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evidence from the leather products cluster in Florence

M. Lombardi and F. Randelli

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The role of leading firms in the evolution of SMEs clusters: evidence from the leather products cluster in Florence

Mauro Lombardi and Filippo Randelli[1]

Abstract. Clusters that emerged in the past have changed during the latest decades, so that today the research challenge in economic geography is on their evolution over time. The aim of this paper is to update on the evolutionary path of SMEs Italian clusters, which faced with the economic crisis are undergoing a process of decline in the number of firms. Furthermore changes in the techno-economic landscape and in the competitive environment have generated new challenges. In this context, some leading firm, able to connect local resources (and firms) to global networks, have emerged over time. We argue that within SMEs clusters, the leading firms act as a gatekeeper, linking local networks to global markets. The focus will be on local networks interacting with leading firms and particular attention will be devoted to the pattern of co-evolution and to the geographical dimension of this co-evolutionary process. To empirically verify if others firms in the cluster may co-evolve with the leading firm over time, a deep analysis of the Gucci network in the leather products cluster in Florence will be carried out.

JEL codes: L22, L67, R11, R12.

Keywords: cluster evolution, Italian SMEs clusters, network of firms, coevolution.

1. Introduction

[1] Corresponding author: Filippo Randelli, University of Florence, Department of Economics
Via delle Pandette, 9
50127 – Firenze
email: filippo.randelli@unifi.it

Since Michael Porter argued on the competitive advantage of spatial agglomeration (1990), clusters have become a relevant topic in economic geography and in all those other disciplines studying the relation between firms and territory. In fact, a decade before, scholars (Garofoli, 1981; Tinacci, 1982) have pointed to the spectacular growth of agglomerated systems of small and medium size enterprises (SMEs) that Becattini (1979) referred to Marshall's (1896) ideas of agglomeration externalities with a common regional labour system, many specialised suppliers, shared infrastructures and knowledge spillovers.

According to Malmberg and Maskell (2002), previous research on spatial clustering can be categorized on the basis of two main types of advantage which explain clustering: cost reductions and knowledge spillover. Cost reductions derive from locally available collective resources, specialized labour, and various transaction efficiencies. Knowledge spillover refers to the flow of industry-related information and knowledge between firms in the same or related industries. Those studies have been focused on the advantages of agglomeration but didn't offer any insight on the different shapes of clusters and afterwards on their evolution over time.

Markusen (1996), in order to address the increasing complexity and variety of cluster worldwide, through inductive observation, broadened the picture by introducing additional models of clusters. Besides the Marshallian formulation, three additional models of clusters were proposed: "hub-and-spoke", "satellite platform", and "state-centered".

Recently Arikan and Schelling (2011) have further honed the aforementioned theoretical framework by focusing on economic agglomerations as Industrial Districts. They have analysed IDs according to two main dimensions (need for coordination and centralization of control), which in turn are characterised as follows: 1) need for coordination is linked to complexity (technological and demand complexity) and to the imperfect separability of activities to be performed in order to have a good. 2) Centralization of control is connected to A) the architectural control of a product (for example control over a technology), B) the minimum efficient scale of a stage of the value chain of an industry, where lead firms become integrators of multiple sub-systems.

Even such a sophisticated modelling approach could not explain the large variety of clusters. However such approaches have to face two big challenges: 1) how to conceptualize a large variety of clusters (varying morphology), 2) how to explain

changes in models that emerge due to manifold pressures which trigger and foster multi-dimensional processes (evolutionary morphology of agglomerations).

Furthermore, clusters that emerged in the early stage have changed over time, some of them disappeared or underwent reinvention and transformation, others reinforced their competitiveness and are still competing on global markets, others are undergoing a deep crisis so that today the research challenge in economic geography is on their evolution over time. If the attention moves from patterns of clustering to the evolution of spatial concentration as a result of multidimensional processes, then it needs to go beyond the "Porter diamond" and the vast literature focused on the advantage of clustering cannot be helpful.

In recent years many economic geographers and management theorists have focused on constructing a theory of cluster evolution (Boschma and Frenken, 2006; Martin and Sunley, 2006; Boschma and Martin, 2007; Boschma and Martin, 2010) with the aim of helping to understand how the economic landscape, including clusters, evolves over time, while the very same concept of the firm must be redefined (Contractor et al., 2010). A decade of both theoretical and empirical studies has provided new insights on clustering and agglomeration externalities (Boschma and Frenken, 2011).

Recent works on clusters seems to support the idea that there is not a dominant dynamic in determining the evolution of clusters. New diversified and idiosyncratic patterns of growth have been observed, sometimes even within the same cluster. Unidirectional development patterns have not proved valid anymore, and different paths have been followed to cope with the new competitive challenges posed by globalisation of markets and technologies. In this perspective, in order to understand the varying and evolutionary morphology of clusters, we have to focus on some forces which act at different levels.

Indeed, cluster evolution has to be considered not simply in terms of development of the cluster in isolation, but in the context of its co-evolution with the global industry of which it is itself part, and other similar clusters elsewhere with which it is in competition (Martin and Sunley, 2011).

The main contribution of this paper is threefold. First of all we aim to describe the evolutionary morphology of a famous agglomeration of activities around leather products, centred on leading fashion firms. Second, the connective geometry between these leading firms and suppliers is analysed, in so highlighting how web of interdependencies have changed over time. Third, crucial mechanisms are treated in

order to understand the intertwining of coordination, governance, and information flows.

