Industrial district responses to the network economy: vertical integration versus pluralist global exploration

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The major purpose of this paper is to discuss the impact of global networking on Italian industrial districts (IDs). Today, in many Italian IDs we can observe a trend towards opening up the local system of value and moving beyond the pre-existent links, which district firms had little control over and were basically limited to the purchase of raw materials and the sale of finished products. These IDs are becoming an integral part of a network economy. The opening up process is particularly evident in several areas of north-east Italy. Our analysis is based on four empirical cases and indicates the IDs have responded in different ways to the change in the competitive environment.

Keywords: Delocalization, global economy, industrial district, networking, value chain, value system

1. Introduction

In recent literature on global economy the concepts of network and networking have become familiar [21]. In our paper we will discuss the impact of global networking on industrial districts (IDs), i.e., networks of small and medium enterprises embedded in a local context. In spite of its importance, this issue has yet to be fully explored and the prospects of IDs in the new economic environment have still to be determined. In fact, some authors view the emergence of global corporate networks as a tendency that acts counter to the localization of production in local networks [1,2]. We, on the contrary, suggest that the impact of global networking affects local networks in several different ways.

In the past, IDs were able to take advantage of the crisis in the Fordist mass production system. Because of their rigid organizational structures, very large firms encountered a number of problems when facing the growing complexity of the final markets and the opportunities created by continual innovation. IDs, on the other hand, were more flexible in adapting a production system based on strong social relationships and shared contextual knowledge [5]. Nevertheless, both district networks in their neo-Marshallian form and Fordist firms operate as mainly closed systems. In the traditional district, the intermediate markets for goods and services are captive, meaning that buyers and suppliers inside the district have almost exclusive access to them. In addition, at the extremities of the district value system the control that
districts have over the channels linking them to the outside is rather weak. Finally, resource markets (human, financial and cognitive resources) are also confined within the district.

But today, as a result of the worldwide extension of the cognitive networks prominent in the competitive strategies of firms, the competitive scenario has changed [11]. The global economy calls for new types of knowledge and more attention must be paid to the sunk costs of the knowledge production process. In a global economy, as well as the huge Fordist organizations, IDs are also limited by their closure [20].

In many Italian IDs we can observe a trend towards opening up the local system of value and moving beyond the pre-existent links, which district firms had little control over and were basically limited to the purchase of raw materials and the sale of finished products.

In other words, these IDs are relating with an increasing number of external holders of knowledge and competences, transforming a relatively closed system of exchange at local level into something rather different. These IDs are becoming an integral part of a network economy [13,22]. To face the increased sunk costs generated by learning processes and the overworked information/communication technologies and integrated logistics systems, IDs need to develop strategic innovations in the local system of value.

This opening up process is particularly evident in several areas of north-east Italy. In our paper, which is based on a number of empirical cases, we will describe different ways in which change has taken place (or not) in IDs.

2. The emergent paths of district internationalization

Various actors are involved in opening up IDs internationally:

1. Some of the larger district firms become transnational or global corporations [3] and take on a leading role in the local production system.
2. Multinational corporations acquire existing district firms or set up new branches and subsidiaries.
3. Small and medium-sized firms operating in the final market or in specialized sub-contracting and in other supply industries of the district value system (often the manufacture of machine tools and other kinds of technology used in the production chain, as well as firms involved in logistics, etc.) take independent paths towards international growth.
4. Institutional actors develop programmes encouraging the internationalization and competitive evolution of IDs. Here an important role is played by service providers that act as a cognitive interface between the local context and the global economy [4].

