The Role of Leading Firms in Explaining Evolutionary Paths of Growth: Italian and Turkish Clusters on the Move



F. Belussi and A. Caloffi

Abstract This chapter presents an analysis of the long-term development of the footwear industry in Italy and Turkey, focusing in particular on their main industrial districts/cluster: one in Italy and three in Turkey. Our research contributes to the reflection on the evolving relationship between history-dependent localisation externalities and firm performances. Agglomeration benefits do exist in the various stages of the cluster life cycle. However, not all firms benefit equally from being in a cluster, and not all firms show an accelerated pattern of growth after being located in a cluster. We found that after the take-off and the cluster's emergence, the dynamics of clusters is driven by the ability of some leading firms to connect the cluster (and its internal supply chains) to external markets and to global knowledge sources.

Keywords Clusters · Evolution · Firm performance · Turkey

1 Introduction

This chapter presents an analysis of the long-term development of the footwear industry in Italy and Turkey, ¹ focusing in particular on their main industrial districts/ clusters² (one in Italy and three in Turkey). Our research contributes to the reflection on the evolving relationship between history-dependent localisation externalities and firm performances. Agglomeration benefits do exist in the various stages of the

¹The analysis presented in this chapter is based on the EU-sponsored ShoeColl project "Improving the shoe industry by means of the clustering method in order to gain the competitive capacity in the international market" 2010–2013. The project was designed to analyse the Turkish footwear industry and to provide policy suggestions for its improvement, also by comparing it with the Italian footwear clusters and creating linkages between Italian and Turkish cluster agents.

²In this chapter the terms industrial district and cluster are used as synonyms. A rich discussion on this issue can be found in Belussi (1996, 2015).

cluster life cycle (Belussi and Sedita 2009). However, not all firms benefit equally from being in a cluster, and not all firms show an accelerated pattern of growth after being located in a cluster (e.g. Baum and Haveman 1997; Shaver and Flyer 2000; Chung and Kalnins 2001; Belussi 2006; McCann and Folta 2011). During cluster emergence (and initial development), there are visible benefits (Menzel and Fornahl 2009; Ter Wal and Boschma 2011) arising from agglomeration, such as the presence of a specialised labour market and the formation of a district atmosphere characterised by the circulation of ideas among entrepreneurs, as described by Marshall (1920). Whereas, during the consolidation phase, cluster firms exhibit an accelerated pattern of cumulative knowledge growth and a development of competencies, supporting the numerical extension of the local industrial structure formed by many small- and medium-large firms, inserted in a local net of flexible production processes (Belussi and Pilotti 2002, 2011). The subsequent stage of cluster development is driven by the ability of some leading firms to connect the cluster (and its internal supply chains) to external markets and to global knowledge sources (Giblin and Ryan 2015; Hervas-Oliver and Albors-Garrigos 2014; Belussi and De Propris 2014; Belussi 2015). This general evolutionary pattern was confirmed by our comparative analysis on Italian and Turkish clusters. In fact, as shown by our analysis, clusters that evolve over time, such as Istanbul and Montebelluna, are characterised by the presence of leading firms (in some cases MNEs with local origin) playing a connecting role and becoming a bridge between different clusters in different countries (Hervas-Oliver and Boix-Domenech 2013; Sedita et al. 2013; Narula 2014). Instead, clusters trapped in the early stages of their development do not see the emergence of any leading firms nor the entry through external MNEs. Also due to this absence, they develop weak connections with external markets and knowledge sources.