In section 2 a review of the literature on the evolution of clusters will be provided in order to shape the theoretical framework of this paper. On this line, the aim of this paper is to update on the evolutionary path of SMEs Italian clusters (section 3), which faced with the economic crisis are undergoing a process of decline in the number of firms. Due to different capabilities, in many SME's clusters, some leading firms emerged over time and today they have a dominant role in the evolution of the cluster. In this paper we will focus on local networks interacting with leading firms and particular attention will be devoted to the pattern of co-evolution and to the geographical dimension of this co-evolutionary process. To empirically verify if others firms in the cluster may co-evolve with a leading firm over time, in section 4 a deep analysis of Gucci network within the leather products cluster in Florence will be carried out.

2. The theoretical framework

The literature on spatial clustering is very developed and usually scholars have focused on two main types of advantages, which explain clustering: cost reductions and knowledge spillover. Some scholars do not agree with that explanation (Malmberg and Maskell, 2002; Boschma and Ledder, 2010; Oinas and Marchionni, 2010) and they argue that empirical evidence does not confirm the assumption of a higher degree of interaction among clustered firms compared with non clustered firms. In other words it is not clear that clusters exist because they reduce the costs of interaction and according to them the key advantage that clustering provides relates to enhanced knowledge creation among clustered firms.

Since the early stages of the literature on spatial agglomeration, the Italian variant of Marshallian clusters has been overlooked. Based on many research findings, Markusen (1996) developed three schematic alternatives to the (1) Italian Marshallian cluster: (2) the hub-and-spoke cluster, where a regional structure evolves around one or several major corporations in one related specialized sector (3) the satellite industrial platform, comprised chiefly of branch plants of absent multinational corporations - this type of cluster may either be comprised of high-tech branch plants or consist chiefly of low-wage, low-tax, publicly subsidized establishments; and (4) the state-centred cluster, a more eclectic category, where a major government tenant anchors the

regional economy (a capital city, key military or research facility, public corporation) (Markusen, 1996: 296). Markusen has the merit of having approached a new research path that could be developed in the future, in the light of many empirical cases on clusters published in recent years (Boschma and Frenken, 2011). We argue that a variant of the "hub-and-spoke" cluster model might be considered as an evolution of the Italian Marshallian cluster, in the sense that in many clusters few leading firms have emerged over time and today they dominate local production networks (Paniccia, 1998; Corò and Grandinetti, 1999; Carbonara, 2002; Belussi et al, 2003; Lombardi, 2003; Cainelli and Zoboli, 2004; Guerrieri and Pietrobelli, 2004; Iammarino and McCann, 2006; Boschma and Randelli, 2012). At the same time, during the last decade, leading firms have evolved as networks of interdependencies, even in the form of overlapping levels belonging to different networks (Bacci et al., 2010).

In such an evolutionary framework, which are the topics of this paper? The first topic is heterogeneity of firms, in the original sense of Nelson and Winter (1982) that firms largely differ in their capabilities, strategies and routines. Differences in the skills of individual organization members and firms strategies will, in turn, lead to the development of differences in routines and in firm capabilities.

On this line, Ter Wal and Boschma (2011), argue that if we are to understand cluster evolution we have to pay careful attention to the heterogeneity of firms within clusters and unfold the complex co-evolution of firms, networks and industries. It follows that firms within clusters might differ in terms of size, power and the absorptive capacity. Markusen (1996) suggested that a crucial factor determining the typology of a cluster is the asymmetries between cluster members in their roles of supporting the regional cluster and "many clusters (e.g. Detroit, Colorado Springs), due to the domination of one or a few leading companies, made the transition from a Marshallian to a hub-and spoke cluster" (Markusen, 1996: 308). There is an increasing awareness that an actor perspective is needed to understand the organisation of clusters (Boschma and Frenken, 2011) and even a few new economic geographers (Ottaviano, 2011; Baldwin and Okubo, 2006) argue that "future research should look more deeply into finer micro-heterogeneity across people and firms, shedding light on how the interactions between the two levels of heterogeneity affect the existence and the intensity of agglomeration economies" (Ottaviano, 2011: 237-238).

The second topic is the role of leading firms, with dominant network positions, in the cluster evolution. We argue that cluster evolution leans on the successful path of their firms, particularly those leading firms that over time accumulated power, knowledge

and market share, so as to become predominant and to be able to influence the evolution of the entire cluster. Leading firms act as a gatekeeper (Morrison, 2008; Giuliani, 2011) contributing to the diffusion and recombination (vertical connectivity) of external knowledge within the local milieu. Furthermore, they act also as a hub, facilitating the circulation of knowledge (horizontal connectivity) within firms of the cluster.

Beside that, the third topic is relational topology, because it can help us to understand how knowledge flows emerge in a cluster. Until recently, economic geographers overemphasized the role of geographical proximity (Boschma, 2005), whereas the effect of networks tends to be underestimated. Inter-firm interaction is nor necessarily confined within the boundaries of the cluster and being part of a cluster does not necessarily mean you benefit economically from that, unless you are well connected to the local web of knowledge (Giuliani, 2011). Furthermore, the local exchanges of knowledge, as the result of social networks, direct cooperation, labour mobility or spin-offs relations, can not be refer automatically to geographical proximity. This is not to deny that the inter-firm knowledge transfer mechanisms might be favoured by geographical proximity, but they will vary across regions, networks, industries and across time.

Economic activity has a propensity to become "organised as a web of more or less specialised industrial clusters that are becoming increasingly interlinked overtime" (Sturgeon et al., 2008: 301) and how these webs of interdependencies are coordinated essentially depends on: 1) the complexity of information exchanges, 2) the degree to which knowledge can be codified, 3) "the capabilities of actual and potential suppliers" (Gereffi et al., 2005: 85).