Not all the above-mentioned actors involved in the internationalization process are to be found in every industrial district. Moreover, the relationships among these actors may vary from district to district. It is important to bear these factors in mind when reconstructing the evolutionary (or involutionary) model of an industrial district. From the analysis of the four districts outlined in our paper, as well as from studies carried out in a larger range of Italian IDs, we can make the following general propositions:

(a) some dynamic leader firms are always present in those districts where the international opening up process has developed most;
(b) since the district is a network of firms embedded in a local context, it is more likely to be reproduced when innovation potential and evolutionary qualities are present throughout the district system: manufacturing firms, service providers, local institutions. In other words, it must be determined whether the leader firms are acting alone or whether they are part of a more complex and articulated process of global exploration;
(c) it is more likely that the district will be reproduced when there are a large number of intense relationships among dynamic district actors involved in the internationalization process, as well as between these actors and the rest of the district. In particular, a positive link may emerge between leader firms and other district firms when the former widen their strategic horizon: they open up the district to the global economy while involving other local actors (subcontractors, service providers and competitors).

The strategic behaviour of the leader firms tends to modify the traditional way in which the district works [6,7]. The analysis of the leader firms examined in our study reveal several kinds of fundamental evolutionary processes.
Leader firms increase in size, offer a wider range of products and extend their markets, often acquiring other firms in the district and taking on a group structure.

Leader firms introduce complex innovation, i.e., systemic innovation that results in fundamental changes in the entrepreneurial formula and in the organizational model of the firm. At the same time, such innovation requires a high level of formal knowledge (transferable and, therefore, available to the firm outside the district) that can be contextualized inside the firm [17]. Consequently, when compared to simple innovations in production processes or products, the diffusion of innovation throughout the district, either by means of imitation or inter-firm relations, is far more selective.

Leader firms project the value chain in various directions: they control the final and raw materials markets, they sometimes turn to foreign sub-contractors and they develop strategic relations with both domestic and international service providers. This multidirectional opening up process deeply affects the traditional district model which is based on the district internalization of the markets for intermediate goods, services and resources.

The introduction of complex innovation and the projection of the value chain outside the district are both evolutionary processes that raise the quality of human resources inside the firm. As a result of this increase in the value of human resources, it is in the interest of leader firms to reduce worker mobility. Consequently, the mechanism that generates new district firms by means of spin-offs is weakened.

The strategies of leader firms are the main means by which the district system can open up to the outside environment. However, when such means tend towards exclusivity, some of the processes revealed in our analysis of leader firms are particularly intense and do not generate any benefits, either direct or indirect, on the rest of the district, the district formula falls into a decline. We are referring to the following factors:

1. The concentration of district sales revenue and added value as a result of horizontal and vertical integration strategies.
2. Complex innovation taking place inside the leader firms that cannot be transferred easily to the district context.
3. The delocalization of important activities belonging to the district value system.
4. The fact that leader firms internalize the best district resources.

If these processes continue, the district will inevitably regress to a small collection of localized firms that have been re-integrated vertically. Alternatively, the firms will possess a low level of vertical integration but their suppliers and sub-contractors will have a high level of global dispersion. The first scenario was observed in the spectacle manufacturing system located in Cadore (province of Belluno), in which few leader firms have attempted to integrate the local supply chain inside owner networks.

Often a number of different phenomena appear to the observer simultaneously. Together with the emergence of leader firms and the presence of outside investment there are a number of small, dynamic firms, operating both in the final markets and in sub-contracting. Moreover, the opening up of the local system of value can be assisted by the positive action of some institutional actors. Finally, the evolutionary processes of leader firms have not had a negative effect on the reproduction of the district system, since they have acted as a stimulus for a number of local firms to carry out change.

We have observed these phenomena in the chair manufacturing district of Manzano (province of Udine) and in the district of Asolo and Montebelluna (province of Treviso), world leader in the production of snow boots and sports shoes. Despite the fact that there are a number of differences between Montebelluna and Manzano, in both these districts global exploration and experience take place in a more pluralistic framework than in the Belluno district. The district network has been able to internationalize through external relations in a plurality of points and levels (producers of capital goods, firms inside the value system, firms at the extremities of the system, service providers, and district institutions). Even if the district has become a nodal point for a number of more extensive networks, it has not lost its identity or its typical systemic cohesion. It has still kept the mechanisms for systemic reproduction and evolution, but they are more selective. The local context has maintained the fairly diffused mechanisms that produce useful knowledge, and the fundamental social processes that generate new firms.