In particular, our empirical analysis compared three emerging or recently developed footwear clusters localised in Turkey-namely, Konya, Izmir and Istanbul-with a mature footwear cluster localised in the region of Veneto in the northeast of Italy, near Treviso and Venice: the Montebelluna sportswear cluster. Apart from the development stage, the four clusters differ in terms of the economic external environment in which they are situated (mature vs. emerging fast-growing countries), countries-specific institutions which characterise the four clusters (among which the regulations on labour and environmental protection), innovation intensity (high innovative clusters vs. imitative clusters) and the political framework in which the clusters are inserted (free market policies vs. defensive barriers to import policies). However, the clusters have some important similarities. They emerged in a similar way drawing on a core of historical craft traditions and have experienced similar early development stages, based on the exploitation of craft skills and local knowledge. By comparing their subsequent development trajectories, it was possible to understand what the triggering factors are that enable some clusters to grow, while others remain trapped in an early stage of development. Among them, as mentioned, we will focus on the role of leading firms. As described hereafter, in Montebelluna the latter are homegrown multinational firms established after the 1990s (such as Tecnica, Geox, Alpinestars, Aku, etc.) through a process of foreign firm acquisitions and greenfield investments. Few multinationals entered the cluster by acquiring Italian companies in the 1990s, such as Nike or Salomon. However, they soon exited, albeit remaining cluster clients for the subcontracting of high-quality shoes. In the Istanbul cluster, the leading role is played by large Turkish retail chains, which are also producers but which buy 40–50% of their sales from other Turkish firms mainly located in the Turkish clusters analysed in this chapter. Among the most dynamic Turkish leading firms, we must mention Zylan, which has recently entered the Montebelluna district with a greenfield investment focused on prototype design for the Turkish production. Zylan has also acquired the brand Lumberjack from Canguro (an Italian firm based in Verona), together with its distribution nets. On the other hand, the Turkish clusters in which the emergence of leading firms (or the entry of external leaders) was not observed are characterised by a low level of dynamism. Local firms are strongly focused on manufacturing activities, and their level of innovativeness is very low. They produce low- to medium-quality shoes for the large retail chains mentioned above or for buyers located in the peripheral international markets of the Middle East.

The chapter develops as follows: the second section provides an overview of the Turkish and Italian footwear industry; Sect. 3 explains the methodology and provides an overview of the firms interviewed; Sects. 4–7 are devoted to the analysis of the four clusters; Sect. 8 presents a comparative analysis of the four clusters and outlines some concluding remarks.

2 The Turkish and the Italian Footwear Industry

As stressed by the analysis of the EU Cluster Observatory, Italy and Turkey are among the main producers of footwear in Europe, and they host a relevant number of industrial clusters.³ Moreover, the two countries are linked by relevant trade flows of specialised machineries for footwear production and footwear components and design. Italy, with its 80,000 manufacturing workers—mainly located in Marche, Veneto and Tuscany—is the largest producer of footwear in the European Union, the ninth producer of footwear (World Footwear 2011; see Table 1)⁴ in the world (in terms of pairs of shoes produced) and the second largest exporter in the world in terms of value (the fourth in terms of quantity).

Italy is leader in the production of high-quality footwear, sport shoes and luxury footwear, with high fashion content. After several years of difficulties, exacerbated by the international crisis, Italian export—which is mainly directed towards the European market—began to grow again. The footwear industry in Turkey is growing fast and now employs more than 300,000 workers dispersed in the country in various clusters (Istanbul, Izmir, Konya, Ankara and Gaziantep) in more than 22,000 firms. Its growth has been driven mainly by the internal market, but in the last years

³http://ec.europa.eu/growth/smes/cluster/observatory_en

⁴www.worldfootwear.com/docs/2011/2011WorldFotwearYearbook.pd

Table 1	Top ten footwear
producer	s (quantity) in 2010

Rank	Country	Pairs (millions)	World share (%)
1	China	12,597	62.4
2	India	2060	10.2
3	Brazil	894	4.4
4	Vietnam	760	3.8
5	Indonesia	658	3.3
6	Pakistan	292	1.4
7	Thailand	245	1.2
8	Mexico	244	1.2
9	Italy	203	1
10	Turkey	174	0.9

Source: World Footwear (2011)



Fig. 1 Footwear clusters in Europe. Source: European Cluster Observatory (www.clusterobservatory.eu). Note to Table: The dimension of circles corresponds to the number of employees in footwear

also, Turkish footwear exports have been growing. Figure 1 shows the localisation of footwear clusters in Europe. It is important to note that these data underestimate cluster employment, because they refer exclusively to footwear firms, stricto sensu,

and do not consider the entire footwear filière, which includes producers of components, subcontractors and service firms.⁵

