464
		Stand. Residual	2.1	.7	-5.0	-.7	
	10-49	Count.	345	9	51	59	155
		Stand. Residual	.3	-.6	-.3	-.2	
	50-249	Count.	87	4	41	23	532
		Stand. Residual	-2.5	.2	5.5	.6	
	> 249	Count.	15	0	23	11	49
		Stand. Residual	-3.5	-1.1	7.4	1.8	
Total			879	28	137	156	1200

The next step of the analysis was to look at how perceptions of firms differ with respect to the different associational strategies. We used the One-way ANOVA method to analyze the variance in the independent variables (scale variables measured on 5-step Likert scales in the survey) with respect to the four associational strategies. **Table 4** shows the statistical significance of the independent variables.

The Levene test of homogeneity of variances is statistically insignificant for all variables but Competition. This means we can reject the Ho hypothesis and confirm that the groups are statistically different from each other with respect to the rest of the independent variables. This claim proves to be robust also with respect to Welch and Brown-Forsythe tests of equality of means. The Suppliers variable however does not pass these tests. Finally, we can confirm that the ANOVA analysis shows statistically significant differences between associational strategies in terms of the first four variables. Eta squared shows the effect size. **Table 5** reports the means, number of observations (N) and standard deviation for each of the significant variables.

Table 4 One-way ANOVA analysis of variance between associational strategies

	Levene Test Sig.	Welch Test Sig.	Brown- Forsythe Sig.	ANOVA F	ANOVA Sig.	Eta squared
Business obstacles	.109	.002*	.005*	5.176	.001*	.015
Investment behavior	.107	.011*	.030*	3.368	.018*	.009
Government influence	.344	.000*	.000*	9.856	.000*	.028
Education&Research	.839	.000*	.001*	6.052	.000*	.017
Suppliers	.869	.866	.868	.219	.883	.001
Competition	.042*	.218	.126	1.654	.175	.005

Table 5 Descriptive statistics for each associational strategy

		No-No	Region	Sector	Cluster	Total
Business obstacles	Mean	2.8857	3.1084	2.6825	2.7997	2.8545
	N	728	24	123	139	1014
	Std. Deviation	.64339	.79860	.57386	.63000	.64150
Investment behavior	Mean	2.8382	2.7482	3.0359	2.8347	2.8588
	N	805	28	131	144	1018
	Std. Deviation	.69791	.82613	.62758	.70706	.69688
Government influence	Mean	2.4720	2.6840	2.9318	2.6385	2.5535
	N	745	24	121	139	1029
	Std. Deviation	.90580	.85302	.82538	.90013	.90631
Education & Research	Mean	2.8294	2.9380	3.1010	2.8475	2.8669
	N	768	25	127	142	1062
	Std. Deviation	.67510	.70965	.61686	.70261	.67779

In order to understand how are the means statistically different from each other, we applied Turkey HSD Post-hoc test for each of the mean comparisons, reported in **Table 6**. Each of the columns in the table shows the mean difference (I-J) between a pair of strategies where I is the top row and J is the bottom row. The several mean differences show statistically significant result and the level of significance is reported below each of these results.

Finally, we compare the results to our hypotheses. The difference between non-member companies and members in regional associations in terms of perceived Business obstacles was indeed negative indicating that H1 was stated correctly. Yet, the result was not statistically significant. On the other, H2 is rejected with a strong statistically significant result. Not only do companies members in associations operating at a higher than regional level perceive their home region as less problematic for their business, but the difference is also significant with respect to both non-members and members in regional associations.

Based on the results we can also reject H3 and H4. Even if not statistically significant, the mean differences show that non-member firms in fact have higher perceptions about the level of investment of other local firms. At the same time companies who are members in geographically broader associations perceive better their neighbors.

At the same time, H5 was confirmed with statistically significant mean difference between members and non-members firms. Companies who associate do in fact perceive that government efforts have an impact on the competitiveness of their region. The same is true also for how firms perceive the quality of regional educational and research facilities (H6). Finally, H7 and H8 were rejected in the ANOVA analysis.