In these districts leader firms are exploring the new frontiers of the global economy but their international experience also benefits the interconnected networks of district firms and the more skillful imitators. For example, the leader firms have delocalized some of their sub-contracting relations in countries with low labour costs. At the same time, they are continuing to make use of the specific activities of the district
chain which have a higher level of added value and which have evolved further from a cognitive point of view. More precisely, leader firms are forced to select and requalify district sub-contractors, to promote an increase in their competences and their active participation in projects for innovation, and to develop stable and co-operative relations. Learning through relationships with leader firms can help the sub-contractor to increase economies of knowledge and extend his potential market outside the district.

Several small firms producing finished goods have increased their level of internationalization, adopting successful specialization strategies.

Finally, the opening up of both the districts of Manzano and Montebelluna has been supported by some institutional actors, ranging from local government to local banks and service structures acting as intelligent interfaces between the local context and the global economy in such fields as product and firm-system quality, technology transfer, collective marketing etc. These structures are the versatile integrators between local and global networks of knowledge. They are a fundamental evolutionary resource for the district in which they operate.

The analysis of these two cases confirms that district networks are capable of responding to change in the economic and technological environments. But it also underlines the importance of industrial policy in helping small firms to gain access to global networks.

The main difference between the two districts lies in the fact that Montebelluna, which today includes the most important sports system multinationals, has attracted more external investment. However, this phenomenon has not destroyed the network of district relations. Actually, the case of Montebelluna shows that the acquisition of local firms by multinational corporations is able to strengthen the acquired firms’ trading positions on the international market, maintain high quality production processes inside the district (either inside the acquired firm or in the local production network) and even attract new key activities. District subcontractors have been involved in new investments. Moreover, thanks to a higher level of competition, the increased presence of international managers and technicians in the area and the effects of imitation, local leader firms have been forced to adopt more innovative models of organisation, resulting in the reconfiguration of the value chain. In conclusion, the interest that multinational companies have shown in the district reveals the presence of key assets that cannot be transferred outside the area. Indeed, it is the very presence of these resources, and the possibility of reproducing them, that attracts outside investment.

One final situation that needs to be examined is related to the fact that there are no dynamic actors which are opening up the local system. As a consequence, it would appear that the district is destined to decline steadily: the (systemic) competitiveness of the district is being eroded and it tends to be relegated to a marginal position in the international division of labour. In this respect, the case of the knife manufacturing district of Maniago (province of Pordenone) is particular cause for worry. On the other hand, the analysis of this case reveals a further complication in interpreting the possible evolutionary patterns of IDs. The problem concerns the diversification of production inside the district, resulting in an evolution towards a configuration that covers various sectors and is open to external relations.

3. The spectacle production system of Belluno: an industrial district that is being transformed into a company town

The spectacle district of Belluno developed later than other Italian IDs. Moreover, the growth that has taken place in the area since the 1970s was not based on the widespread presence of skilled artisans as is the case in the typical district system. The first factory to be built in the Cadore valley in 1920 was already quite large and was founded by the Lozza brothers, who came from outside the area. The first specialist sub-contractor only appeared after the Second World War. Other firms imitated the first and this gave rise to a slow but constant process of growth. However, it was only in the 1970s that external (product) and internal (suppliers) market conditions favoured the process of widespread enterprise creation that was typical of the development of IDs.

In fact in the early 1970s, when 2600 people were employed in the district, the spectacle market began to show clear signs of growth and to appreciate product variety and fashion content. In this era spectacle production in the Belluno district went up a gear. The number of people employed rose to 4300 in 1981, 9000 in 1991 and today the figure stands at almost 15 000. Up until the first half of the 1990s these increases were determined by the development of a number of large industrial groups – such as Luxottica, Safilo, Del Rigo, Marcolin – and the growth of smaller manufacturers [14,16]. The specialist work of these small firms...
integrated the production of large local manufacturers. However, they were also able to take advantage of the opportunities created by the global expansion of consumer markets.