2.1 The Turkish Footwear Industry

According to the Turkish State Institute of Statistics (Turkey's Ministry of Economy, 2012), in 2011, the Turkish footwear industry was composed of about 4753 companies and 26,954 employees. Data from ILO (International Labour Organization) report that in 2004, the sector employed about 300,000 workers, 20,000 of whom were employed in the industry, while the rest worked in semi-mechanised and/or handmade shoe workshops. 6 The average dimension of the industrial firms was very small (5.7 employees). Tin 2006, the footwear industry covered about 1.5% GDP and 2% of total investments (Turkish Leather Council 2012). The national production consisted of leather shoes (26% of the national production of footwear in 2011), plastic shoes and slippers. In the same period, the share of the shoe component industry (e.g. soles, heels, moulds) on the total footwear industry was around 5%. There was also a small production of shoe machineries. Turkey produces women's, men's and children's shoes, sport and classic shoes, military boots and work and safety shoes. A number of famous designers are also emerging, producing luxury fashion shoes (e.g. Hussein Chalayan, who presented his collections in Paris). In 2011, Turkey's shoe production reached 212 million pairs. Currently, 70% of the demand of production inputs are met locally and 30% through imports. The main export markets are the Russian Federation, Iraq, Saudi Arabia, Germany, Bulgaria, the UK, France, Italy, the Netherlands and Romania (Table 2). In 2012, the export value was 425 Million USD. Almost 50% of the industry is located in Istanbul. The remaining 50% are in Konya, Izmir, Ankara, Gaziantep, Manisa, Denizli, Adana, Malatya and Corum.

In order to promote the upgrading of the footwear industry, in 2001 the government sponsored the creation of the Turkish Shoe Industry Research, Development

⁵In addition, as it will be further discussed in the following chapters, we have to note that the 30 firms interviewed in Istanbul declared to employ more than 12,000 workers in total; the 30 firms interviewed in Konya reported about 1521 workers, and the 24 firms in Izmir declared to have 1822 workers. In the light of this information, we can conclude that the figures presented by the EU Cluster Observatory are likely to underestimate the phenomenon.

⁶Data were collected from the report "Social Auditing in Bulgaria, Romania and Turkey," available at http://www.ilo.org/empent/Publications/WCMS_101067/lang--en/index.htm

⁷Sourced from the Turkish Government report (quoting Turkish National Institute of Statistics www.turkstat.gov.tr/UstMenu: http://www.tcp.gov.tr/english/sectors/sectoringpdf/footwear_2012. pdf. Following the Turkish Leather Council, in 2006, the Turkish footwear industry employed 380,000 workers in 40,000 companies (Turkish Leather Council: http://www.turkishleather.com/dtgeng/StaticPages/showpage.aspx?fname=altsektorler2.htm, accessed on December 2012).

⁸http://www.turkishleather.com/dtgeng/StaticPages/showpage.aspx?fname=altsektorler2.htm

Table 2 Interviewed firms

Cluster	No. of interviewed firms	No. of employees	Main products	Total turnover (million euros)	% of export	Avg price of product
Istanbul	30	12,290	All types of fashion shoes	1,736,638	32.4	46.0
Izmir	24	1822	Ladies and kids	48,948	24.6	35.0
Konya	30	1521	Man classic- elegant shoes	97,591	14.6	23.5
Montebelluna	30	11,612 (5589 in Montebelluna)	Sport shoes	2,378,000	74.5	70.7
Total	114	27,245		4,262,077	46.0	44.0

Source: Our interviews

and Education Foundation. "The Shoe Design Department" at Mimar Sinan University in Istanbul offers a 2-year course. Other policies have been directed to the promotion of the Turkish footwear industry. An important policy has been the establishment of a number of temporary trade barriers (as well as minimum supervision prices) on a number of products, including shoes.

2.2 The Italian Footwear Industry

Italy is the largest producer of footwear in the European Union. It is leader in the production of high-quality footwear and luxury footwear, with high fashion content. In 2011 the Italian footwear industry was composed of about 5606 companies and 80,925 employees. The average dimension of the firm was small (14 employees). The total production realised in 2011 amounted to 207.6 million pairs of shoes. The total value of the production realised in 2011 amounted to about 7 billion Euros (ANCI 2011). The footwear industry is a part of a larger industry that includes the production of bags and similar leather products. Moreover, the Italian machinery industry is one of the leading industries of the world in the field of shoe manufacturing. In 2011 more than 83% of the production (83% in terms of quantity; 82% in terms of value) were directed to the international market. In 2011 the average price reached 38 Euros per pair. Considering only the export of Made in Italy products (re-export excluded), in 2011 the export amounted to more than 6.2 billion Euros. The main export was towards France, Germany and the USA. During the last years, exports to Russia, China and Hong Kong have become important. The Italian footwear industry is concentrated in a number of industrial districts, mainly located in seven regions: Marche, Tuscany, Veneto, Lombardy, Campania, Apulia and

