INDUSTRIAL DISTRICTS IN ITALY
CAUGHT BETWEEN LOCAL TRADITION
AND GLOBAL COMPETITION

by Fabio Antoldi
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Abstract
Industrial districts are one of the pillars of the Italian manufacturing system and economy. They are complex bodies that can be examined from different standpoints, such as the economic dimension (connoted with a particular form of inter-firm work organisation, and with external economies linked to the territory and to the agglomeration), the socio-cultural dimension (characterised by the effects of the presence of strong social capital and of the operation of particular mechanisms of learning and production of knowledge) and, lastly, the more strictly corporate dimension (with reference to the forms of entrepreneurship and the competitive strategies adopted by the population of companies). After explaining these dimensions, the paper describes how they are evolving in the light of the profound changes that have occurred in the world economy and markets.

1. Three different perspectives for analysis of a complex situation

In Italy, the industrial districts situation has been analysed in depth only since the middle of the nineteen sixties, essentially in order to explain the phenomena of widespread industrialisation that had developed in the previous decade in the northern and central regions of the country. Even then, in many industrial centres, certain recurrent features were almost always present: the development of a productive system within a restricted territorial context, a strong sectorial vocation related to this production system, the presence of a population of highly specialised small and medium enterprises (SMEs), the existence of a strong culture and sense of identity among the local community, a network of institutions in the territory involved in the relational dynamics of the companies, and, more generally, a substantial interweaving of social and business life in the territory.

Even today, despite the significant changes that are under way, these remain the principal characteristics of the Italian district system. Indeed, although they differ considerably in terms of history and evolution, the numerous Italian industrial districts, as we know them today, mainly stem from an artisan tradition that is often centuries old. This began to become an industrial situation only towards the end of the nineteen sixties, when the Ford-Taylor model of large vertically integrated companies showed its first signs of crisis.

Partly as a result of the evolution of this environmental context, the Italian industrial system was affected in that period by a process of gradual de-verticalization of large companies. This prompted...
further development of widespread small-scale entrepreneurship and thus reinforced the local SME systems, which already existed.

This process had a powerful impact on traditional Italian products that were highly suited to internationalisation, namely the so-called "made in Italy" sectors - textiles and clothing, footwear, cowhide and other leather goods, fashion accessories, jewellery, furnishings and related sectors - to which that of precision mechanics should be added. These are the sectors on which the model of national productive specialisation is still based today. In these sectors Italy soon achieved an important position on international markets, in view of its ability to assert its specialisation and excellence.

In these sectors Italian industry, with its numerous SMEs, easily achieved aggregated production volumes capable of supporting the widely-used district organisational model, with the external economies of the district offsetting the lack of internal economies of scale among the small firms of which it was composed.

In Italy today the districts represent an original form of agglomeration of firms, characterised by high industrial specialisation, that is to say by a special vocation for the production of one sector or several related sectors.

In their traditional form, these are manufacturing systems, highly localised, made up of numerous artisan and industrial companies, mainly of small and very small dimensions, linked by intense relationships both of the vertical type, in a chain of production, and of the horizontal type. However, they have one peculiarity that distinguishes them from similar situations in other countries, namely a substantial historical and socio-cultural identity, which acts as the glue between the firms, the social players and the territory.

At present the manufacturing system in Italy is still mainly built around these local production systems, which are estimated to number between 150 and 200 units (according to different analyses), mainly located in the northern and central regions of the country.

According to figures from the Istat 2001 industrial census, territories containing industrial districts generated an overall added value (including agriculture and services) equal to 27% of the national figure. If however one considers only their impact on the industrial added value of the country, the figure rises to 38%. Moreover, taken alone, they represent about 44% of Italian manufacturing exports, with peaks of 67% in the textiles-clothing sector and cowhide-leather-goods-footwear sector, 60% of products such as tiles and ornamental stone, and 52% in the sector of machines and mechanical devices. There is no doubt, therefore, that they represent one of the fundamental pillars of the Italian system.

However, their importance for the country ranges far beyond purely economic considerations. Indeed, the situation of the productive districts in Italy is a matter for complex analysis, bringing together several important dimensions.

More precisely, beyond the economic dimension in the strict sense - which relates to the production model adopted by companies in the territory - it is of fundamental importance, in order to understand the districts, that their social dimension should be analysed too, taking account of the relational dynamics and shared values of the community in the territory where the district has developed. Finally, there exists a more strictly corporate dimension of the district phenomenon,
one that concerns the profile of companies and entrepreneurs who operate in the district and their strategic, individual and collective behaviour.

For this reason, paragraphs 2 to 4 below offer an analysis of the industrial district phenomenon as seen from three different but complementary perspectives:

− the economic perspective, which treats the districts as a special form of organisation of productive activities, characterised by the presence of economies of agglomeration that are external to the individual firms, but internal to the local specialised system.

− the socio-cultural perspective, which focuses on the social structure underlying the productive structure, in which social capital and mechanisms of generation of knowledge in the district have a determining role;

− the corporate perspective, which analyses the entrepreneurial dynamics of the district, directly linked with the strategic and organisational profiles of the population of companies.

Lastly, the final paragraph of this paper will briefly consider the major changes that are affecting the districts, caused by the crisis of models of development based on closed territorial systems. These now seem to be seeking new forms of entrepreneurial balance and systems in which the main drivers are the internationalisation of companies and broadening the set of corporate and district skills.

2. Industrial districts seen from an economic perspective

In order to understand the phenomenon of Italian industrial districts fully, we must first recall two fundamental concepts of industrial economics: that of **economies of agglomeration**, which relates to the rationale of spatial distribution of business activities in the territory, and that of **economies of transaction**, related to the rationale, and the related advantages and disadvantages, of the various forms of sharing and specialisation of labour between the economic players of the market.

These concepts – which will now be briefly explained – belong to the normal «toolkit» of economic analysis and have been usefully applied to define the original characteristics of the district phenomenon.