In this period, thanks to the division of labour among firms and flexible integration, the local production system was able to respond to a growing demand for a customized product with a high fashion content. As a consequence, the firms in the Belluno district were ideal partners for the famous names in fashion (such as Armani, Gucci, Valentino). What is more, for many years spectacle production remained independent from the distribution network, which throughout the world was in the hands of specialist opticians. On the one hand, these outlets kept a large percentage of the sale price of the goods (over 50% on average), and on the other they helped maintain the product variety high. In this way the product would not undergo a process of standardization where being competitive is based mainly on the price factor.

In the 1990s the district development model changed significantly. The end of the advantages deriving from the devaluation of the lira caused a fall off in the domestic and international market. The marginal firms that entered the district when it was expanding were the first to be excluded. The larger firms were forced to select their sub-contractors very strictly, transfer less important work to countries with low labour costs and, in some cases, initiate a process of vertical integration of the production cycle.

This last measure was the result of a fundamental change in the distribution strategies of the largest groups. The leader firms realised that trade had a very important role in the value system of the spectacle industry. Therefore, they attempted to gain direct control over the distribution channels by means of acquisition and the exclusivity contracts that high production volumes permitted. In this way, the flexibility required by the market was no longer achieved by means of the versatile integration of the district network but by the introduction of just in time techniques controlled directly by the largest firms.

Consequently, the gap between large and small firms widened. The former continued their rapid growth, absorbing the most qualified human resources from the local labour market. In contrast, the latter not only suffered a contraction in orders, but were also witness to a gradual deterioration of external economies – regarding inter-firm relations, human capital, services, collective goods and state institutions – which in the past had supplied them with the resources that were vital to their development.

The ease with which the main groups have acquired firms abroad – the most noteworthy being the takeover of Ray Ban by Luxottica – and transferred new production to the district indicates that a strategy of vertical integration can have a different configuration should the exogenous conditions change (currency strengthening, new investment opportunities abroad, incentives to localize production in developing areas). Under these conditions, the delocalization of the production chain is inevitable, unless local factors regain strength inside the district, thus attracting new investment, creating new businesses and tying the leader firms to the local area.

In this case, it would seem that the predominance of the leader firms will threaten the survival of the district. Small firms and sub-contractors are defenceless before a situation in which any possibility of growth is dependent on leader firms. Consequently, independent strategies for innovation and diversification are weaker.

In this way, the local industrial policies are not able to count on a shared, efficient governance system. This does not mean that there have not been attempts to try and solve some problems. The results, however, have been disappointing when related to the quantity of resources invested. In the early 1990s, a project called ‘Cittadella dell’occhiale’ was set up. It aimed to create a number of interlinked service centres that would be responsible for product certification, professional training, the exploitation of district knowledge and its reputation. Even though some of these initiatives proved successful, a change in the internal demand of the district revealed different needs. On the one hand, the large firms created internal service structures that competed with those of the district. On the other hand, small firms wanted to achieve diversification through new technology and new markets.

It is clear then that the institutions and the local service centres were weak in comparison with the power of the large manufacturers. Moreover, the latter did not seem to be too interested in making investments outside the business. They preferred to concentrate on strengthening their own production and distribution networks, as well as on managing brands in the global market. As a result, the substantial public resources invested in the district have so far obtained only modest results, since they have not been able to create a collective interest for the local development.
4. The Montebelluna sports system: local production of knowledge and global value systems

The history of the Montebelluna district goes back hundreds of years to the age of the Venetian Republic. At that time, in this area they produced mountain shoes for the woodcutters that supplied the shipyards with their timber. They were still producing shoes for woodmen and mountain dwellers in the 19th century. However, at the beginning of the following century, when Alpine tourism began to become popular, the shoemakers of Montebelluna were already capable of producing handmade mountain boots for the tourists, and this became their main activity. The outbreak of the First World War boosted the local production of mountain shoes as shoemakers tried to meet orders from the army. The first ski boots were produced in Montebelluna after the war when winter sports first began to become popular. At first these boots were simply based on mountain boots, but over the years they gradually became more and more sophisticated.