Table 6 Post-hoc test of mean difference

	I: (I-J)	No-No	No-No	No-No	Region	Region	Sector
	J: Region	Region	Sector	Cluster	Sector	Cluster	Cluster
Business obstacles	Mean difference	-.22272	.20320*	.08597	.42592*	.30869	-.11723
	Sig.		.006		.015		
Investment behavior	Mean difference	.08998	-.19768*	.00348	-.28766	-.08651	.20116*
	Sig.		.014				.078
Government influence	Mean difference	-.21199	-.45978*	-.16645	-.24779	.04554	.29333*
	Sig.		.000				.042
Education & Research	Mean difference	-.10862	-.27167*	-.01815	-.16305	.09046	.25351*
	Sig.		.000				.011

5. Discussion

To begin with, the three control variables showed statistically significant differences between the firms in the four groups. As suggested in literature, the way associations are formed is related to firms' size, the sector and the geographical location.

Smaller firms are less likely to be members of meta-organizations. They also seem to be more likely to join regional and cluster organizations rather than geographically broader associations, preferred by larger firms. We believe the reason is that bigger and smaller firms have different business needs and resources, which is then reflected in their associational strategy. Smaller firms might be incentivized for example to join forces with local firms and even collaborate with competitors in order to internationalize and remain competitive on the global market, as suggest by Hubert (1999) and Boehe (2013).

Under certain circumstances large firms might also be incentivized to associate with smaller firms even at a regional level. For example, the threat of a new entrance could put pressure on large firms to protect their supply base (Perry, 2005). Yet, we believe that whether firms will choose to do so, would also depend on how they evaluate this associational strategy with respect to other options. For example, if they perceive the quality of their local suppliers to be high, they might be more open to collaboration. Unfortunately, as our survey results also indicate, these choices are not as simple and there are other factors that could influence the perception of value in a relationship (Osarenkhoe, 2010). An example can be found in the footwear industry in the Portugal Norte region, which experienced a sharp decline in employments between 1995 and 2000. This was due to large firms moving their production facilities to low-cost destinations in Eastern Europe and Asia ultimately leading to decline of the industry as a whole (Vale & Caldeira, 2007).

The same relational complexity is valid when one takes into account relations between competitors. Competition and collaboration or "coopetition" (Brandenburger & Nalebuff, 1996) in industrial clusters has been widely discussed in theory (see Newlands, 2003 for a review). Yet, it is not clear how is coopetition related to regional and sectoral associability of firms. The way competition was measured in this study proved to be insufficient. We suspect that the reason is that important competitive and sectoral dimensions should be included in the analysis. For example, if firms compete for the same market abroad, they might be reluctant to collaborate at home (Perry, 2005). At the same time, a large number of local competitors might be a result of spinoffs of local firms implying that associability could happen through strong personal ties rather than meta-organizing.

Moreover, our results confirm that there might be consistency in the way sectors meta-organize. Some sectors are more likely to organize locally, while others create larger and geographically broader meta-organizations. We believe proximity plays an important role in this process. In the food production sector, for example, production systems will tend to be more localized and meta-organized regionally. Face-to-face interactions enable knowledge sharing and monitoring (Florida, 1995), which is essential for creative and knowledge-intensive industries.

Yet, the sector does not seem to be determine whether or not companies will meta-organize, which confirms our expectations that other factors interplay with associational strategies. Our results indicate that the way firms perceive their environment is relevant to how they will associate with other firms. The factors we chose indicate different incentives

to join an association. First, we found out that companies members in geographically broad associations consider their local environment less of an obstacle for their business as compare to non-member firms. We believe this is a result of the support associations provide to their members. However, members in local associations seemed to be less positive about their regional environment, which is possibly a motivation to meta-organize.

Second, we show that companies in clusters and regional associations perceive the investments in business development of other firms in the region as less sufficient. A possible explanation is that companies who consider that firms in the region do not invest enough will team up with organizations that are more active in business development. Another possible explanation is that some firms might lack incentives to be members in local associations because they wait on others to invest. Even if in the case of business associations free riding is not considered to be a problem (Ahrne & Brunsson, 2005), in some cases it might indeed be one.