2.1. **Economies of agglomeration, the territory and the industrial districts**

As a necessary first step to understand the situation of the districts, we must recall that as a rule economic systems display an obvious lack of homogeneity in the distribution of economic activity in the territory, made manifest by the presence - in regions, nations and continents - of special agglomerations of activity corresponding with centres that are almost never casual [Richardson 1969]. This polarisation around precise territorial nodes may be due, depending on the situation, to natural, urban, transport, historical, anthropological and cultural factors and may be accompanied by the development of economies of agglomeration, that is to say the emergence of special advantages and benefits for local players, arising from proximity between companies.

There therefore exist - practically everywhere in the industrialised world - territorial areas characterised by the presence of concentrations of companies, often operating in the same sector or in a few inter-related sectors, which derive advantages from their simultaneous location in that...
place. These local agglomerations have important implications both at the micro level, for the corporate strategy of the individual economic players, and at the macro level, for the territorial economic policy. In fact they produce substantial effects, both in terms of the competitive advantage of individual companies, and of government of the overall development of the territory where they are.

In the context of these agglomerations, the so-called local productive systems are especially important. These are geographical agglomerations of companies (among which the SMEs are often prevalent) that, apart from being specialised in a single sector or a few related ones, are also linked by significant relationships of the vertical and horizontal type.

In particular, because there are intense relationships between the companies, because they give rise to specialised local networks of sub-suppliers, because of their high rate of creation new enterprises, because of their special form of labour sharing between companies, the local productive systems stand out when compared with those that may be simply called territories of productive specialisation, where, on the contrary, the concentration of companies is not accompanied by real interaction between the players [Garofoli 1992].

The situation of local productive systems is comparable in many countries and assumes widely varying forms, to which economic literature has ascribed - though not always consistently - generic terms, such as clusters, industrial or regional, or more restricted ones, such as regional industrial systems, hub-and-spoke systems, regional systems for innovation and, of course, districts [Bellandi 2003; Markusen 1996; Garofoli 1992; Cortesi Alberti and Salvato 2004].

This is obviously not the right moment to analyse the different terms used by scholars and their various meanings. We should however note that in reality there may be differences, and even substantial ones, between these different forms, in terms of: the profile of the players involved in the productive system, inasmuch as some definitions include only the firms, while others also consider non-economic territorial players; the size of the companies involved, in that some are made up only of small and medium enterprises, while others treat large companies as the absolute protagonists; the extent of the territory in question, which may range from a few square kilometres to entire regions or states; lastly, the nature of the relationships between players in the system in question, especially between companies. Such differences are no minor issue, because the different combinations of the constituent elements of a local productive system (the companies, the territory, the sector) may produce quite different final results.

For example, if one adopts the industry as the rationale of analysis one will describe one situation, while on the other hand adopting the territory as the rationale will give rise to a different description.

From this point of view, we should point out that industrial districts, at least in their traditional (or canonical) meaning, are production systems in which the territorial factor - to be understood both as a restricted geographical area and as a civil community that shares a history and a culture – is absolutely vital, both in identifying their borders and in interpreting their structure and internal dynamics.

This characteristic substantially distinguishes the districts from, for example, the industrial clusters described by Michael Porter [1998], whose borders and structure seem on the other hand
to favour an analysis based mainly on the local companies belonging to the sector or the productive chain, giving less importance to the territorial component, which may thus come to include whole regions or countries.

In the case of the districts, the economies of agglomeration of the system - economies that are external to individual companies, but internal to the grouping to which they belong - thus seem to be linked primarily to the territory, a territory that is historically and geographically well defined. Such economies depend, for example, on companies having access to local institutions that carry out research, on the local development of a specialised and highly qualified workforce, on the proximity of auxiliary industries, on access to local markets for supplies of raw materials, semi-finished goods, specialised and exclusive services, but they also depend to a great extent on intangible and social factors - such as relational capital, know-how and the reputation of the district - which cannot be replicated beyond the physical and social confines of the district. The district tends to bolster these economies of agglomeration, giving rise to collective institutions within itself that are often self-organised, and strengthening the centres of production of knowledge on which the contextual know-how of the local system is based.

A major contribution to the identification and analysis of this kind of local productive system was made by the English economist Alfred Marshall (1842-1924), who is universally credited with having been the first to identify and define the existence of industrial districts. For this reason, they are also called "Marshallian districts". It is to him that we owe the concept of external district economies, as opposed to internal economies of companies, which are derived from their size. These latter economies are typically the advantages due to increasing the scale of production [Marshall 1920], while external economies are those advantages that an individual firm gains from belonging to a larger organisation of which it is a member.

Marshall regards the industrial district is an efficient way of organising production, an alternative to that of the large company, because it allows companies to remain small without losing the advantages arising from labour sharing and from productive specialisation. Indeed, if the production process can be broken down into distinct stages that may be carried out by different players, labour sharing in the district can involve many small companies that are legally and economically independent. Each of these specialises of its own accord in a distinct stage of processing, using specialised machinery and skills, which are made available to other companies operating in the territory.

The overall efficiency of such a system is supported by the external economies of the district, which may be classified in three main classes [Bellandi 2003]:

− external economies of specialisation, which are derived from the fact that even small companies can amortise their investments better, by making full use of the resources provided by the system, from the constant presence of reserves of specialised productive capacity in the local system, to be used as needed, and from the fact that the large aggregated volumes of production of the district justify substantial investments and make them worthwhile, in terms of machinery,

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1 Marshall coined and used the term industrial district in the second half of the 19th century with reference to the textile industries of southern Lancashire and to the steel mills of Sheffield.
infrastructure, and innovation serving the whole system;

− external economies of learning, which characterise the local labour market and arise from the presence in the territory of advanced professional skills generated by basic training, training at work, and informal training;

− external economies of creativity and innovation, which consist of the systematic manifestation of widespread innovative skills, arising from the proximity of the players, from the range of their experience, from the sharing of responsibilities within the sector, from advanced technical-scientific training, and from the continual incentive to imitate, which leads to highly localised processes of incremental innovation.

Marshall districts are made up of numerous companies, mainly of small dimensions, usually run on a family basis and with the direct participation of the entrepreneur in the productive work. Under the inter-company model of labour organisation, an original system of relationships emerges between these firms. This system combines habits of co-operation - mainly vertical between complementary companies in the chain – and of market competition, with a perennial quest for systemic integration that is not just difficult, but also leads the district towards a balance that is structurally unstable.