The advent of the ski boot transformed the district. The period of greatest expansion and innovation was in the 1960s and 70s. After the 1960 winter Olympics, which took place in Cortina, skiing became a popular sport in Italy and this was a great impulse for domestic demand. In the 1970s there was a real boom in the production of ski boots in the area. However, the most important change was technological, when leather was gradually replaced with a plastic casing. This crucial innovation was developed by an American technician and was adopted and modified in the district. The introduction of the plastic casing meant that many traditional manufacturers had to convert their production. This was an opportunity for them to create new product lines in the sports shoe sector. Indeed, in the case of football boots, motorcycle boots, ice or roller skates the quality of the leatherwork was still an important factor.

The speed and efficiency of the technological change that took place in the seventies was astounding. Such radical innovation encouraged manufacturers to try new solutions. Teams of firms carried out feasibility studies to see if polyurethane could be casted, while others used more economical injection processes. The latter technique became the standard which, according to the classic spillover mechanism, other manufacturers had to follow.

We have seen that the manufacture of ski boots has never been the sole activity in the district. After the boom years, by diversifying production, the district was able to take advantage of new opportunities, thus reducing the risks caused by external shocks. For example, the crisis years in the second half of the 1980s, which were caused by a series of warm winters resulting in a sharp fall in the sale of ski equipment, stimulated manufacturers to convert their production. Many firms went back to producing mountain shoes, especially for rock climbing and trekking. Moreover, they were able to improve the design and technical content of these shoes. What is more, the crisis induced firms to increase the level of diversification in the sports shoe sector and in sports clothes in general. This innovation paved the way for the development of the sports system sector, which since the 1990s has been one of the strategic objectives in the evolution of the district.

Today, in the district of Montebelluna, there are 350 footwear manufacturers employing 8000 people out of a total of 21 000 people involved in manufacturing in the local system as a whole. The number of medium-large firms is an indication of the solidity of the district: the average number of people employed in local footwear manufacturing firms is 24, three times higher than the Italian average in the footwear industry. One of the reasons of Montebelluna’s success lies in the firms that are involved in sub-contracting and in other activities supporting the footwear manufacturers, especially the production of plastic and casts. Many of these firms have been able to develop high levels of excellence and increasingly independent positions in the market.

This explains why the production of shoes with a low technological content is partly carried out in Eastern Europe or the Far East, whereas for shoes with a high technology content such as ski boots, motorcycle boots and football boots the opposite is true. In fact, the Montebelluna district attracts investment from many multinational sports system companies (Nike, Salomon, Adidas, Rossignol, Fila, Invicta). The Benetton group has also invested in the area in a bid to diversify production by entering the sportswear sector. Since acquiring a historical district brand name such as Nordica, Benetton has concentrated the production, and above all the planning, of products in its Playlife line in Montebelluna. Another district success story is that of Geox, a shoe manufacturer that in just a few years has become number one in Italy and number seven in the world. This company patented a technological invention that allows the rubber sole to tran-spire. Geox’s extraordinary growth was due to the way it organized an external supplier network (mainly in-
ternational) that adopted the ‘shoe that breathes’ technology. Moreover, the main manufacturers in the sector acquired the right to use the patent.

As we can see, the Montebelluna district has an open, diversified network in which the local main groups have been able to strengthen in the pre-existing fabric of small firms. The district’s leader firms and the investments made in the district by large multinational groups have made a contribution in renewing the local conditions that generate competitive advantage [8]. The recent changes have further increased competition in technology and have gradually raised the cognitive level of the district through the development of some key activities: research, new product development, marketing, distribution, logistics, quality control and the governance of decentralized production networks. Therefore, the international outsourcing of manufacturing processes, which has been common in recent years, is complementary to the growth of cognitive activities in the local system.

