

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

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**Abstract.** Clusters that emerged in the past have changed over time, 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 agglomeration, than the “Porter diamond” and the vast literature focused on the advantage of clustering cannot be helpful. Many evolutionary studies on cluster have been based on the idea of cluster life cycle. In the cluster life cycle model, the pattern of spatial clustering coevolves with three entities: with the firm at the micro-level, with the industry at the macro-level, and with the network that describes the patterns of interaction among firms of the industry. 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. 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 might 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

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".

Even such a sophisticated modelling approach could not explain the large variety of clusters. 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, than the "Porter diamond" and the vast literature focused on the advantage of clustering cannot be helpful. In recent years, many economic geographers 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. A decade of both theoretical and empirical studies has provided new insights on clustering and agglomeration externalities (Boschma and Frenken, 2011). In section 2 a review of this literature will be provided in order to shape the theoretical framework of this paper.

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. On this perspective, the evolutionary path taken by a cluster is unpredictable and of course a universal explicative model doesn't exist. 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). Further, the evolution is not a linear process and periods of stability can follow rapid changes and transitions.

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 advantage, 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 evidences 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 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 the local production network (Paniccia, 1998; Corò and Grandinetti, 1999; Belussi et al, 2003; Cainelli and Zoboli, 2004; Guerrieri and Pietrobelli, 2004; Iammarino and McCann, 2006; Boschma and Randelli, 2012).

Anyway, the vast literature on spatial clustering doesn't help us to understand how clusters evolve over time and in particular, how few leading firms take up dominant cluster position: an evolutionary perspective is needed. Many evolutionary studies on clusters have been based on life cycle approach, related to the technology life cycle model of Utterback and Abernathy's (1975), to the industry life cycle of Klepper (1996) and finally to the cluster life cycle of Menzel and Fornahl (2010).

In a life cycle perspective a cluster evolves over time in four distinct phases: emergence or birth, growth, maturity and then a crisis that leads to a decline or a renewal. Malmberg and Maskell (2002) have summarized the typical development of a cluster: a single enterprise is located in a region (usually the place of residence of the entrepreneur); as the enterprise grows, spinoffs and imitators are founded in the local milieu (phase of emergence or birth); as Marshallian economies set in, the cluster move on like a snowball and it grows and attracts more firms, capital and specialized labour; employment rises and local institutions develop to meet the needs of the growing cluster; and a distinct local industry culture develops (phase of growth and then maturity of the cluster); finally, new technological and market developments require the cluster to rapidly, often radically, restructure. At this point the cluster

either reinvents itself, triggering a new growth phase; or it stagnates, eventually losing its competitive advantage.

Although such evolutionary paths may differ regionally, with respect to the first three phases, most existing clusters appear to follow a similar cycle of birth, growth and stability. Less relevance in the model has been paid to the fact that not all firms within a cluster necessarily experience the life cycle synchronously (Bergman, 2008) and the asymmetric distribution of power, knowledge and marketing among firms might differ over time so as to have within the same specialised clusters, and even within the same cluster, a plethora of different paths. In other words some firms disappear, others take up dominant positions and not necessarily the later entrant firms will have the same path: it is also possible that the firms that eventually dominate the industry may not come from the earliest cohort of entrants, although some empirical studies seem to confirm this hypothesis (Boschma and Ledder, 2010). Furthermore, the cluster life cycle assumes that a negative balance between firm entrants and exits appears in the fourth phase that of decline. According to us, it does not follow that, although the local industry may ultimately begin to shrink in terms of the number of firms, it has stopped evolving. Indeed, there are numerous examples of mature or shrinking clusters in which the firms that survive are precisely those that are the more innovative and competitive (Martin, 2010).

Even Klepper (1996, p.581) recognizes that “the starkness of the model precludes any departure from his evolutionary pattern”. According to him this can be remedied by allowing for random events that alter the relative standing of incumbents and potential entrant. We point out that doing so the model will be misread and it will lose its attractiveness, which is largely due to its simple and clear explanation of industrial dynamics of clustering.