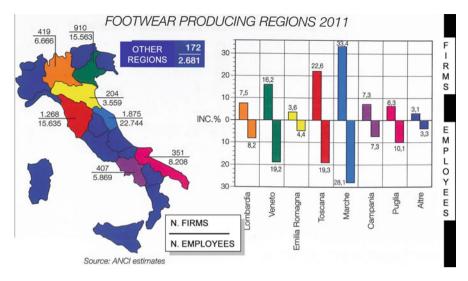


Fig. 2 The footwear industry in the Italian regions

Emilia-Romagna (see Fig. 2). A dense fabric of organisations has developed, which provides support to the development of the footwear industry: trade associations, vocational schools, specialised service and innovation centres, design institutes and others. At the same time, some of the most world famous trade fairs are organised periodically in major Italian cities for the production of specialised machinery, components and footwear fashion (e.g. MICAM, Lineapelle, etc.). Manufacturing activities—in particular the lower value-added activities—have been outsourced to other countries, while design-related activities, as well as marketing and promotion on world markets, are performed in Italy. The crisis has in many cases accelerated these trends, making a strong selection among footwear firms.

Turkey is one of the first countries of destination for Italian export of footwear machinery. Secondly, Turkey imports high-quality components from Italy, and Turkish footwear producers are also buying designs offered by various Italian fashion designers.

3 Methodology

In order to carry out this comparative analysis, a case study was performed, based on direct interviews to entrepreneurs and other local actors localised in the different clusters (Eisenhardt 1989; Yin 2011, 2013; Stake 2013). To refer to a work case study (Gerring 2004) can mean (a) that its method is qualitative, small-N (Yin 2011, 2013); (b) that the research is ethnographic, participant observation, or otherwise "in the field" (Yin 2011); (c) that the research is characterised by process tracing; and (d) that the research investigates the properties of specific phenomena. Case studies

are useful for forming descriptive inferences, all other things being equal. We worked hard to build a research design that could allow high comparability. The survey planned was based on semi-structured questionnaires presented to a sample of firms randomly selected in the four clusters. The interviews were directed and performed by two Italian members of the ShoeColl EU project unit based at Padua University: Fiorenza Belussi and Annalisa Caloffi. Face-to-face interviews lasting about 1 to 2 hours were organised in Istanbul, Izmir and Konya. Researchers from the Turkish university of Konya helped the Italian team organise the work, providing assistance in identifying the footwear firms to be interviewed, in setting appointments and in the simultaneous translations of the interviews (Turkish to English). In Italy, the interviews were organised and conducted by Fiorenza Belussi and Pierpaolo Andriani, Considering that each cluster has a size of at least 300-500 firms belonging to the footwear sector, it was decided to interview about 30 firms in each cluster, in order to take into account the variety of firms and to cover the heterogeneity of the industrial structure. The interviewees were selected starting from the list prepared by the local associations of firms, which include leading firms (mostly final firms), subcontractors and producers of components. Interviews were performed in Istanbul in April 2012, in Izmir in September 2011, and in Konya in November 2012.9

Table 2 provides an overview of the basic features of the firms interviewed. The Turkish clusters produce a medium-quality product, mostly ladies' leather shoes, but also other types of shoes, such as men and kid shoes, whereas the Italian cluster produces ski boots and other types of sport shoes. The average price for the shoes (charged by firms to customers) is higher for the technical shoes of the Montebelluna cluster and lower for the more traditional products made in Konya. In the Turkish clusters, the production is primarily for the domestic market, while in Montebelluna the target market is (mainly) international.

In what follows we provide some additional information on the firms interviewed in the four clusters.

Konya The firms interviewed were generally final footwear producers (26 firms). The sample included producers of components and parts (two producers of soles, one producer of moulds and one producer of carton boxes) (four firms). The 26 final firms produce women shoes (4 firms), men and women shoes (3 firms) and men shoes (19 firms). Most of them are small-sized, but the three largest firms in the cluster were interviewed as well (in the category 101–500 employees) (Table 3). The year of foundation of the majority of firms interviewed dates back to the 1960s, 1970s and 1980s, while only a few firms were founded in the 2000s. Firms are mainly low-tech, and they employ mostly unskilled labour (Table 4).