The transformation into a knowledge district was assisted by the dynamic and articulated contribution of the local institutions. Not only have the major firms continued to make selective investments in the local context, but the institutional actors have also kept a careful watch over district trends. In particular, the Museo dello Scarpone (Boot Museum) has become a place where firms can meet and exchange information. It organizes training courses for managers and technicians, gives assistance in setting up research projects, safeguards the history of shoemaking and has become an agency for the promotion of the district. The Chamber of Commerce of Treviso has also had an important role developing marketing projects for the area and setting up an agency in Montebelluna that supports the relationship between technology and industrial design. Moreover, firms have worked together with local authorities, trade associations and banks to create investment projects favouring the development of the district.

Today there is a need to increase the level of complexity and dimension of collective investment. A vertical portal needs to be created for the sports system, new competences need to be developed and a knowledge management system needs to be defined. As a result, the district will have to face a series of new governance problems. Nevertheless, the fact that an articulated, active institutional structure is present in the district is a sign that these problems can be dealt with adequately and that the district will continue to develop in the medium-term.

5. The chair manufacturing district of Manzano: leader firms and other interfaces between the local context and the global economy

Approximately 1000 firms operate in the chair district of Manzano. Some of them manufacture finished products; others work in the intermediate stages of the production chain. They employ over 11000 people, with an average of 8 employees per firm. In addition other firms produce materials (adhesives, paints and small metal parts) and machine tools for the chair industry or provide services for the manufacturing firms.

Originally in the area they produced straw-bottomed chairs by hand. Then gradually this area acquired all the features that distinguish Italian IDs: an articulated production network, a strong division of labour among the small firms that control the various stages of production chain, a large number of entrepreneurs, plentiful qualified human resources, a wide variety of chairs and tables and high export levels.

As is the case in other Italian IDs, with the exception of the extremities of the value system, the chair district of Manzano has operated traditionally as a closed local network.

At the beginning of the 1980s, following a strong economic crisis, there were the first signs of change. Over the next few years, these signs gradually increased as global competition became more intense. Some district firms chose strategic and organizational paths that were new with regard to the traditional district model. Consequently, they became leader firms in the local context. A similar situation was observed in the Livenza furniture district, which is located on the border between the provinces of Pordenone and Treviso [12].

Despite the fact that leader firms have adopted different entrepreneurial formulae and chosen different evolutionary paths, there are still some similarities in the strategic behaviour of the firms observed. This is due to the fact that their value chain has an international projection [9].

All the leader firms have diversified their overseas markets and yet have strengthened their marketing competences.

Another thing that these firms have in common regards their relationships with suppliers of key services in technological innovation, information technology, market research, product planning and design, and management consulting. Leader firms often have to look outside the district for these services.
The firm value chain is tending to open up by de-localizing suppliers, who operate at the initial stages of the production chain, in Eastern Europe. Low labour costs and proximity to sources of raw materials are both important competitive advantages.

Nevertheless, the district’s potential for evolution is not confined to a handful of leader firms, but involves many small firms that operate in the final market. Some of these have found a new position at the top end of the market after aiming at high-quality materials, product innovation and advanced design. Other firms have adopted highly sustainable niche strategies based on the development of products for specific uses. Others still have developed a product differentiation strategy for specific country markets. What is more, there are new forms of horizontal commercial co-operation among small manufacturers. These are an alternative to the traditional state-funded consortiums. By way of example, Grup Sedia was founded by three small manufacturers with the aim of selling their own products.

Inside the district the large population of subcontractors is not static, either. Many of these firms have made use of the knowledge and competences accumulated in a specific stage of the production chain so as to find customers outside the district and, in turn, become international firms themselves. To this end, learning through relations with district leader firms has also played an important role in the evolution of district sub-contractors.