The consequence of this argument is the importance for agglomerations of their knowledge-base, which is founded on "sticky knowledge", that is "difficult to transfer across organisational boundaries" (Contractor et al., 2010). This can occur not only in high-tech industries, but also in the "mature" ones, as these latter are completely transformed after big changes in the techno-economic landscape. Following this perspective it becomes crucial to examine the interfirm knowledge flows and the main mechanisms through which they unfold: 1) informal interactions, 2) formal modes of cooperation, 3) labour mobility, 4) creation of spin-off firms (Cantner et al., 2010).

The aim of the paper is to evaluate if, and eventually how, firms in the network co-evolve with the leading firm, which is to answer to the question: does the "hub and spoke" organization of a cluster leaded by a dominant global firm favours the

circulation of knowledge - vertically and horizontally - within the cluster? Which are the pattern of this co-evolutionary process?

3. Different evolutionary path of SME's leather product clusters in Italy

The Italian SMEs clusters are undergoing a period of restructuring that in many cases leads to a decline in the number of firms, employees, innovation and profitability. Even in Prato, in the extensively studied case of the textile cluster, the number of firms registered fell from 7,645 in 1995 to 3,094 in 2011.

In this paper we analyse in depth the Florence cluster of leather products, and in particular pattern of co-evolution within the "hub and spoke" network of the leading firm Gucci. Within all Italian clusters specialised in a traditional sector such as leather products, we selected the Florence cluster, primarily because it has been the only cluster to grow in the period 1995-2011, secondly, it has today the highest number of firms. Gucci has been selected mainly for the size of its network, which includes more than 800 firms (25% of total firms in the cluster) with 5.000 employees (30% of the cluster). Indeed, Gucci is a real global player with strong internal capabilities and, due to a multibrand strategy, with strong and stable external connections. As a matter of fact, no other firm has a leading role as Gucci in the Florence cluster.

To compare all leather clusters, in a typical evolutionary perspective (Boschma and Frenken, 2011), we trace firm entry and exit flows over time. The data for this study was collected in may 2011 (source: Unioncamere), and it shows the total firms registered, the number of entries and exits for every quarter year in the period 1995-2011. Unfortunately the data set doesn't tell us anything about entry and exit patterns so that we don't know the characteristics of the firms that were founded as well as the characteristics of those who died.

Since the industrial clusters became a subject in the formulation of Italian industrial development policies (national law n. 317/91 and later on n. 140/99), ISTAT provided for their identification[2]. According to these criteria, the total number of industrial cluster specialized (see fig. 2) in the production of leather products (handbags, shoes, belts and other related products) was widespread in Veneto (Vicenza and Treviso),

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[2] For the criteria used to draw clusters see (Boschma and Randelli, 2012)

Emilia-Romagna (Forlì), Toscana (Pisa, Pistoia, Firenze and Arezzo), Marche (Macerata, Fermo[3] and Ascoli Piceno), Campania (Avellino) and Puglia (Bari).

Fig. 1 The trend in the Italian leather products clusters
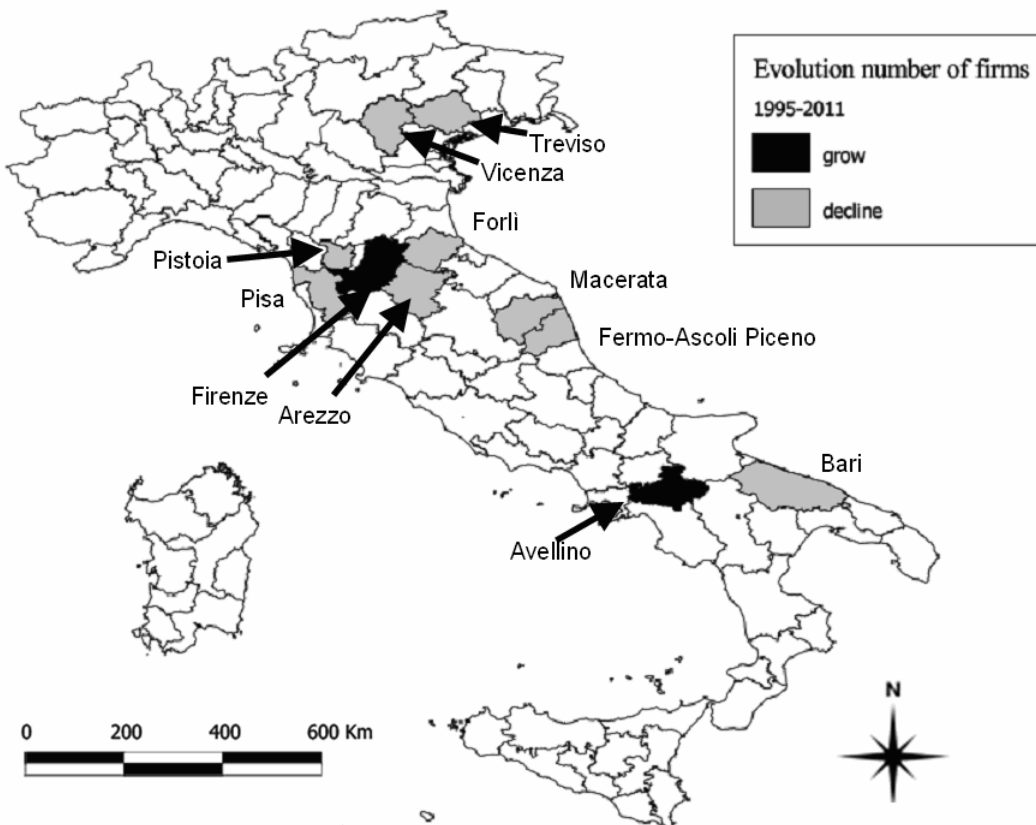
Source: Unioncamere

The results of the empirical analysis shows clearly that the majority of Italian leather clusters are undergoing a decline in terms of the number of firms. Even Fermo-Ascoli, which was in 1995 the biggest cluster, has slowly decreased losing over 600 firms in fifteen years. As entry rates are highly dependent on the number of incumbent firms in a region (Boschma and Frenken, 2011), than the Fermo-Ascoli cluster should have had the higher potentiality for growth. On the contrary, since 1995, only the clusters of Florence and Avellino (only about 500 firms as total) have increased the number of firms.