Third, our analysis shows that perceptions about the quality of the educational system and research institutions are important for associability. We believe firms will be incentivized to join meta-organizations if they think that membership could lead to collaboration with respected institutions. Participation in this case indicates a benefit being perceived (Perry, 2007). At the same time, the way firms perceive their government is also relevant for membership. Firms in associations tend to have higher expectations of the effectiveness of public authorities. Hence, we argue that not only is the level of government intervention and coordination in the sector important (Bennett, 2000), but also how this is perceived by the private sector matters. In that respect we expected firms in clusters to have high opinion of public governance. We believe the mean for this group was lower because many of the cluster initiatives were located in the Basque country where low perceptions of the central government offset the positive perception of the effectiveness of local authorities.

This leads us to our final observation. The three regions considered in this study showed somehow different pattern of associability, which we believe is related to path-dependent and historically contingent factors. In the Basque country firms tend to be members of regional meta-organizations because the region is characterized with high political autonomy and strong and cohesive local culture (Cooke & Morgan, 1999). On the other hand, many of the Portuguese associations in our study were operating at a national level. Yet, the number of local meta-organizations was also significant possibly reflecting the shift from a centralized to more regionally organized state (Opello, 1992). In Romania we did not find the same variety of meta-organizations. The companies in our sample were mostly members of a few cluster initiatives, which we believe reflect government efforts to restructure the economy during post-communism transition to capitalism (Birch & Mykhnenko, 2009)

6. Conclusions

In this paper we argued that cluster initiatives represent a meta-organizational form of organizing inter-organizational relations. As such they should not be studied in isolation but compared to other associational strategies that firms could follow. We focused on one component of associational strategies, firms' membership in business associations, and proposed a way in which strategies could be compared and studied. The Associational Matrix proposed in this paper compares four different strategies: not being a member; being a member in geographically broader sectoral association; being a member in regional

associations; and being a member of a cluster initiative which is an association of firms operating in the same sector and located in the same region. We then tested several research hypotheses in order to see if there are differences between the companies belonging to each group in terms of their perception of the local environment.

Our results point out that there is a need to further investigate how firms form associational strategies. We find statistically significant differences between the groups with respect to how firms perceive their general business environment, the effectiveness of public governance, the quality of educational and research institutions and the investment behavior of other local firms. Consequently, we argue that independently of the location, the sector or the firm's size, certain perceptions will influence associability. This implies also that more attention should be given to location per se as a variable affecting the formulation of associational strategies.

The motivation for this study was to investigate whether companies who are members in cluster organizations differ from other firms. The main statistical differences we found distinguished clusters from industry associations operating at higher geographical levels. These results seem to confirm the empirical study of Perry (2007) who investigated the attractiveness of cluster initiatives to managers. He points out that managers expect clusters to perform a different role from an industry group. However, as the independent variables in our analysis had means very close to the average, it seems that this role is very different for different clusters.

Our study has several implications for policy makers and cluster researchers. First of all, acknowledge that cluster organizations are not a separate case of policy initiatives, but an attempt to meta-organize the inter-firm relations in a given location. Consequently, the most important organizational element to consider when designing a policy is the potential members. The successful implementation of a cluster initiative is dependent on targeting the members who can be attracted and retained in the new organizations. This implies that policy makers have to investigate beforehand what could motivate firms to choose a cluster associational strategy, which is very likely to be dependent on the region and the sector in question. In order to understand how to encourage firms to join local initiatives one needs to compare those with the alternative associational opportunities. Our results showed that firms tend to join one or few meta-organizations, which indicates that they are in fact strategic in choosing associational opportunities.

6.1 Limitations and future research

In this study we did not consider how other components of an associational strategy such as informal networks might interplay with memberships in business associations. Also, our sample did not allow us to look at firms who associate both outside their region and sector. These are two very promising directions for future studies of associational strategies.