Finally, we should look at the behaviour of institutional actors in the district. In the 1990s some of these actors were particularly dynamic in supporting local production. The municipal authorities encouraged widespread debate on the industrial policies that should be set up to compensate for some chronic weaknesses in the public overhead capital and to support the competitive evolution of the district. Moreover, they had a decisive role in convincing the regional government of Friuli-Venezia Giulia to pass a law in 1999 that is important for the development of the district. A district bank, Banca di Credito Cooperativo di Manzano, has recently set up a company, Rete Dis, together with a number of leader firms. The mission of this company is to develop an electronic link-up between district firms and to supply network services [15]. The company Promosedia, which includes the Chamber of Commerce of Udine and a large number of chair manufacturers, has continued to organize the annual district trade fair. However, it has also organized other forms of collective marketing. Finally, the Catas (Centre for Technical Assistance to Manufacturing Firms in the Wood, Chair and Furniture Industries) has strengthened its activity supporting district firms in their search for product quality.

This last centre deserves closer attention. In fact, by making firms in the local environment aware of the importance of quality, the centre has played and important role in supporting the internationalization process and the competitive evolution of the chair district. Founded in 1969 by the Chamber of Commerce of Udine, nowadays Catas carries out laboratory tests to check the quality of chairs, other furniture, furniture components and panels, as well as paints, adhesives, glass, plastic materials, rubber, fabrics etc. In addition, it certifies the quality of finished products, supplies R&D services, carries out consultancy work, and provides documentation and training services to a clientele that extends beyond district borders. By means of an exchange of knowledge and cooperation with other Eurifi members (European Association of Research Institutes for Furniture), Catas has become an advanced service organization that actively works in the global network of production, circulation and use of specialized knowledge.

This centre represents a local/global interface, a versatile integrator between local and global circuits of knowledge. These institutional actors are specialized in value system activities that district firms have difficulty in carrying out by themselves. Their specialization and internationalization allow them to accumulate knowledge and competences that they make available to the district.

6. The knife manufacturing district of Maniago: from specialist district to local production system

The knife industry in Maniago dates back to ancient times and developed from the skills of the blacksmith. In fact, knives were produced by hand for a long time after. In the 1950s, however, the industry underwent a complete restructuring process: modern machines were introduced, productivity grew and as a result the workforce diminished. At the same time, the district developed a pyramid structure. The large firms were located at the top, the small firms were in the middle and the craftsmen, who were dependent on the firms above them, were at the base.

During the 1980s there was a gradual but substantial contraction of production and the workforce. The local system did not seem to have the resources to face up to the strong competition and the complexity that
was beginning to take over the competitive scenario. It was also in the 1980s that the Maniago System was established and failed. The idea was to group together the main manufacturers in the district in an attempt to increase the level of technology in associate firms and encourage their internationalization.

In the 1990s, despite some signs of improvement, the weaknesses continued to exist: production was excessively fragmented (overall, fewer than 1000 people were employed in 150 firms); marketing was still unknown in too many local firms; the approach to product quality was often still based on empirical knowledge and, as a consequence, was difficult to certify according to standards recognised outside the district. At the same time, the level of complexity in the competitive environment in which the local firms operated increased. One of the paths that the district may follow is that of decline. In order to avoid this end district entrepreneurs and institutions must initiate an intense re-orientation of their strategies [10,18].

On the other hand, Maniago itself is an emblematic case of production that was diversified around the original district nucleus of knife-manufacturing. The growth of a diversified local system was based on three simultaneous processes:

(a) the localization of important external engineering firms in the area, such as Electrolux-Zanussi and Carraro Group, which built new plants or acquired existing businesses;
(b) the reconversion and/or commercial reorientation towards new segments of engineering subcontractors operating in the knife industry production chain;
(c) the emergence of a new district ‘embryo’ made up of firms operating in the publishing-printing sector.

In order to reconstruct an evolutionary model for the district we cannot therefore just concentrate on the original production chain. The traditional concept of the district must be replaced with the concept of a local production system. In this way we will be able to analyse the complete range of evolutionary resources existing in the area.

It is interesting to illustrate the case of the firm from which the new printing district was spawned: IPF (Industrie Poligrafiche Friulane) of Maniago. This firm specialized in printing (high quality publications and art books in particular) and at the same time actively encouraged the start up of new firms involved in allied businesses: bookbinding, photoengraving, composition etc. The new businesses were mainly set up by ex-employees of the mother company according to the classic mechanism existing in the IDs of enterprise creation through spin-offs. Some firms, however, were set up by outside entrepreneurs. It is clear therefore that districts can develop in new ways that respond better to the ‘open’ district model.