It should be stressed that this co-operation is hardly ever consciously sought, desired and planned by individual entrepreneurs. It is more a case of necessary collaboration, induced by proximity, an almost inevitable result of the overall way in which the district functions. In many cases the co-operation is informal, not strategic, subject to changes of arrangements and not without an element of conflict between the players. And yet the history of Italian districts shows that it works.

This original mix of co-operation and competition between district firms has numerous advantages. Firstly, it keeps the productive system extremely flexible, inasmuch as local networks of SMEs form and dissolve according to production needs. It also stimulates the system to seek ever cheaper production solutions on a collective basis, it helps to lower the production costs of the system, it prompts continual innovation, also through processes of reciprocal imitation, it permits efficient co-ordination of strictly complementary activities, and, lastly, it generates major external economies regarding all activities that can be shared, being of common interest.

According to Marshall, this ability to co-operate is based on the circulation of knowledge and information, but above all on the existence of a special "industrial atmosphere" in the territory, which helps to generate a climate of trust among the players. This has positive effects in the field of economic relationships too.

This trust stems from the fact that transactions in a restricted territory are conducted between players who know each other (or who can easily obtain information about each other) and who tend to consolidate their co-operation, prompting informal but continuous networks of relationships. In this way local networks form within the district, composed of SMEs that are juridically and economically independent, among which the inter-firm co-operation model finds concrete expression.

The Italian industrial districts are largely comparable with the form of the Marshallian district, given that the economies of agglomeration found within them depend on the firms belonging to a
territory that has a well-defined physical, historical, social and cultural connotation. The territory is traditionally restricted, varying from a few dozen to a few hundred square kilometres, but generally limited to the territory of a few neighbouring municipalities.

2.2. Districts as an intermediate form between market and hierarchy

A second fundamental aspect in the economic analysis of districts concerns the form of organisation of productive activities, depending on the model of labour sharing and specialisation adopted by local firms.

The forms of economic organisation have been analysed in particular by economists known as institutionalists, whose main exponent is Oliver E. Williamson [1975]. According to these economists, where the production processes of economic goods can be organised according to the principal of labour sharing and specialisation, the interactions that are generated between the individual specialised players can be organised in two different ways: the market form and the hierarchical one.

When the production processes can be conveniently broken down into several distinct stages, and when these can be allocated to individual players equipped to conduct them efficiently, the labour sharing model that emerges leads to a system composed of many different independent specialised firms, which interact on the basis of transactions. This form of co-ordination of production activities is of course the market and it is realised through prices that set a balance between demand and supply, and through the stipulation and implementation of contracts between parties to regulate exchanges.

In the market, each player decides and acts individually to maximise his or her utility function, following the rationale of self-interest, leaving the task of balancing the interests of the individuals to an «invisible hand». The market is in theory the most efficient form of co-ordination of economic activities, even in the case of complex systems, because the price system minimizes the information costs necessary to regulate transactions between the different parties. Moreover, the market induces the overall system to seek maximum efficiency, distributing along the chains incentives (in the form of higher profits) and sanctions (in the form of losses) affecting the economies of the different system members, as a direct result of the different efficiency levels achieved by each player.

However, markets often do not work perfectly. There are many possible reasons for their failure, including conflicting interests that may lead to opportunistic behaviour by players, forcing the parties to bear substantial transaction costs, the presence of information asymmetries, which generate advantages (and power) for certain players and not others, the presence of uncertainty, which leads to a lack of straightforwardness between the players, the special nature of some resources exchanged, for which it is difficult to reach agreement on the price, the difficulty of

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2 For example, the sixteen industrial districts of the Region of Lombardy cover a territory that in total equals 16% of the regional territory, within which almost of quarter of the population of Lombardy lives. Over 454,000 manufacturing workers are employed in these districts, amounting to 36% of the regional total (of these almost 174,000 are employed in the specialised sectors of the districts). However, their geographical, demographic and productive dimensions are highly variable, ranging, for example, from 32.6 sq.km. in the Leccese textile district to over 800 sq.km. in the Valli Bresciane district, and from just over 35,000 inhabitants in the Montichiari district to over 450,000 in that of Brianza. These last two districts also represent opposite extremes in terms of manufacturing workers, numbering 6,500 and almost 76,000 respectively.
checking individual performance in some cases, which allows pockets of inefficiency to remain in the system, and the presence of economies of scale linked with company size.

These factors may lead some players to prefer a hierarchical system to the market. In this event, activities previously conducted by external players are internalised within the company, where leaving them to the market would cause inefficiency or undue transaction costs. This mechanism underlies integration decisions - in general - stemming from the application of the big company model at the expense of a system of independent SMEs.

For a company, a hierarchical solution seems worthwhile - depending on the transaction economies - when the higher costs of co-ordination due to the integration of downstream or upstream activities of its value chain are nevertheless lower than the transaction costs generated by market inefficiencies, or when there are definite incentives to increase the company’s size. And this happens frequently, as the predominance of the vertically organised big company model in many sectors shows.

However, on a par with what occurs in other types of company network [Lorenzoni 1983], the districts manage, because of their special form of labour sharing and the external economies in the territory, to gain the advantages of the hierarchical system (for example achieving high volumes which permit collective economies of scale), without however losing the flexibility and inexpensiveness of the market system.

In this sense, the districts represent an intermediate form of organisation between the market and a hierarchical system. In effect they function as local SME markets, in which the external economies reduce inefficiencies caused by small size, while social factors intervene to protect entrepreneurs against any opportunistic behaviour. Indeed, such behaviour is inhibited in the districts by the greater ease of circulation of information. It would be detected by the system immediately and punished through exclusion from the co-operation networks.

Case 1: The women’s stockings district of Castelgoffredo

An example of this inter-organisational means of labour sharing among district firms is the case of the women’s stockings district of Castelgoffredo, in Lombardy.

Its territory includes 15 municipalities in the provinces of Mantua, Brescia and Cremona, with an overall territory of 353 sq.km. Altogether it has 269 enterprises in the sector of production of women’s stockings, of which ¾ are artisan firms and ¼ industrial companies, employing 7,000 workers in total.