⁹We would like to thank the following persons who helped us organise the interviews and provide a simultaneous translation from Turkish to English: Zeliha Celik from Istanbul, Ersen Vural from Izmir and Zarif Songül Göksel from Konya. We also thank Sedef Akgungor from the Dokuz Eylul University (Izmir) for sharing her ideas with us about Izmir and its footwear cluster. Adem Ogut and Selcuk Karayel from the University of Konya helped us organise the empirical research in Turkey.

Table 3 Firms by size

		50–100	101–499	500 and	
	1–49 employees	employees	employees	more	Total
Konya					
Footwear firms	19 firms (526 employees)	4 (320)	3 (580)	0	26 (1426)
Producers of components	4 (100)	0	0	0	4 (100)
Izmir					
Footwear firms	9 (202)	9 (828)	3 (722)	0	21 (1752)
Producers of components	3 (70)	0	0	0	3 (70)
Istanbul					
Footwear firms	9 (210)	7 (555)	11 (11,450)	0	27 (12,215)
Producers of components	3 (75)	0	0	0	3 (75)
Montebelluna					
Footwear firms	9 (270)	8 (531)	5 (921)	3 (9500)	25 (11,222)
Producers of components	2 (65)	2 (130)	1 (195)	0	5 (390)

Table 4 Employees by type

	Konya	Izmir	Istanbul	Montebelluna (considering only workers in Montebelluna)
Managers	78 (5.1%)	165 (9.1%)	307 (2.5%)	346 (6.2%)
Technicians	18 (1.2%)	56 (3.1%)	191 (1.6%)	576 (10.3%)
Designers/pattern makers	47 (3.1%)	35 (1.9%)	131 (1.1%)	186 (3.4)
Skilled workers	311 (20.4%)	1022 (56.1%)	6427 (52.3%)	3705 (66.3%)
Unskilled workers	1072 (70.2%)	544 (29.9%)	5234 (42.5%)	776 (13.8%)
Total	1526 (100%)	1822 (100%)	12,290 (100%)	5589 (100%)

Source: Our interviews

Izmir The firms interviewed are mostly SMEs (almost 90% of the firms interviewed have less than 100 employees). Most of them are family firms, and their origin dates back to the 1970s and 1980s. Many local firms are run by second-generation entrepreneurs: some of them are young English-speaking entrepreneurs who returned to their family business after studying abroad. Most of the firms produce ladies' shoes. Some of the firms produce fashion shoes, while other casual sport shoes, with technical soles and materials. Products are of medium quality, and in order to manufacture them, firms employ a quite non-negligible share of skilled

workers (more than 50%). Traditional products, such as leather male shoes, are facing a decline in demand because of the changing tastes of the young generations.

Istanbul The 30 firms interviewed employed 12,290 workers. The majority of the firms (27 firms) produce finished goods (including 2 firms mainly involved in the trading of finished shoes), but we also interviewed 3 producers of components (soles and uppers). Among the final producers interviewed, there are the very large companies Ziylan, Gezer, Hotic and Metropolis, which are described in Sect. 6. They are the most innovative and dynamic organisations inserted in our sample. They are family business firms, although large organisations, and often their founders are still working in the company. In the other cases, local entrepreneurs are mainly second- or third-generation entrepreneurs. Firms in the Istanbul cluster are mainly low-tech, and they employ a large number of unskilled employees (40% of the total workforce). Most of the firms perform the entire production cycle internally.

Montebelluna The firms interviewed are generally final footwear producers, but we included in our sample also five producers of components and machinery (one producer of soles, one producer of moulds, one producer of high-tech components, one producer of machinery and one of injection parts). In total, the firms interviewed employ 11,612 workers (both in Italy and abroad) of whom 5589 localised in the Montebelluna cluster, and the average size in Montebelluna is about 200 employees (about 400 employees if we consider all workers linked to the Montebelluna firms). In our sample, unskilled workers represent only 13.8% of the total workers, while managers and technicians cover about 16% of the total workforce and while designers and pattern makers 3.40%. The presence of designers within the firms is quite common. Moreover, firms also use external (local) designers.