Fig. 2 Number of firms in the Italian leather products clusters (1995-2011)

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[3] As Fermo is an independent province since 2009 and was created separating a part of Ascoli Piceno province, to allow a view of the evolution in the period 1995-2011, this paper consider those two provinces as one and we will call it Fermo-Ascoli.
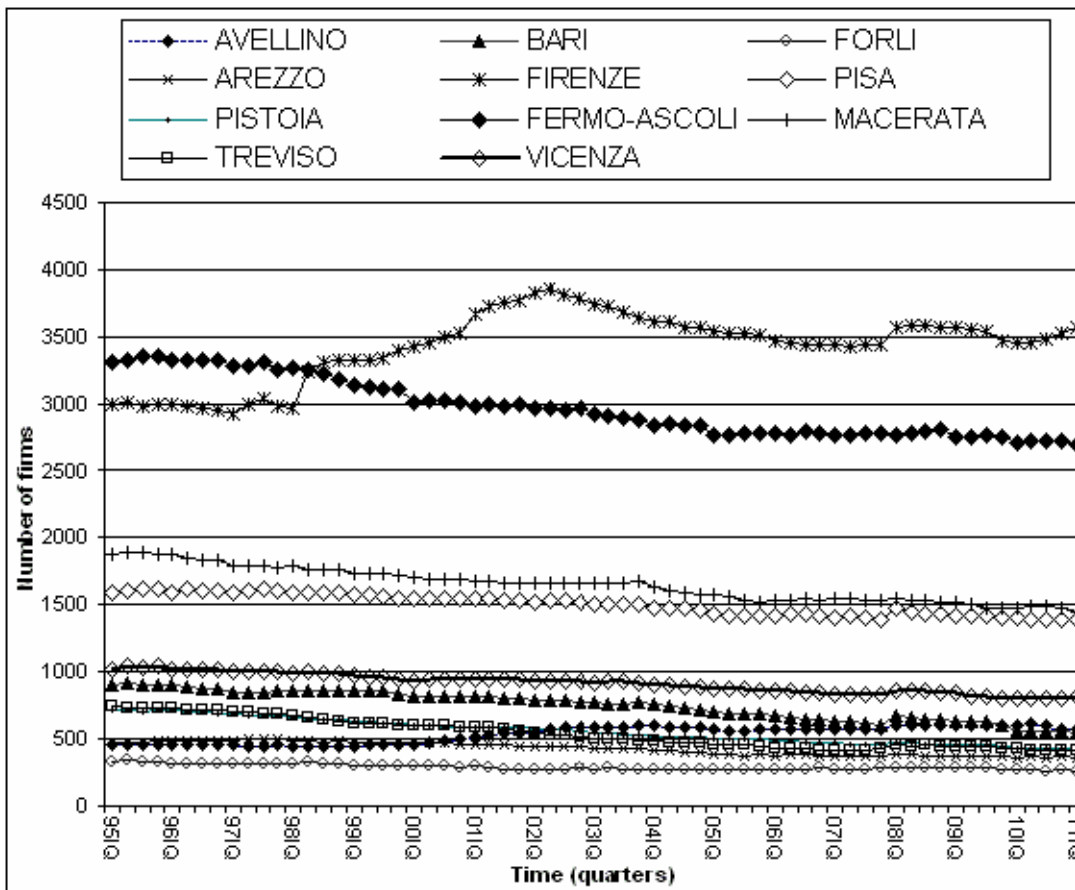
Source: Unioncamere

Within those 11 clusters only Florence (Firenze) has a global fashion leather company as Gucci located on its territory. In the cluster of Fermo-Ascoli is located the Tod's group, but with a totally different critical mass compared to Gucci[4].

Founded in Florence in 1921 by Guccio Gucci (1881–1953), the Gucci group has become today one of the world's most successful manufacturers of high-end leather goods, clothing, and other fashion products. After a long period of prosperity, the 1980s were marked by internal family disputes that brought Gucci to the brink of disaster. This dark period ended in the 1994, when Gucci lost definitively the feature of family-owned company and it started to be controlled by Investcorp, a Bahrain-based company. Six months later the Gucci group went public and had its first initial public offering on the New York and Amsterdam stock exchange. In two years the Gucci group had a massive growth and, in order differentiate their assets, they acquired other global fashion brands as Yves Saint Laurent Rive Gauche, Bottega Veneta, Boucheron, Sergio Rossi, and, in part-ownership with Stella McCartney, Alexander McQueen and Balenciaga.

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[4] In the 2010 Tod's reached a revenue peak of 806 million euro, and Gucci 4.2 billion.