Each year over 1,000 million pairs of women’s stockings (including tights, stockings and ankle socks) emerge from this industrial district, as well as about 75 million items of seamless men’s and women’s underwear, resulting from the diversification of enterprise in the district in recent years.

As regards the entrepreneurial population, according to a census in 2005 by the local Stocking Services Centre, 52.6% of the firms are micro enterprises (up to 10 employees), while 38.1% are small firms (11-50 employees). A further 7.3% of the companies are in the medium range (from 51 to 200 employees) and only 2.0% have more than 200 employees (only 3 of these companies have more than 500 employees).

The labour organisation model of this district can be understood by noting how the different stages into which production of women’s stockings can be broken down are distributed among the population of firms. This process has seven main stages: 1) texturizing the thread, 2) weaving the tubular forms, 3) sewing and assembly; 4) dyeing; 5) trimming/packaging; 6) product marketing; 7) lastly, the production of service activities, such as support on production techniques, information technology and sales issues.
No less than 58.0% of the district companies carry out only one stage of this process internally (in general sewing/assembly, packaging or weaving). Most of the firms, therefore, are small specialised companies that place their skills and production capacity totally at the disposal of the district system, based on a strategic rationale of focussing on each stage. For example, three companies in the district are specialised in dyeing, a stage of the process that requires specific skills and major investments in technologies, and they dye the stockings for all the firms in the district. Another three companies, on the hand, are solely dedicated to marketing the stockings produced by the other SMEs. A further 22.5% of the companies carry out two stages (generally combining weaving and sewing). Moreover 10% have three distinct stages internally (mostly weaving, sewing and packaging), 5% have four stages (weaving, sewing, packaging and marketing), and only 1% of the firms have five stages internally (these are the ones that also carry out the dyeing). Lastly, only seven companies have the whole value chain internally, including marketing and the production of support services. These, of course, are the big companies of the district that have adopted the hierarchical system. These seven companies account for about 80% of the entire district production. The form of inter-firm labour organisation used in the district arises from substantial sub-contracting: 56.1% of local firms consist of external workers who work on behalf of third parties in the context of the local informal networks. The complexity of the chains of relationships within the district is demonstrated by the fact that the product often passes through the hands of several different sub-contractors before returning to the company. No less than 50 companies working for third parties say that in turn they make use of other third-party workers who they ask to carry out work on a sub-contracting basis.

To tell the truth, the efficiency of this kind of organisation depends on the industrial sector: the district form tends to be stronger mainly in sectors that are structurally not highly concentrated, in which the best size from the standpoint of production economies of scale is quite small, and where standardisation of the products is low, provided that the production process can easily be broken down into distinct stages. For this reason canonical districts seem to proliferate mainly in traditional sectors with a low technological content or with «mature technology», while other forms of production system are favoured for different sectors.

3. Industrial districts seen from a socio-cultural perspective

Industrial districts are also socially complex structures, with many internal levels, capable of generating relationships of co-operation not only among firms but also between firms and non-economic players in the territory to which they belong.

The fact that the character of these districts is not solely economic emerges strongly from the way they were defined by Giacomo Becattini, the economist who was the first to understand and explain Italian districts.

According to this author, an industrial district is «a socio-territorial entity characterised by the active co-presence, in a limited territorial area with a naturalistic and historical identity, of a community of people and a population of industrial companies» [Becattini 1989, 112].

The district model thus includes the territory – meaning the naturalistic, historical and sociological whole – among its constituent factors; indeed one can say that there exists an absolute symbiotic relationship between the territory and the productive apparatus. The success of the productive framework determines the wealth and well-being of the community living in the district; the success of the local entrepreneurial system is the main determining factor as regards local social
success; the ability of the system of district companies to innovate and regenerate themselves on the markets determines the future well-being of the community.

This overlapping between economic and socio-cultural dimensions is seen in various major aspects of the life and history of the district. Two of these are discussed below: a) the presence of social capital underlying the district system, which proves to be a determining factor also for the competitive success of its companies; b) the presence in the district of special mechanisms of production and spreading of knowledge, which augment the intangible assets on which the competitiveness of the system is based.

3.1. The social capital underlying the district system

From the standpoint of the social sciences, the district system may be represented as a community of people who belong to the same socio-cultural environment and therefore share the same language, culture, history, values and meanings, who have a common ethic regarding work and change, with common implicit rules of behaviour.

The origins of the habit of reciprocal co-operation between entrepreneurs – on which the inter-firm system of organisation of production depends – lie in the fact that the entrepreneurs belong to this social environment. Their economic relationships are rooted in this humus, impregnating not only their inter-personal relationships but also inter-company ones with these cultural elements and values [Becattini 1989; Dei Ottati 1995].

The proximity of the companies belonging to the territory should therefore be recognised not only in a geographical sense (as belonging to the same restricted territorial area), but also as belonging to a group whose various players identify with each other and among whom there is a background climate of social cohesion.

To use a concept introduced by Marshall [1920], the benefits of a special «industrial atmosphere» can be seen in the district: the existence of a common culture and of rules of reciprocity, combined with the habit of implicit co-operation in the structure of the district, makes it possible to generate the climate of trust on which the whole socio-economic system of the district depends.

More generally, one may note that underlying the virtuous working of this social organisation (but also of its productive dimension) there is a high social capital, that is to say a rich network of relationships between the players, people, groups, companies and institutions that may also be expressed in high levels - above average - of civil involvement, “civicness”, and of generalised trust.

In general, the term social capital denotes the ability of the players in a territory to gain benefits as a result of belonging to social networks or structures. It is a common good available to all participants in the local network [Coleman 1988; Putnam 1993].

For organisations that participate in the network, the benefits include privileged access to new knowledge, better information, privileged opportunities for new business, a good reputation, a power of influence and an improved understanding of the social regulations of the environment within which the company works. The relationships between the companies benefit from this social capital too, which results, for example, in a lower risk of opportunistic behaviour in transactions.
By sharing this social capital, the district companies have access to the resources available within the relational circuit of the district, through contacts and by knowing people, that enable them to create value through the relationships [Lipparini 2002]. This district social capital is thus an added source of competitive advantage for the individual companies, because as a result of it they can supplement their company assets with district-specific collective resources and skills.

The benefits that stem from the existence of this social capital can often be identified in Italian districts, although the intensity is not the same everywhere.