Reference:

- Ahrne, G and Brunsson, N (2011) 'Organization outside organizations: the significance of partial organization', *Organization* 18(1), 83–104.
- Ahrne, G and Brunsson, N (2005) 'Organizations and meta-organizations', *Scandinavian journal of Management* 21(4), 429–449.
- Ahrne, Göran and Brunsson, Nils (2008) *Meta-Organizations*. Edward Elgar Publishing.
- Amin, A and Thrift, N (1995a) 'Globalisation, institutional "thickness" and the local economy', in *Managing cities: The new urban context*, pp. 91–108.
- Amin, Ash and Thrift, Nigel (1995b) 'Institutional issues for the European regions: from markets and plans to socioeconomics and powers of association', *Economy and society* 24(1), 41–66. Taylor & Francis.
- Bathelt, Harald (2005) 'Geographies of production: growth regimes in spatial perspective (II) – knowledge creation and growth in clusters', *Progress in Human Geography* 29(2), 204–216.
- Bennett, Robert J (1997) 'Administrative systems and economic spaces', *Regional Studies* 31(3), 323–336. Taylor & Francis.
- Bennett, Robert J (1998a) 'Business associations and their potential to contribute to economic development: reexploring an interface between the state and market', *Environment and Planning A* 30(8), 1367–1387.
- Bennett, Robert J (1998b) 'Explaining the membership of voluntary local business associations: the example of British Chambers of Commerce', *Regional Studies* 32(6), 503–514. Taylor & Francis.
- Bennett, Robert J (1998c) 'Business associations and their potential contribution to the competitiveness of SMEs', *Entrepreneurship & Regional Development* 10(3), 243–260. Taylor & Francis.
- Bennett, Robert J (1999a) 'Business associations: their potential contribution to government policy and the growth of small and medium-sized enterprises', *Environment and Planning C: Government and Policy* 17(5), 593–608.
- Bennett, Robert J (1999b) 'Explaining the membership of sectoral business associations', *Environment and Planning A* 31(5), 877–898.
- Bennett, Robert J (2000) 'The Logic of Membership of Sectoral Business Associations', *Review of Social Economy* 58(1), 17–42.
- Benneworth, Paul, Danson, Mike, Raines, Phil (2003) 'Confusing clusters? Making sense of the cluster approach in theory and practice', *European Planning Studies* 11(5), 511–520.
- Berger, P and Luckmann, T (1966) *The Social Construction of Reality; A Treatise in the Sociology of Knowledge*. Garden City, New York: Doubleday.
- Boehe, Dirk (2013) 'Collaborate at Home to Win Abroad: How Does Access to Local Network Resources Influence Export Behavior?', *Journal of Small Business Management* 51(2), 167–182.
- Borrás, Susana and Tsagdis, Dimitrios (2008) *Cluster Policies in Europe*. Edward Elgar Publishing.
- Brandenburger, Adam and Nalebuff, Barry (1996) *Co-opetition*. Broadway Business.
- Burfitt, A and Macneill, S (2008) 'The challenges of pursuing cluster policy in the congested state', *International journal of urban and regional ...*
- Cooke, Philip and Morgan, Kevin (1998) *The Associational Economy*. Oxford University Press.