In 1998, in order to enlarge their production and to strengthen their control on the supply chain, they founded two tannery firms in the cluster of Santa Croce sull'Arno (Pisa): Caravel and Bluetonic. Today, both of them they supply worldwide, including Louis Vitton, the main competitor of Gucci. From 1998, Gucci started to manufacture in the Florence cluster even for the other companies in the group. At the same time they started to sign special agreements with their local suppliers (metal accessories and final products), mainly in sole agent agreements, in order to reinforce their local links in the leather cluster of Florence. The entire sample of Gucci manager who were interviewed, emphasized the relevance of skilled SMEs specialized in the Florentine leather crafts, which are not available in other Italian leather clusters. This is the main reason why Gucci didn't change its location over time and today produce 80% of their entire final products (over 4 million items per year) in the Florence cluster. The rest is produced in Umbria and Campania. Gucci has today a network of 55 suppliers and 700 sub-suppliers. Finally, in 2010, they acquired three subcontractors (Toscoval, Pelletterie Ambra and Arte e Pelle), to apply an innovative production process (agile production[5]) and to improve their control on the sub-supplier network. In conclusion Gucci seem to be developing into a business group in order to better control the market and strategic suppliers (tannery and sub-suppliers) and to introduce an innovative production system. The bulk of the other 700 suppliers are controlled through the signing of special agreements governing the supply and the fixing of the quality standards.

Some evidence can be drawn if we compare the results with the history of the Gucci group. In 1998, due to several acquisitions of other fashion brands, Gucci decided to enlarge their manufacturing capacity and to produce in Florence final products from the other companies in the group as well. In the same year, they founded two tannery firms within the specialized cluster of Santa Croce sull'Arno (Pisa). As a matter of fact, in 1998 (I and II Quarter), a wave of new firms entered in the cluster (see fig. 3). Since the beginning of the global crisis in 2007, the Florence cluster continued to grow[6] in terms of numbers of firms, in particular in 2010 and beginning 2011. Although the correlation between cluster performance and relevance of leading firms can not be drawn with such a data set, we feel that the role of Gucci in the evolution

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[5] A different organization in the manufacturing process enabling Gucci to respond quickly to customer needs and market changes while still controlling costs and quality.
[6] In first quarter 2008 the number of firms grew due to, not as much a positive firm entry rate, but rather a number of already registered firms that turned from inactive to active.

of Florence cluster is significant. This is due to its embeddedment in the milieu of the cluster and to its dominant position in the cluster network of SME's.

Fig. 3 Entry and exit rates.
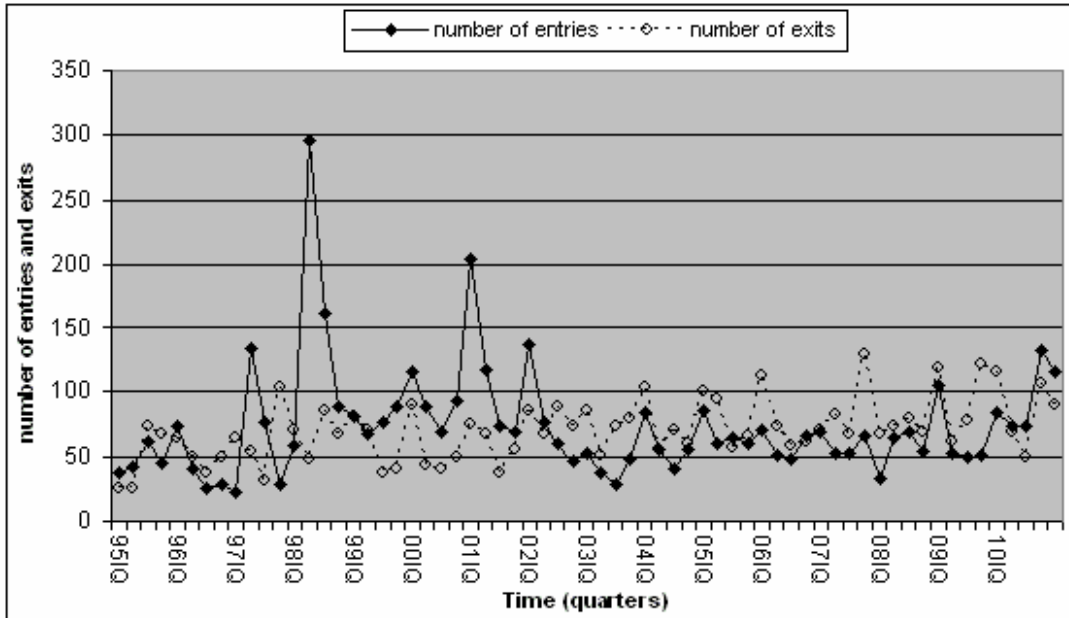
Source: Unioncamere

In any case, it is not very surprising that the number of firms increased when Gucci decided to expand and however, the data set doesn't allow to clear what drove the founding and exit rates.

In this paper we will not assess on the contribution of leading firms to the cluster growth, which is quite obvious, but if, and eventually how, other firms co-evolve interacting with them in the sense of learning and changing their routines and capabilities over time.

4. Co-evolution in the network of Gucci

The fashion and leather cluster around Florence was the focus of a study performed in 2007, whose results have been published in Bacci et al. (2010). The networks centred on some fashion leaders (Gucci, Ferragamo, Prada) have been reconstructed and the functional relationships are represented. In this study the network morphologies were also highlighted, above all their various degrees of hierarchical structure and the overlapping of some layers of suppliers belonging to different networks. It is worth mentioning that the Gucci architecture was highly concentrated and more hierarchical.

The results of the research here discussed confirm the main conclusions of the preceding work and at the same time it allows us to stress new significant insights.

The units involved in our study are first of all phase suppliers, "that do not develop, but tend to execute orders from the buyer with a certain degree of autonomy in deciding how to organise and perform the work" (Bacci et al. 2010).