As regards community life, this social capital may find concrete expression in terms of good local administration, widespread involvement in associations of entrepreneurs, civic spirit and fruitful co-operation between public and private bodies. A further possible effect in an especially virtuous environmental situation is that the district may acquire a higher ability to adapt to changes in the external competitive scenario (a condition that could be useful in the current context of profound transformations).

However, for this to occur the social capital must exist, and the players must have a shared cultural background that permeates their relationships and helps to develop reciprocal trust.

For this reason the future of the district as a productive social community is linked with the ability to preserve (and develop) its cultural identity. While the normal evolutionary processes of this culture, generated by ever stronger contacts with distinct external cultures, may change that identity, update it and make it evolve coherently, they should not be allowed to erode or fragment it.

It is the duty of public and private institutions in the district to keep its cultural identity coherent. Compared with the classic Marshall model, Italian districts have the advantage of being able to make use of diligent local institutions that support the district, such as training centres, universities, consortiums, specialised service centres for companies, local banks, and the facilities of entrepreneurs' organisations (for the territory or by category). Taken together, all these bodies foster integration in the district and often serve as shock absorbers, easing the continual tension between co-operation and competition that spurs the entrepreneurs.

The history of the districts shows that several different paths have led the communities to an express recognition of their identity as a district.

Sometimes it has been a process triggered by the local training centres, which help the productive players to become aware that they represent a coherent, organic system, driven by the desire to respond better to the needs of the local labour market. On other occasions it has been helped by the constitution of an ethnographic museum, reminding the community of its own artisan and industrial history. In some cases it has been prompted by the wish or need to set up consortiums of SMEs, to present a united front against unfavourable market situations. In other cases the local government, the mayor, public development agencies or the Chamber of Commerce have taken the lead, offering initiatives designed to strengthen the entrepreneurial fabric, at moments of crisis or difficulty causing unemployment and social problems. Lastly, the associations of entrepreneurs, prompted by their associates in the territory, have sometimes tackled the collective problems of a district, thus helping it to become aware of itself.
Case 2: The sports shoes and mountain footwear district of Montebelluna

In the district of Montebelluna, in the province of Treviso, 50 kilometres from Venice, there are 386 companies belonging to the sports system sector, with 7,600 employees altogether. Every year 25% of the world production of roller blades, 50% of the specialised mountain shoes, 65% of the après-ski boots, 75% of the ski boots and 80% of the motorcycling boots are made there, in addition to shoes for leisure time and sports clothing. Among the brands emanating from Montebelluna are Nordica, Tecnica, Dolomite, Lotto, Diadora, Adidas, Salomon, Alpinestars, Geox and Stonefly. Although this district has deep roots that stretch as far back as the Republic of Venice, and even though its industrial aspect had already formed in the first part of the 19th century, we can say the community did not acquire definitive self-awareness of being a district until the nineteen seventies. This was prompted by a public health problem: the recognition of a professional illness, polyneuritis caused by glue, which affected many workers in the shoe factories. The mobilisation of the community and the local government in response to the problem made a substantial contribution to the emergence and consolidation of a true collective sense of district identify among the local community.

The self-awareness of the district was definitively demonstrated in 1984 with the creation of the Ski Boots and Sports Footwear Museum, which set itself the task of preserving the historical memory not just of a product but also of the whole district. The museum has a collection of the most characteristic items of the two centuries of history of the district, giving special attention to the historical and social fabric that made the development of this important productive district possible. Alongside early cobbler's tools and authentic archaeological finds made in the district, the museum displays numerous historical documents that chronicle the social evolution of the Montebelluna community. The Museum Foundation also deals with professional training of highly specialised experts for the productive system, and produces an annual socio-economic report that monitors the economic and entrepreneurial situation of the district, providing a point of reference for scholars and journalists.

3.2. The district as a cognitive system

The success of the Italian district system is derived from the localised presence of know-how originally acquired by artisans - from which the technological abilities subsequently used on an industrial basis were developed - as well as a very lively cultural tradition, capable of continually regenerating knowledge and transforming it into products, adapting to changing market requirements.

The productive vocation of the district community is thus the outcome of special indigenous skills, consolidated by historical and cultural factors, which constitute the intangible asset on which the competitiveness of the district and its enterprises is based. This contextual knowledge, an expression of the «genius loci» of the social and productive community of the district, is an integral part of the competitive advantage of the companies and the system.

For this reason the districts can also be represented as cognitive systems, in which unique processes of production of knowledge take place, because they are contextualized in the territory.

The analysis of the districts as cognitive systems is focused on special processes of creation and spreading of knowledge, tacit and codified, that underlie the development and success of the district. Indeed, in contrast with what normally happens with companies that are not based in the district, it is possible to identify mechanisms of learning within these productive systems that operate on several levels at the same time [Sammarra 2003].

In the first place, a mechanism of internal learning occurs, on the level of the individual firm, which is fostered on one hand by the high level of labour sharing among district companies
learning by specializing), and on the other by the fact that workers in small companies with a simple structure have the opportunity to gain a wide range of experience in the company (learning by doing) [Grandinetti 2002].

In the second place, on the level of the whole local system, mechanisms of collective learning are triggered. According to the so-called theory of the milieu innovateur, these are fostered by the system of relationships that link the players in the territory and that involve the whole local system in a coherent way: the production apparatus, the combination of social players, the community culture, the system of conventions and representation of local players [Rullani 2002; Camagni e Capello 2002; Garofoli 2003]. This process of the transfer and spreading of knowledge in the system is fostered by spatial, relational and cultural proximity between players in the territory, whether economic or not. It is activated - sometimes uncontsciously - by the continual processes of imitation among firms and through training, mobility and the turnover of workers. Imitation is encouraged by physical contiguity between firms, which enables entrepreneurs to observe each other and reduce costs connected with research for strategic information on competitors and their products. The mobility of workers between firms permits continual cross-fertilization of company knowledge. The development of specialised training centres in the district allows for constant upgrading of the professional skills of the people belonging to the various trade communities that operate in the system. This collective learning generates competitive advantages for the whole system, because the contextual knowledge thus produced is internally inclusive, in the sense that it is easily accessible by all district players, but externally exclusive, in that it cannot be easily reproduced or accessed by those who do not belong to the local community, such as, for example, competing companies outside the district [Rullani 2002]. Such a mechanism of production of knowledge conceals a grave danger for the district: that of tending to become self-referential in its cognitive processes, to the point of closing itself hermetically, isolating itself from the external context. To avoid this risk of cognitive lock-in, which is the anteroom of entropy, the system must always try to open its channels of communication and acquisition of knowledge, welcoming external information and novelty.