In such a theoretical 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. Stressing the concept of heterogeneity of firms, Ferrucci and Varaldo (1997) suggest that the appropriate unit of analysis of a cluster is the firm and the strategies followed by cluster firms are the key variables in an analysis of cluster evolution. This doesn't mean that the cluster as a system doesn't matter, on the contrary the cluster promotes a favourable

environment stimulating the formation and development of the firm (Cainelli, 2008) and in order to be an innovative firm, it matters where one is located.

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 coevolution 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. The cluster life cycle model put the co-evolution of firms and networks within the wider evolution of the industry as a whole. In the cluster life cycle model, the pattern of spatial clustering in an industry coevolves with three entities: with the firm at the micro-level, with the industry at the macro-level, and with the network that describes the patterns of interaction among firms of the industry (Ter Wal and Boschma, 2011). Until recently, economic geographers overemphasized the role of geographical proximity, whereas the effect of networks tends to be underestimated. Inter-firm interaction is not 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, industries and across time.

In conclusion, we argue that if we are to understand cluster evolution we have to pay careful attention to the heterogeneity of firms, and 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.

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 led by a dominant global firm favours the circulation of knowledge - vertically and horizontally - within the cluster?

### 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 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.

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<sup>1</sup>. 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), Emilia-Romagna (Forlì), Toscana (Pisa, Pistoia, Firenze and Arezzo), Marche (Macerata, Fermo<sup>2</sup> and Ascoli Piceno), Campania (Avellino) and Puglia (Bari).

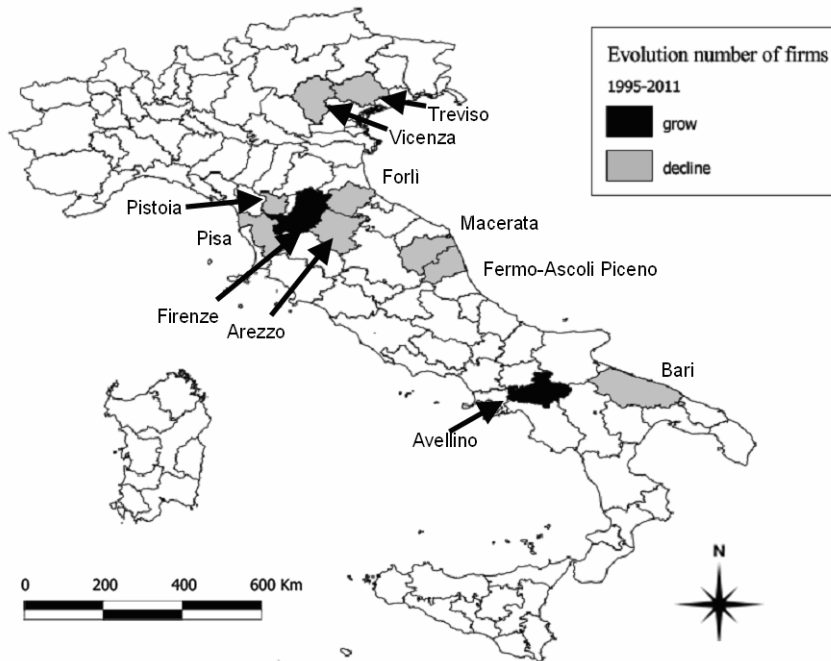
Figure 1 The clusters specialized in the production of leather products.

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<sup>1</sup> For the criteria used to draw clusters see (Boschma and Randelli, 2012)

<sup>2</sup> 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.