In this paper we have been focussing on the intertwining of coordination, governance, and information flows. The morphology of networking can be drawn better with a qualitative analysis, which enables us to go deeper on the relationship between the leading firm and the network supplier and on pattern of co-evolution within the network. To obtain a depth knowledge of the Gucci network and assess on the co-evolution of firms within the network we have conducted 14 in-depth semi-structured interviews with managers of Gucci (in total 4 interviews) and firms in the network (10 interviews). All interviews were face to face, and conducted on the identical semi-structured questionnaire. The answers to the questionnaire were quite similar so to have a detailed overview on the organization of the network and on pattern of inter-firm relation within the network. Even if we felt that the answers on our questions were quite consistent, the sample was composed of firms belonging to the Gucci network and we missed an external perspective. For this reason, we have organized a focus group with more than 20 stakeholder participants, each one with a personal perspective on the role of Gucci within the cluster, on vertical and horizontal connections within the Gucci network, and on pattern of inter-firm exchange of knowledge.

Gucci has supplier and sub-supplier also in other clusters, although the geographical concentration of its network is very high. For instance, in about 800 Gucci suppliers, 80% of them are in the same cluster. The interrelations between the leading firm and the supplier are basically face-to-face and of course, the geographical proximity helps to build up relationships based on mutual trust and low costs of transaction, although the same interrelation model has been set up as well with suppliers located in other clusters. In the case of Gucci it means in Umbria and Campania, where they provide the rest (20%) of their supplies.

The daily networking between the leading firms and the other cluster firms is ensured by several specialised technicians, usually recruited in the local small firms. Gucci has 8 technicians specialised in tanning, 8 in accessories[7] and 15 in final leather products. At least every two days, each of them visits a group of 6 to 8 firms, which is quite stable over time. Through an intensive and regular attendance within supplier industrial plants, a mutual trust between the leading firms, represented by technicians, and the supplier is build up. The suppliers do not consider those technicians as simple supervisors, as they play an active role in: (i) allowing them to achieve the Gucci standards, (ii) carrying forward an innovation process.

As a matter of fact, the technicians, jumping from one firm to another, "pollinate" the network with smart solutions to daily process hitches. By doing so, they allow intense inter-firm knowledge spillover and the imitation of Gucci routines in manufacturing.

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[7] In this paper we study only the evolution of the leather manufacturing clusters, although it is clear that a leading firm may support also some other related sector, as in the case of Gucci, that of accessories, mainly made in brass.

Regarding knowledge spillover, some scholars (Nooteboom 2000; Boschma 2005) argue that knowledge is more likely to spill over between agents when their cognitive distance is too large, as some degree of cognitive proximity is required to ensure effective learning. On this line, the technicians act as a soft infrastructure, which reduce the distance, so as to allow vertical connections between the leading firm and the other firms of the network. At the same time, they connect stand alone firms, allowing horizontal connections among firms of the cluster, so as to avoid negative technological lock-in. Broadly speaking, they increase the connectivity among network firms and they facilitate the circulation of innovations generated by both the hub (Gucci) and any other firm of the network.

Some suppliers with a higher absorptive capacity have learned over time the features and needs of a global fashion company and this allows them to supply other companies worldwide. For instance, many of them today supply Louis Vitton, which is the main competitor of Gucci and the other global fashion firms in the leather products (Dior, Tod's, Burberry, Bulgari, Dolge e Gabbana, Fendi, Prada, Furla).

The co-evolution of cluster firms takes place as well through spinoffs of Gucci. Unfortunately, the data set we used doesn't provide any information on the background of entrant entrepreneurs, although we know from interviews that 10 out of 55 main suppliers are spinoffs of Gucci. In line with the industry life cycle (Klepper 1996; 2007; Malmberg and Maskell 2002), the spin-offs of Gucci can be considered another crucial contribution to the Florence cluster evolution. In the literature, the precise nature of spinoffs inheritance, is still an open question, although it has been demonstrated that more successful firms produce more and more successful spinoffs (Boschma and Frenken 2011). Of course those 10 Gucci spinoffs are, within the Florence cluster, very successful firms that probably, have generated other spinoffs.

Other strategic activities as R&D, marketing and finance are ruled by the leading firms, with economies of scale that a SMEs cluster of stand alone firms could never benefit. Gucci, starting from 2010, has included in the supplier's agreement a clause to provide them an indirect financial support. Every year they fix a minimum value of supply which means a minimum revenue for the supplier. Doing so the supplier has a document which may allow them to get higher bank credit. Gucci supports cluster firms, even unaffiliated ones, as they want to preserve the advantages of being located in a cluster with many specialised supplier, which enable a flexible and fast supply. In this perspective those agreements have to be conceived as a defensive strategy. As fashion items have a very short life cycle, usually no more than one year,

they need a great number of highly skilled firms, to set up a very flexible manufacturing process. In such a process proximity of firms matters, so as to enhance flexibility and supply chain quality controls.

Taking up our theoretical framework the Gucci case study allows us to argue some basic statements. First of all the techno-economic landscape and the competitive environment have triggered a strong selection process in the fashion industry, where above all leading firms with strong brands have survived, apart from local niches. Those global players have built multi-layer networks of suppliers, where strong ties at a local level are associated with long-distance weak ties (Granovetter, 1983).

This means that a reconfiguration of firms and space has happened, in this way giving rise to completely different information flows within the local leather cluster and between the local environment and the changes on a global scale.

So another general remark is worth stressing in terms of information exchanges which occur through strong ties. Particularly interfirm knowledge flows are considered crucial as it is evident from the role performed by technicians as gatekeepers in fostering knowledge spillovers from leader to suppliers, and in turn from these to other leaders, and vice versa. In this way multi-scalar processes are ongoing, so allowing local interactions to reverberate on a global scale. At the same time suppliers' competences are not only brought out, but also unceasingly enhanced.