- Cooke, Philip and Morgan, Kevin (1999) 'The Basque Conundrum: Regional Autonomy and Economic Decline', in *The associational economy: firms, regions, and innovation*. Oxford University Press.
- Dyer, Jeffrey H and Singh, Harbir (2007) 'The relational view: Cooperative strategy and sources of interorganizational competitive advantage', *Academy of Management Review* 23(4), 660–679. Academy of Management.
- Ebbekink, Miranda and Lagendijk, Arnoud (2012) 'What's Next in Researching Cluster Policy: Place-Based Governance for Effective Cluster Policy', *European Planning Studies*, 1–19.
- Enright, Michael J (2003) 'Regional clusters: what we know and what we should know', in J. Bröcker, D. Dohse, and R. Soltwedel (eds) *Innovation clusters and interregional competition*, pp. 99–129. Berlin Heidelberg: Springer.
- Falck, Oliver, Heblich, Stephan and Kipar, Stefan (2010) 'Industrial innovation: Direct evidence from a cluster-oriented policy', *Regional Science and Urban Economics* 40(6), 574–582.
- Feser, Edward J (2008) 'On building clusters versus leveraging synergies in the design of innovation policy for developing economies', in U. Blien (ed.) *The Economics of Regional Clusters - Networks, Technology and Policy*, pp. 177–199. Cheltenham: Edward Edgar Publishing Limited.
- Feser, Edward J and Bergman, Edward M (2000) 'National Industry Cluster Templates: A Framework for Applied Regional Cluster Analysis', *Regional Studies* 34(1), 1–19. Taylor & Francis Group.
- Florida, Richard (1995) 'Toward the learning region', *Futures* 27(5), 527–536. Elsevier.
- Fromhold-Eisebith, Martina and Eisebith, Günter (2005) 'How to institutionalize innovative clusters? Comparing explicit top-down and implicit bottom-up approaches', *Research Policy* 34(8), 1250–1268.
- Grandori, Anna and Soda, Giuseppe (1995) 'Inter-firm networks: antecedents, mechanisms and forms', *Organization studies* 16(2), 183–214. Sage Publications.
- Hambrick, Donald C and Mason, Phyllis A (1984) 'Upper echelons: The organization as a reflection of its top managers', *Academy of Management Review* 9(2), 193–206. Academy of Management.
- Howells, J (2012) 'The geography of knowledge: never so close but never so far apart', *Journal of Economic Geography* 12(5), 1003–1020.
- Hubert, Schmitz (1999) 'Global Competition and Local Cooperation: Success and Failure in the Sinos Valley, Brazil', *World Development* 27(9), 1627–1650. Elsevier Science Publishing Company, Inc.
- Huggins, R (1998a) 'Building and Sustaining Inter-firm Networks Lessons from Training and Enterprise Councils', *Local Economy*.
- Huggins, Robert (1998b) 'Local Business Co-operation and Training and Enterprise Councils: The Development of Inter-firm Networks', *Regional Studies* 32(9), 813–826.
- Johanson, Jan and Vahlne, Jan-Erik (2009) 'The Uppsala Internationalization Process Model Revisited', *Journal of International Business Studies* 40(9), 1411–1431. Palgrave Macmillan.
- Jungwirth, Carola and Mueller, Elisabeth (2010) 'The Sustainability of Clusters-Consequences of Different Governance Regimes of Top-Down and Bottom-Up Cluster Initiatives', Available at SSRN 1615380.
- Jungwirth, Carola, Grundgreif, Daniel and Muller, Elisabeth (2011) 'How to turn public networks into clubs? The challenge of being a cluster manager', *International Journal of Entrepreneurial Venturing* 3(3), 262–280. Inderscience.
- Knoke, David (1986) 'Associations and interest groups', *Annual Review of Sociology*, 1–21. JSTOR.