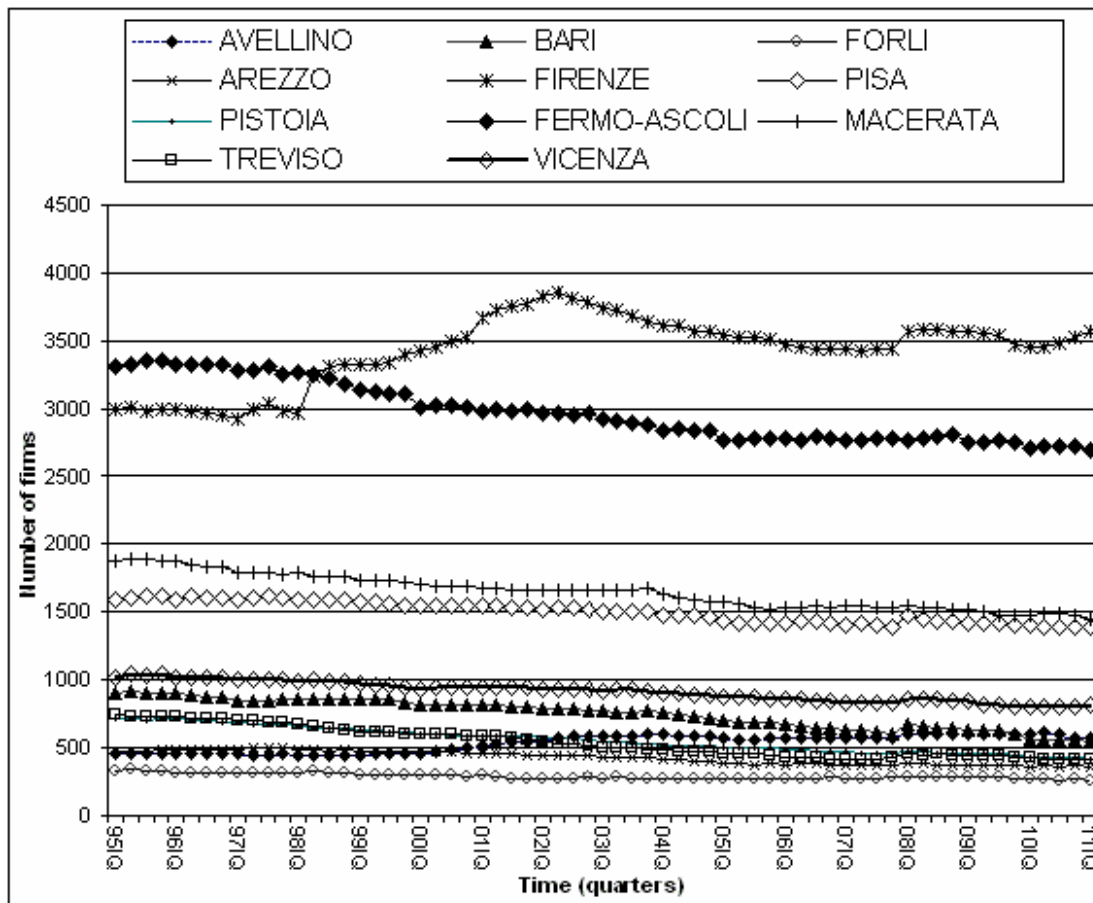




Source: Unioncamere

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.

Figure 2 Growth and decline of SMEs Italian leather manufacturing clusters 1995-2011 (number of firms)



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<sup>3</sup>.

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

<sup>3</sup> In the 2010 Tod's reached a revenue peak of 806 million euro, and Gucci 4.2 billion.

Veneta, Boucheron, Sergio Rossi, and, in part-ownership with Stella McCartney, Alexander McQueen and Balenciaga.

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<sup>4</sup>) 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.