Lastly, learning also takes place within the individual local networks of the district companies, because through systematic co-operation with its local partners, a company has the opportunity to learn about formal and informal relationships with other members of the inter-organisational network in the district to which it belongs. Indeed, in order to be able to collaborate, companies necessarily have to externalise their own tacit knowledge, internalise the codified knowledge of others, and finally combine this with the knowledge provided by the whole network.

The district is also a structurally ideal environment for the development of innovation, thanks to its favourable predisposition as regards research, the enhancement of the specific knowledge of the players, and the training of qualified personnel.

This ability is not so much the result of dedicated physical spaces or advanced infrastructure made available to companies - although these often exist - but is rather the final result of the intangible relationships, founded on social capital, that constitute the vector of spreading and sharing of the knowledge necessary for innovation. The network of district relationships is thus the
lasting foundation on which the processes of collective learning take root, and which prompt the interaction between customer and producer (internal to the district) that is necessary in order to create successful product and process innovations.

4. Industrial districts from a company perspective

Companies are the link between the economic and socio-cultural dimensions of the industrial district. They are the kingpins around which the events and evolutionary dynamics of the districts rotate.

And as district companies are mainly of small and medium dimensions, when we speak of companies in this context we really mean entrepreneurs. We can thus draw the conclusion that the decisions and strategies of entrepreneurs are the main force determining the evolution of the district arrangements and performance from within (in addition, of course, there is the external force of the markets and the environment beyond the district borders).

This is why a careful analysis of the entrepreneurial dimension is essential if we are to understand the working and evolution of a district. Such an analysis can be carried out by making use of company economic studies. [Cortesi Alberti e Salvato 2004].

From the standpoint of these studies, whose purpose is to analyse the economics, organisational morphology and company strategies of institutes belonging to the territory, industrial districts are seen as complex company systems, made up of numerous reticular organisations that operate in the territorial context. They emerge as a competitive, cognitive and relational system involving a number of distinct players, whether individual or collective, each with their own different organisational characteristics, but all economically significant.

On one hand there are numerous firms, of various kinds and sizes, united by belonging, in a lateral sense, to a common sector or production chain. On the other hand there are different private and public social players, such as the schools, research centres, service centres, etc., whose role is different from the companies but which nevertheless have organisational and administrative requirements.

The company-economics perspective allows one to analyse the following aspects in detail: the profile and behaviour of individual firms and aggregates of companies, giving special emphasis to their relational capacity, the evolution of the organisational structure of the companies and of the whole district system, the enterprise culture that the place expresses, the various roles played by companies (large, medium or small) in the system, and finally the meta-management system through which the district is co-ordinated.

As regards the type of company that usually operates in the districts, we should recall that micro and small firms are far more numerous, often have a strong artisan tradition, and are nearly always family run. An effect of these characteristics is that most of the firms work in restricted competitive environments with limited, focused company skills. Nevertheless, these firms usually reach higher levels of efficiency than non-district companies of equal dimensions, both because they benefit from the external district economies, and because the advantages offered by the social and cognitive capital of the district context can be integrated into their entrepreneurial formula.
The profile of larger district companies, on the other hand, looks completely different. For these it is necessary to adopt grids of company economic and strategic analysis that are totally different from the smaller firms.

The district offers relatively fertile ground for the growth of new enterprises, because of the local presence of a strong, broad-based work ethic, with industriousness and innovation that for many people is the key factor in prompting them to seek personal success through an entrepreneurial project.

There are also objective conditions that facilitate the start-up of new enterprises in the districts. Indeed, the fact that it is possible to focus on just one individual stage of the productive process ensures that only a few skills and a limited capital investment are needed to start up a company. The entrepreneur can find many resources and skills directly in the system, sometimes at zero cost and in any case at a very low price.

The lower company start-up costs, the low barriers restricting entry to and exit from the sector, and the low transaction costs ensured by the social capital, have the effect that potential entrepreneurs in the district perceive only limited uncertainty regarding their future and a lower risk of failure, compared with the situation outside the district. The attraction of starting up a new firm may therefore be stronger.

However, the undue ease with which a business idea can be formulated may also be a weakness in the system, in that entrepreneurs are not sufficiently stimulated to seek excellence. At the same time, the possibility of achieving large-volume economies on a co-operative basis induces a dangerous, systematic tendency not to grow, among most SMEs. This behaviour is becoming an ever-greater problem in the new scenarios of international competition.

For the same reason, it has always been easy to find small and medium entrepreneurs in the districts whose profile is not always robust, in terms of vision, ability and skills. While this situation was not too important in the past, when districts operated as closed systems, now that the districts are under ever-greater pressure to adopt international horizons, it is proving to be a weakness of no small account.

Lastly, analysis of districts from a company perspective also enables us to evaluate the inter-company networks that operate in the district, their conformation and the nature of relationships that arise from them. A district is a set of networks of companies that are independent from each other, that is to say a unitary system. This in turn is composed of other smaller systems of small and medium companies connected by inter-organisational links that are lasting and significant from a strategic standpoint. This is a less structured type of inter-firm network compared with intra-company networks of strategic alliances.

The relationships between companies in the network are regulated by *interactive communication* and by *co-operation*, which may take the form of vertical agreements, often informal, based on reciprocal trust, and the system is co-ordinated through these two mechanisms [Grandinetti 1998].

Even these networks of SMEs within the district are in turn small evolutionary systems of a cognitive type, based on processes of internal learning, and relatively independent in relation to the external environment, with which they maintain minimal and selective relationships. These
networks, based on informal agreements, usually demonstrate a remarkable capacity for self-organisation, which results in the ability to keep pace with the changing internal configuration.