- Knoke, David (1988) 'Incentives in collective action organizations', *American Sociological Review*, 311–329. JSTOR.
- Lindqvist, Göran and Sölvell, Örjan (2012) 'Organizing Clusters for Innovation Lessons from city regions in Europe', 1–58.
- Luo, Yadong and Tung, Rosalie L (2007) 'International expansion of emerging market enterprises: A springboard perspective', *Journal of International Business Studies* 38(4), 481–498. Nature Publishing Group.
- Martin, R and Sunley, P (2011) 'The new economic geography and policy relevance', *Journal of Economic Geography* 11(2), 357–369.
- Martin, Ron and Sunley, Peter (2003) 'Deconstructing clusters: chaotic concept or policy panacea?', *Journal of Economic Geography* 3(1), 5–35. Oxford Univ Press.
- Mizruchi, M S (1992) 'The structure of corporate political action: Interfirm relations and their consequences'.
- Moulaert, F and Sekia, F (2003) 'Territorial innovation models: a critical survey', *Regional Studies*.
- Newlands, David (2003) 'Competition and Cooperation in Industrial Clusters: The Implications for Public Policy', *European Planning Studies* 11(5), 521–532. Taylor & Francis Group.
- Olson, Mancur (1971) *The Logic of Collective Action: Public Goods and the Theory of Groups*. Cambridge: Harvard University Press.
- Opello, Walter C, Jr. (1992) 'Portuguese regionalism in the transition from the Estado Novoto the single market', *Regional Politics and Policy* 2(1-2), 162–186.
- Osarenkhoe, Aihie (2010) 'A coepetition strategy – a study of inter-firm dynamics between competition and cooperation', *Business Strategy Series* 11(6), 343–362.
- Ostgaard, Tone A and Birley, Sue (1994) 'Personal networks and firm competitive strategy—a strategic or coincidental match?', *Journal of Business Venturing* 9(4), 281–305. Elsevier.
- Palazuelos, M (2005) 'Clusters: Myth or realistic ambition for policy-makers?', *Local Economy*.
- Peck, Frank and Mcguinness, David (2003) 'Regional development agencies and cluster strategies: Engaging the knowledge-base in the North of England', *Local Economy* 18(1), 49–62. SAGE Publications.
- Perry, Martin (2007) 'Business environments and cluster attractiveness to managers', *Entrepreneurship & Regional Development* 19(1), 1–24.
- Perry, Martin (2005) 'Clustering small enterprise: lessons from policy experience in New Zealand', *Environment and Planning C: Government and Policy* 23(6), 833–850.
- Porter, Michael E (1998) *Clusters and the New Economics of Competition*. Harvard Business Review.
- Porter, Michael E (2008) *On Competition*. Harvard Business School Press.
- Pouder, Richard and John, Caron H St (1996) 'Hot spots and blind spots: geographical clusters of firms and innovation', *Academy of Management Review* 21(4), 1192–1225. Academy of Management.
- Powell, W (2003) 'Neither market nor hierarchy', *The sociology of organizations: classic, contemporary, and critical readings* 315, 104–117.
- Sadler, David (2004) 'Cluster evolution, the transformation of old industrial regions and the steel industry supply chain in North East England', *Regional Studies* 38(1), 55–66. Taylor & Francis.
- Saxenian, A L (1996) 'Regional advantage: culture and competition in Silicon Valley and Route 128 - Annalee Saxenian - Google Books'.
- Schmitz, Hubert (2000) 'Does local co-operation matter? Evidence from industrial clusters in

- South Asia and Latin America', *Oxford Development Studies* 28(3), 323–336. Taylor & Francis.
- Selznick, Philip (1957) *Leadership in Administration*. New York: Harper and Row.
- Sölvell, Örjan, Lindqvist, Göran and Ketels, Christian H M (2003) *The Cluster Initiative Greenbook*.
- Storper, Michael (1997) *The Regional World*. Guilford Press.
- Su, Yu-Shan and Hung, Ling-Chun (2009) 'Spontaneous vs. policy-driven: The origin and evolution of the biotechnology cluster', *Technological Forecasting & Social Change* 76(5), 608–619. Elsevier Inc.
- Taylor, Michael and Asheim, Bjørn (2001) 'The concept of the firm in economic geography', *Economic Geography* 77(4), 315–328. Wiley Online Library.
- Tully, Janet and Berkeley, Nigel (2004) 'Visualising the operating behaviour of SMEs in sector and cluster: Evidence from the West Midlands', *Local Economy* 19(1), 38–54. Taylor & Francis.
- Vale, Mário and Caldeira, Josué (2007) 'Proximity and knowledge governance in localized production systems: the footwear industry in the north region of Portugal', *European Planning Studies* 15(4), 531–548. Taylor & Francis.
- Van Waarden, F (1991) *Two logics of collective action? Business associations as distinct from trade unions: the problems of associations of organisations*. Employers' Associations in Europe: Policy and Organisation, Baden-Baden: Nomos Verlagsgesellschaft