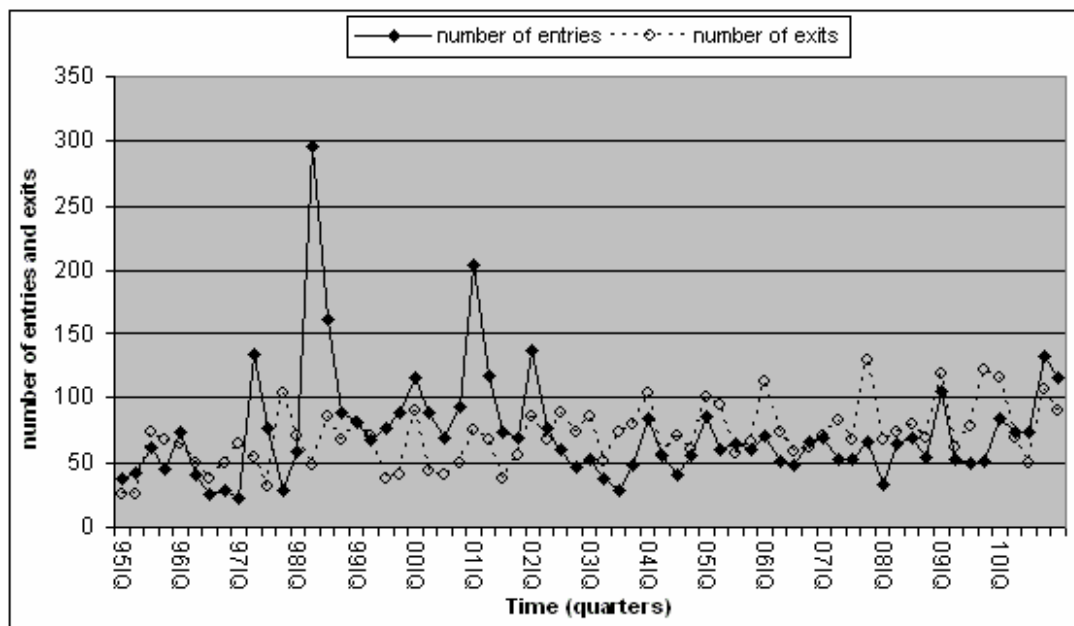
Some evidence can be drawn if we compare the results with the history of the Gucci group. In 1998, due to several acquisitions of other fashion brands, Gucci decided to enlarge their manufacturing capacity and to produce in Florence final products from the other companies in the group as well. In the 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). In line with the industry life cycle, the interviews confirm the relevance of spinoffs within the cluster not only from Gucci. Furthermore, since the beginning of the global

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<sup>4</sup> A different organization in the manufacturing process enabling Gucci to respond quickly to customer needs and market changes while still controlling costs and quality.

crisis in 2007, the Florence cluster continued to grow<sup>5</sup> 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 of Florence cluster is significant. This is due to its embeddedness in the milieu of the cluster and to its dominant position in the cluster network of SME's.

Figure 3 Number of entries and exits in the Florence cluster 1995-2011



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. Due to the interviews and the focus group we have been able to look at the network structure and assess on the circulation of knowledge within the cluster.

<sup>5</sup> 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.

#### 4. Co-evolution in the network of Gucci

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<sup>6</sup> 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.

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

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<sup>6</sup> 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.

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, Dolce 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, those spin-offs 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.

## 5. Conclusions

In this paper, we approached the study of cluster evolution with a focus on Italian SMEs clusters. Besides that, we argue that if we are to understand cluster evolution we have to pay careful attention to the heterogeneity of firms. As a matter of facts, 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.

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 Gucci network has a particular structure and the key feature is the role of several specialised technicians, usually recruited in the local small firms, that jumping from one firm to another “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. The results of our interviews also suggest that to be in the leader network is not sufficient and the co-evolution depends also on the different capacity of cluster firms.

The successful path of 10 Gucci spinoffs, point out the role of leading firm in the evolution of the cluster. The spinoffs mechanism are 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 investigate in depth other hub-and-spoke cluster, so as to reveal differences and/or regularities in organisation. The Gucci group is particularly embedded in the milieu of the cluster, with positive effects in terms of innovation, knowledge spillover and financial support to local firms. Other global firms, even bigger in shape, could be less embedded so do not drive cluster evolution<sup>7</sup>. Furthermore, the Gucci group produces within the cluster about 80% of its total items (more than 4 million per year) although other leading firms networks are more geographically dispersed.

To conclude, although further research is necessary, the advantages of networking, particularly within SMEs cluster, seems to be clear. The main problem within SMEs clusters is that the massive disintegration of stand alone firms doesn't allow them to reach a critical mass in terms of marketing, finance and R&D. In this paper we have shown as a leading firm, due to a dominant position and a "hub-and-spoke" organization, may increase the connectivity within cluster firms, so as to reduce cluster uncertainty and avoiding negative lock-in. The future challenge of SMEs clusters seems to be networking, not necessarily around a "hub", in order to: (i) share the same innovation processes so as to foster knowledge spillover, (ii) offer on a global market a full range of specialised output within a single brand, (iii) reach a critical mass in terms of financial power.

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<sup>7</sup> Giuliani (2011) call them "external stars" those firms with high external openness, but with limited knowledge links with other cluster firms.



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