5. The evolution under way in Italy in terms of districts

Following the intense, widespread development of Italian industrial districts in the last three decades of the previous century, with the approach of the new millennium the progress of these productive systems at first slowed and then came to a halt.

The effects of the new competitive international scenario and the global re-arrangement of industrial production facilities prompted the Italian industrial districts to seek new arrangements and also new formulas that could be integrated into the Italian experience, including forms partly different from that of the traditional industrial district.

The processes of modification of the district situation in our country are following three main lines:

− in the wake of the success achieved by the industrial districts in the previous decades, a process of progressive extension into non-manufacturing sectors of certain elements and typical principles of the district model has begun;
− alongside the traditional districts of the Marshall type, there has been an effort to introduce different forms of local productive systems in Italy. These have been modified by overseas experience, based for example on the rationale of the chain instead of being focused on the territory. (This process has given rise, for example, to meta-districts, theme-based districts and technological districts);
− in response to growing international competitive pressure and the loss of competitiveness on the markets, the leading companies of some industrial districts have spontaneously begun processes of strategic change. As a result they have grown, become international and have re-organised their chain of value. This has however caused major adjustments throughout their district systems.

A broader range of local productive systems is appearing in our country, and the industrial districts are taking on a form that is partly revised, compared with the past.

5.1. The progressive extension of the district concept

In Italy the district paradigm, which originally emerged and matured in manufacturing sectors, has spread beyond the goods-production industry to a significant degree. This extension continued until the nineteen nineties, and prompted some commentators to speak of a sort of "districtization" of Italy.

A first significant extension of the categories of economic analysis typical of industrial districts beyond the manufacturing sectors may be found in the tourism industry. Indeed, one speaks of a tourism district when the local productive system shows a clear vocation for production of tourism services, linked with a complete supply, in quantitative and qualitative terms, of services connected with accommodation and entertainment, as well as extensive wine-and-food facilities, a typical element of Italian culture.
A study by Aci – Censis [2001] identified no less than 299 so-called tourism districts in Italy, classified in four distinct types differentiated in terms of the environmental and artistic heritage associated with them. In greater detail, the study identified 96 maritime districts, located on the coast, 137 mountain districts, in which the mountain environment was the main attraction, 37 cultural districts, developed around an artistic patrimony, and 29 integrated districts, combining the elements of at least two of the other three types of district. The cultural district concept then gave rise to a debate on the possibility of defining certain urban territories as effective "districts". These are territories where activities and places connected with art, show business and cultural production in a lateral sense tend to concentrate.

Another recent development is the extension of the district concept to the primary sector of agriculture and its chains of transformation.

This was a deliberate economic policy decision taken at the national level. Under legislative decree 228 of 18/05/01, two new types of district were officially identified: rural districts and quality agricultural and food districts. This is undoubtedly a direct extension of the concept of the canonical industrial district, inasmuch as the definition makes explicit reference to law number 317/1991, whose rules remain partly valid even for these new types of district (including the fact that legislative power and responsibility for economic policy on the issue is attributed to the regions, beginning with the task of identifying the regions of this type present in the regional territory).

Under this decree, rural districts are «local productive systems characterised by a homogeneous historical and territorial identity, stemming from the integration between agricultural activities and other local activities, as well as the production of goods or services of a particular type, in keeping with the traditions and the natural and territorial vocations».

It is clear that a fundamental element of the rural districts is the integration between agricultural activities, in general, and certain territorial peculiarities of a cultural and historical kind.

On the other hand the decree defines quality food and agriculture districts as «productive local systems, that may also have an inter-regional character, characterised by a significant economic presence and by the inter-relationship and interdependence of the agricultural and food-and-agriculture enterprises, as well as by one or more certified products protected under current European Community or national regulations, or by typical products». In the latter case the productive specialisation of the territory is thus the determining factor, and above all the chain integration among companies, confirmed in particular by the presence of certifications or typical products.

Not long after the promulgation of Decree 228/2001, a survey by Unioncamere [2004] reported the existence in Italy of 35 rural districts and 55 quality agriculture-and-food districts, of which 11 in total had an inter-regional spread.

5.2. The introduction of new forms of district in the manufacturing sector

Apart from the extension of the district form into primary and tertiary sectors, Italy has witnessed the introduction of new forms of «district» – or perhaps we should say local productive systems – that differ from the Marshall concept. This began in the nineteen nineties and has affected manufacturing sectors. Drawing inspiration from models closer to industrial clusters [Porter 1998],...
to regional technological systems [Carlsson 1994] and in general to local systems for innovation, several regions have introduced new industrial policies designed to promote and support agglomerations of companies capable of generating innovation and competitiveness in sectors considered of strategic economic importance.

The result of this trend is that various district forms now exist side by side in Italy.

**Case 3: The meta-districts of the Region of Lombardy**

The Region of Lombardy offers a significant example of the latter point. A wish to implement a determined operation in favour of certain key sectors, relating to the entire regional territory rather than a supra-municipal one, targeted on companies belonging to production-chain aggregates rather than territorial aggregates, led to the creation of six meta-districts alongside the 16 traditional industrial districts.

Organised on a thematic rather than territorial basis, meta-districts are large territories containing chains of production of importance to the economy of Lombardy, with a substantial number of production companies specialised in the various components of each chain, as well as service companies and specialised research centres. The concept of physical contiguity of the territories, a characteristic of Marshall-type districts (which Lombardy has nevertheless retained, calling them specialisation districts), has thus been shelved in favour of network relationships between production and service companies belonging to the same chain of regional importance.

In the traditional district the emphasis of economic policy was on the territorial dimension, and thus implicitly on the physical and social contiguity of the players (to the point that the law-makers precisely defined the number of adjacent municipalities that delineate the geographical borders of a district). In the thematic district, or meta-district, on the other hand, the focal point becomes inter-firm chain relationships and their development potential.

Italy has recently witnessed the appearance, albeit in paltry numbers so far, of *technological districts*, among which we should mention the electronics and advanced technologies district of Genoa, the biomedical district of Mirandola in the Modena territory (also known as *plastic valley*), the high technology district of Catania (known as *Etna valley*), the Turin wireless district in Piedmont, and the Nanotech district in Venetia. These are specialised concentrations of companies that may be small but are mostly large, usually multinationals attracted by the extraordinary technological capacity present in the territory. Such companies invest substantial sums in scientific research and technology in the place. They were introduced in 2002 in a joint move by the Ministry of Research and the regions, in the context of the national research plan. They form part of the operations designed to promote a more efficient innovation model based on interaction between companies and research centres [Bossi, Bricco e Scellato 2006].