The governance model, adopted by Gucci, is tightly linked with the network structure and interfirm knowledge flows. In fact there is a peculiar mix of three coordination mechanisms: 1) Price, inasmuch as the leading firm constantly tries to obtain lower costs from suppliers. 2) Authority, in the sense that the authority of the global player is basic in organising physical and information flows, anchored to its market strategy. 3) Trust, given the features of the organisation of knowledge exchanges within the network.

In our view the combination of these three coordination mechanisms, which respectively correspond to market, hierarchy and community, constitutes an original "organising mode" (Adler 2001), that allows the leading firm to face the challenges generated by multi-dimensional processes on a global scale. In this scenario network structure and governance model co-evolve by adapting themselves to an ever changing competitive environment.

5. Conclusions

In this paper, we have approached the evolution of some Italian SMEs clusters facing the challenges generated by changes in the techno-economic landscape and in the competitive environment. The reconfiguration of space and the connected need for a reconceptualization of firms have induced us to analyze more in depth morphologies of the topological relationships between leading firms and their suppliers. To this regard we have focussed on the intertwining of coordination, governance, and information flows. Indeed the evolution of SMEs clusters depend on the capabilities of cluster firms to connect local resources, accumulated over time, to global networks. Few leading firms have emerged over time, acting as "gatekeepers" of the cluster. Due to the critical mass they reach, those global firms are able to affect hundreds of SMEs cluster firms.

Furthermore, the empirical study, carried out on the Italian SMEs leather clusters, suggests that among all clusters, only the Florence cluster had an asymmetric path in the period 1995-2011, compare to a general trend of decline in the number of firms. The Florence fashion leather cluster, lead by Gucci, continue to have a positive rate of new firms, even faced with the global crisis. The analysis in depth of Gucci network has been drawn on the results of 14 in-depth interviews with managers and network firms. The results of interviews have been tested during a following focus group with 20 stakeholder. The conclusions of our inquiry can be synthesised by highlighting three main factors influencing the evolution of the investigated cluster are : 1) organization of information flows, first of all through the mixing of bottom-up and top-down processes. In this view, the role performed by several specialised technicians within the Gucci network becomes crucial: they are usually recruited in the local small firms and "jump" from one firm to another in order to "pollinate" the network with smart solutions to daily process hitches. These interrelations are basically face-to-face and the geographical proximity matters, so as to enhance connectivity and an intense knowledge spillover. The technicians also allow to the leading firm to establish trustful linkages with suppliers and make serious efforts with the aim of creating stable networks of selected partners so to foster the learning process in the network. 2) There is a peculiar mode of governance, where three coordination mechanisms act, i.e. price, authority, and trust, in so allowing a "global" harmonization of conflicting requirements. At the same time systemic functions, such as R&D, marketing and

finance are managed by the business group. 3) The renewal of the cluster, inasmuch as the leading firm (Gucci) has fuelled the creation of 10 spinoffs. The function of this mechanism is quite clear in the industry life cycle although the precise nature of spinoffs inheritance, is still an open question. Further researches on spinoffs inheritance are needed, and of course data sets able to trace the genealogy of every firm.

Our study might have policy implications. The findings discussed in the paper suggest that the geographical proximity itself doesn't eliminate the cognitive distance among firms, which can be a barrier to the cluster evolution. Within the Gucci network the key feature in developing the cognitive proximity are the specialised technicians, which they act as soft infrastructure, fostering the mutual trust and the circulation of knowledge. Policymakers have a tendency to promote hard infrastructure or supporting firms with funding projects, but this paper would suggest that smart innovation policies should try to develop soft infrastructure (Benner,2003), able to improve connectivity among cluster firm.

Due to the limits of this empirical study, there are many questions that future research should taken up. We briefly mention some of them. In order to give a wider account of the benefits of leading firms within SMEs clusters, it is necessary to compare other evolutionary paths because the generalization of the results of this study are bounded by the specificities of the Gucci network within Florence cluster. It goes without saying that this requires high-quality data at the regional level.

Another challenge is to hone the differences in the evolutionary morphology of leading firms, particularly by focusing on general elements such as: 1) the potential overlapping among multiple networks, 2) the various degree of embedding of networks within local clusters, 3) the different evolution of knowledge and information flows, and the ensuing models of governance.

References

Adler, P.S. (2001). Market, Hierarchy, and Trust: The Knowledge Economy and the Future of Capitalism. Organization Science, 12 (2): 215-234.

Arikan, A.T. & Schilling M.A. (2011). Structure and Governance in Industrial Districts: Implications for Competitive Advantage. Journal of management Studies, 48 (4): 772-803.

Bacci, L., Lombardi, M., Labory, S. (2010), The evolution of external linkages and relational density in the Tuscan leather industry, in Belussi, F., Sammarra, A. (eds), Business Networks in Clusters and Industrial Districts, Routledge, pp. 146-171.

Baldwin, R. & Okubo, T. (2006). Heterogeneous firms, agglomeration and economic geography: spatial selection and sorting. Journal of Economic Geography, 6: 323–346.

Becattini, G. (1979), Dal "settore" industriale al "distretto" industriale. Alcune considerazioni sull'unità di indagine dell'economia industriale, Rivista di Economia e Politica Industriale, 5: 7-21.

Belussi, F., Gottardi G. & Rullani E. (eds.) (2003), The technological evolution of industrial districts. Kluwer: Boston.

Benner, C. (2003). Learning communication in a learning region: the soft infrastructure of cross firm learning network in Silicon Valley, Environment and Planning A, 35, 10: 1809-1830.