Product diversification is a trait that can be seen in IDs both in the north-east of Italy and other Italian regions. Often it is the fact that the district has developed into a cluster of industries that produces the framework for multi-sectorial diversification [19]. In other cases, the new components integrating the local production system have little or no connection with the original specialization. Sometimes both the above situations are true, as is the case with Maniago. In all cases, the single components of the local system follow independent paths as far as technology and commerce are concerned. Nevertheless, cluster relations may still be reproduced or developed from scratch.

7. Conclusions

The IDs have responded in different ways to the change in the competitive environment. However, they should open up to external networks of labour division and knowledge sharing as this is the only way that allows the local production network to achieve the economies of scale required to control highly competitive markets containing a high level of variety and variability. Nonetheless, the different ways in which these networks are opened-up do not all lead to the same result. In the cases we examined the role of leader firms was without doubt crucial, whereas the balance achieved with other agents appeared very different. The level of competitiveness of the local production network therefore depends on the ability of some nodal points in this network to gain strength and project themselves outside the district. When these processes involve a number of firms (as is the case in Montebelluna and Manzano) the effects on the local system are positive. This is because the mechanism that creates and renews external economies inside the district continues to receive an impulse – albeit more selectively – and the district’s systemic identity is enriched. Consequently, the local institutions are given the resources and the authority to intervene strategically in support of the small firms. By renewing the technology and management of small firms, external investment is more likely to be attracted to the district.
In other cases, however, the growth of a few leader firms can threaten the survival of networks of small entrepreneurs since they absorb the most qualified human resources. Moreover, they accumulate knowledge and create key infrastructures within the firm framework. In the situation we have just described, which the district of Belluno is experiencing at the moment, the institutions are not in a strong enough position to intervene in the local system and, therefore, there is no official place in which district development strategies can be planned and discussed.

Even if the excessive strength of some groups can be an obstacle to a general evolution of the district, the same is true when there is a lack of leader firms (as in the case of Maniago). In the latter case there is no impulse to create new relations outside the district whether they be technical, organizational or commercial. As a result, the channels that permit interaction with the innovation processes that are crossing the sector are weakened.

The policy implications should therefore be seen in a double perspective. If, on the one hand, the ability to self-generate knowledge creation processes in the local context needs to be strengthened (exploiting local identity, tacit knowledge and the diffusion of critical information), on the other it is also necessary to raise the ability to codify processes and formalize the language of production. This objective could be achieved by investing collectively in widespread access to digital communication networks, in logistics platforms and in certification systems. In the same way, initiatives could be taken to improve the performance of training and technology transfer centres, whose role is to run a system that processes and transmits local knowledge, as well as acting as an interface with the technical and market developments taking place in the competitive environment outside the district.

It is the organization of local governance and the model for industrial policy that are decisive. Here, the balance between agents involved in the internationalization process that was mentioned before is once more important. Leader firms, foreign transnational corporations, small active firms and local institutions (trade associations, unions, service centres, technical schools, banks and the local authorities) must be able to operate on at least two levels. The first is to fix the fundamental rules for a joint long-term investment, defining the specific policies on which the investment should be directed (and maybe concentrated). The second is to promote projects for industrial innovation and development. If these projects are in line with strategic policies, they should be able to count on partial funding with public money (since they will create positive external economies). However, local firms will also have to share the risk. In the IDs, in order for the projects to be effective, entrepreneurs must be willing to assume risk, even if these projects have a collective interest.

The regional government and the institutions promoting industrial policy can play very important roles in this competitive self-organizing model. This is because they will at last be able to define the resources that are dedicated to the development of IDs and a common set of rules. Moreover, they will force local firms and institutions to take part in projects of collective interest. If the district formula is able to evolve, it will also be thanks to these initiatives.

References