Lastly, in some cases, the traditional manufacturing districts have evolved into kinds of local productive system that we may call «integrated», in that they also include territorial activities that belong to different sectors.
Case 4: The district of San Daniele in Friuli

This transformation of certain canonical industrial districts into broader local production systems, capable of activating territorial resources that are not just in manufacturing, has already been tried by, for example, the Friuli Venezia Giulia Region, under Regional Law no. 108/2005 on the districts.

The best-known and perhaps most significant case is the Friuli ham district of San Daniele, which began purely as a food-industry manufacturing district and progressively expanded until it included not only the entire local food-industry chain, but also the cultural and natural heritage of the territory. What was once the district of production of one of the most famous brands of Italian ham is now the Food-industry Park of the Friuli Hills, a new entity that brings together not only the manufacturing resources of the territory, but also those of tourism, rural amenities and nature.

Moreover, under this law the Friuli Venezia Giulia Region introduced further important changes compared with the previous regulation, abolishing, for example, the district committees, replacing them with public development agencies, putting an end to across-the-board financing of all companies, simplifying the administrative procedures for district companies, and introducing the role of temporary manager in support of district companies in crisis.

5.3. The processes of transformation under way inside the industrial districts

Even in the canonical districts, however, a profound structural and strategic transformation has been under way since the nineteen nineties, following two main lines:

− on one hand the district systems, pressurised by major changes in the international competitive scenario, are reviewing the traditional organisational model, which proves less competitive than in the past, and its interaction with globalised markets;

− on the other hand, there are also substantial changes in the population of firms within the district borders, changes that especially concern the profile, size and the competitive and organisational strategies of some district companies.

There are thus two inter-related processes of change with different origins, occurring in different environments. The first stems from the external problems of the district, essentially the dramatic effects of globalisation, and involves the whole district system. The second clearly originates within the district, involving the elaboration of a new strategic vision by some entrepreneurs. It directly concerns the strategies of a small number of important district companies, whose decisions have substantial effects on other firms.

As regards the first aspect, it is clear that all industrial districts, faced with the emergence of a radically different competitive scenario compared with the seventies, eighties and early nineties, are re-inventing themselves. This often involves great hardship.

In the past, so long as there were significant cultural, political and economic barriers between national markets, Italian industrial districts could operate as closed contextual networks, with a reticular productive structure. This structure had few points of interaction with the outside, essentially limited to commercial activities carried out by companies that, under the local system of labour sharing and specialisation, dealt with the distributors [Grandinetti 1998]. For the rest, most of the district companies often operated exclusively within the district borders. Now that the global market is definitively established, however, the districts have to change into contextual networks open to global cognitive and productive processes. Indeed, by eliminating the borders between markets and nations, globalisation raised serious doubts about the localised model of labour
organisation, typical of some Italian districts. It has drawn the district products and players into an almost borderless world, including them in ever-broader circuits of production, circulation and use of knowledge.

However, in order to be able to open themselves towards the outer world, Italian district systems greatly need to fertilise the local environment with new knowledge. Stemming from places outside the district, such knowledge should help them to open towards these global networks and to complete and enrich their cognitive capital.

Individually or as a system, district companies now have to invest strongly in new cross-border relationships, to enter into the new world networks of production, and must codify their traditional contextual knowledge, both to achieve better relationships with the outside, and in order to protect that knowledge adequately, transforming it into a source of competitive advantage for the local system [Bonomi e Rullani 2000].

While the districts, as an organic system, are called upon to make this transition to a new arrangement better suited to the competitive dynamics of the globalised world, some leading companies have been doing so for about a decade. These firms are following individual paths of development that have prompted them to reorganise their chain of value, also revising the traditional rationale of infra-district co-operation. In recent years these companies have performed better than the district aggregates to which they belong, and this is a sign that their strategies are giving positive results.

In general these companies understood in time that they had to abandon the failing rationale of cost competition (which had however determined the success of many Italian district companies in the seventies and eighties). Instead they adopted determined policies of marketing and brands, continual product innovation and internationalisation, both commercial and productive.

These are strategic choices that have involved the companies in major investments not just in physical facilities but also in the construction of intangible resources and in internal development, or in the acquisition of new distinctive skills from outside.

These companies have reorganised their chain of value, deciding on each occasion, depending on strategic convenience, whether to assert direct control (through integration) of value-generating activities previously conducted by others, or to ask third parties, even outside the district, to carry out low-added-value work, for example through overseas outsourcing.

In becoming internationalised, many of these pioneer companies have grown, have partially integrated and now compete in a longer chain than they did only ten years ago, because the chain includes activities that, in the traditional district model, had been entrusted to other partners in the district network.

However, this strategy of growth through integration or outsourcing has not necessarily resulted in the leading companies achieving total independence from the district. There are indeed cases where the process of change described above was designed to develop production facilities orientated towards flexible integration, still treating the district supply networks as a key element in competitive company success.

In conclusion, the traditional Italian model, territorially defined, no longer represents the only possible alternative to the Ford model of the large integrated company.
Indeed many companies that adopted production outsourcing are experimenting with alternative organisation models, built around long supply networks, outside the district, although in some cases they have managed not to give up the advantages of being part of a district.

The changes induced by these strategic decisions by medium and large companies have helped to start a slow process of metamorphosis of the canonical districts. Instead of being the central and exclusive place of production - as they were until the mid-nineties - they now increasingly becoming places of production of ideas and knowledge.

In these new districts the central role lies with medium-sized companies placed at an intermediate level between the numerous small firms that have remained within the district borders and the few large companies that have spread their sails on overseas markets, revising the co-operative district rationale and transforming themselves into small multinationals.

It will probably be these medium companies and their decisions that will determine the future shape of the industrial districts in the coming years. An analysis of their strategic options is therefore necessary, so as to be able to set appropriate national and regional industrial policies in good time.
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