Boschma R. (2005). Proximity and innovation: a critical assessment, Regional Studies, 39, 1: 61-74.

Boschma, R. A. & Frenken, K. (2006). Why is economic geography not an evolutionary science? Towards an evolutionary economic geography, Journal of Economic Geography, 6: 273–302.

Boschma, R. A. & Frenken, K. (2011). The emerging empirics of evolutionary economic geography, Journal of Economic Geography, 11: 295-307.

Boschma, R. A. & Ledder F. (2010). The evolution of the banking cluster in Amsterdam, 1850-1993: a survival analysis, in Fornhal D., Henn S. and Menzel M.P. (eds), Emerging clusters. Theoretical, Empirical and Political Perspective on the Initial Stage of Cluster Evolution, Edward Elgar: Cheltenham, 191-213

Boschma, R. A. & Martin, R. (2007). Constructing an evolutionary economic geography, Journal of Economic Geography, 7: 537–548.

Boschma, R. A. & Martin, R. (eds) (2010). The Handbook of Evolutionary Economic Geography, Edward Elgar: Cheltenham.

Boschma, R. A. & Randelli, F. (2012). Dynamics of industrial districts and business groups: the case of the Marche region, European Planning Studies, ifirst, doi: 10.1080/09654313.2012.665040.

Cainelli, G. & Zoboli, R. (Eds) (2004). The Evolution of Industrial Districts. Changing Governance, Innovation and Internationalization of Local Capitalism in Italy (Heidelberg, Physica).

Carbonara, N. (2002). New models of inter-firm networks within industrial districts. Entreprenurship and regional development, 14: 229-246.

Contractor, F.J., Kumar, V., Kundu, S.K., Pdersen, T. (2010). Reconceptualising the Firm in a World of Oustourcing and Offshoring: The Organizational and Geographical Relocation of High-Value Company Functions. Journal of Management Studies, 47 (8):1418-1433.

Corò, G. & Grandinetti, R. (1999). Evolutionary patterns of Italian industrial districts. Human Systems Management, 18(2): 117–129.

Garofoli G. (1981). Lo sviluppo delle aree periferiche nell'economia italiana degli anni Settanta. L'industria, 2 (3): 391-404.

Gereffi, G., Humphrey, J. & Sturgeon, T. (2005). The governance of global value chains. Review of International Political Economy, 12: 78-104.

Giuliani E. (2011). Role of Technological Gatekeepers in the Growth of Industrial Clusters: Evidence from Chile. Regional Studies, 45, 10: 1329-1348.

Granovetter, M. (1983). The Strength of Weak Tie. Sociological Theory, I: 201-233.

Guerrieri P. & Pietrobelli C. (2004). Industrial districts' evolution and technological regimes: Italy and Taiwan. Technovation, 24: 899–914

Iammarino, S. & McCann, P. (2006). The structure and evolution of industrial clusters. Transactions, technology and knowledge spillovers. Research Policy, 35 (7):1018-1036.

Klepper, S. (1996). Entry, exit, growth, and innovation over the product life cycle. American Economic Review, 86 (3): 562–583.

Klepper, S. (2007). Disagreements, spinoffs and the evolution on Detroit as the capital of the U.S. automobile industry. Management Science, 53 (4): 616-631.

Lombardi, M. (2003). The Evolution of Local Production Systems: the emergence of the "invisible mind" and the evolutionary pressures towards more visible "minds". Research Policy, 32: 1443-1462.

Malmberg, A. & Maskell, P. (2002). The elusive concept of localization economies: towards a knowledge-based theory of spatial clustering. Environment and Planning A, 34: 429-449.

Markusen, A. (1996). Sticky places in slippery space: a typology of industrial districts. Economic Geography, 72 (3): 293–313.

Marshall, A. (1896). Principles of Economics, Macmillan: London.

Martin, R. (2010). Rethinking regional path dependence: beyond "lock in" to evolution. Economic Geography, 86: 1-27.

Martin, R. & Sunley, P. (2006). Path dependence and regional economic evolution. Journal of Economic Geography, 6: 395–437.

Morrison A. (2008). Gatekeepers of knowledge within industrial districts: who they are, how do they interact?. Regional Studies, 42, 6: 817-835.

Nelson R. R. & Winter S. G. (1982). An Evolutionary Theory of Economic Change, Belknap/Harvard University Press, Cambridge, MA.

Nooteboom B. (2000). Learning by interaction: absorptive capacity, cognitive distance and governance. Journal of Management and Governance, 4: 69–92.

Oinas, P. & Marchionni, C. (2010). How to make progress in theories of spatial clustering: a case study of Malmberg and Maskell's emerging theory. Environment and Planning A, 42: 805-820.

Ottaviano. G. (2011). "New" new economic geography: firm heterogeneity and agglomeration economies. Journal of Economic Geography, 11 (2): 231-240.

Paniccia, I. (1998). One, a hundred, thousands of industrial districts. Organizational variety in local networks of small and medium-sized enterprises. Organization Studies 19(4): 667-699.

Porter, M. (1990). The Competitive Advantage of Nations, Macmillan: London.

Sturgeon, T. (2008). From Commodity Chains to Value Chains: interdisciplinary theory building in an age of globalization. MIT-Industrial Performance Centre working paper.

Ter Wal, L.J. & Boschma, R.A. (2011). Co-evolution of firms, industries and networks in space. Regional Studies, doi 10.1080/00343400802662658

Tinacci M. (1982). Economia e geografia: dall'analisi delle economie di agglomerazione alla teoria dello sviluppo regionale. Rivista Geografica Italiana, 89: 303 – 331.