4 The Konya Cluster

Konya is one of Turkey's six largest cities in terms of populations. The city has experienced growth also owing to local policies promoting the creation of industrial areas (Organised Industry Zones and industrialised sites), which have attracted a lot of small- and medium-sized enterprises (SMEs). The city hosts a footwear cluster, located in the Aykent district, where there are about 100 firms and around 5000 employees. On the basis of the data provided by the local chamber of commerce, the production capacity of the local firms is about 15–20 million pairs of shoes per year. The Aykent district was created during the 1960s thanks to an agreement among the local footwear firms, the footwear firm association (Komek) and the Municipality of Konya. Firms located in Aykent have their production facilities near the commercial facilities and the warehousing; sometimes all activities are located on different floors in the same building. The industrial area also hosts a school for designers and pattern making, founded in 2013, as well as a number of logistic platforms. Currently the area does not host any facility for waste disposal. Thus, casual burning of leather and

other materials is carried out during the day around the empty grass areas. This obviously makes the district a polluted area.

4.1 Economic Characteristics of the Firms Interviewed

The cluster is still in a development phase. Despite the global crisis of 2008, in the last 5 years, 80% of the final producers have increased their sales, and all producers of components have declared to be in a phase of growth. In 2011, the firms interviewed produced about four million pairs, corresponding to an aggregate value of sales of about 90 million Euros (Table 5). The average price (in factory) of shoes is in the range of 15-35 Euros. The average price for the producers of components (mainly soles) is 2.0 Euros. These prices suggest that, on average, the product manufactured in Konya is of medium-low quality. However, the reason for such relatively low prices (if compared to Europe) is also the low cost of labour. In Konya (and in Turkey), monthly wages are about 400-550 Euros for low-skilled workers and about 800-1000 Euros for high-skilled workers. Salaries are generally higher in Istanbul than in the other clusters. Whereas, in Montebelluna (and in Italy), monthly wages are, respectively, 1000-1200 Euros and 2000-2200 Euros. In addition, the weight of indirect costs (pensions, welfare, unemployment subsidies and health system) is about 30% of the salaries in the Turkish footwear firms, while in Italy, they outweigh 100% of the salaries.

On average, footwear firms in Konya export 7.5% of their sales, while producers of components export 13.8% of their sales. Only six firms export to the rich countries of Europe (the UK, Germany, Austria, Norway, Switzerland and Belgium). No one is exporting to the USA. The majority of firms combine the production with their own brand with the subcontracting activity, while five firms are only subcontractors working for other Turkish firms (mostly for large retail chains owners), and only two firms produce with their own brand (Table 6). The production cycle of the firms is not automated, and the productive cycle is often organised with old, stand-alone machines. Only in four firms the stand-alone machines are placed very near each other to simulate a moving assembly line. In addition, the labour force payment system used by firms (payment "by piece") does not stimulate the adoption of advanced technologies. In only one (the largest and more technologically advanced firm of the cluster), some research and development (R&D) activities were found (Table 7).

4.2 Relationships with Subcontractors and Main Competitors

About 60% of the firms interviewed rely on the activity of subcontractors, which are mainly local (Table 8). Therefore, the Konya model could be similar to a "pure" self-contained Marshallian district, while the Italian clusters are more and more open

Table 5 Firms' performance on national and international markets

					Changes comparis	Changes in sales in comparison with December	cember	
	Sales 2011			Avg value of export	2007			Total
	euro)	Annual output (quantity) Avg price (Euros)	Avg price (Euros)	(% on the total prod)	Growth	Stability	Decline	firms
Konya								
Footwear firms	89,166	3,897,000	23.5	7.5	21	5	0	26
Producers of components	8425	7,350,000	2	13.8	4	0	0	4
Total	97,591	11,247,000	20.6	8.34	25	5	0	30
Izmir								
Footwear firms	42,358	1,361,450	35	20	17	0	4	21
Producers of components	0659	2,650,000	2	15	3	0	0	3
Total	48,948	4,011,450	30.9	19.3	20	0	4	24
Istanbul								
Footwear firms	1,736,638	107,929,000	43.2	35.7	26	0		27
Producers of components	006	90,000	pu	1.75	2		0	3
Total	1737,538	108,019,000	pu	32.3	28			30
Montebelluna								
Footwear firms	2,628,000	70,130,000	72.2	63.0	11	9	8	25
Producers of components	35,000	pu	pu	0	0	3	2	5
Total	2,663,000	pu	pu	52.5	11	6	10	30

Source: Our interviews

Table 6 Firms with own brand

Number of firms producing:	Konya	Izmir	Istanbul	Montebelluna
With own brand	2 (6.6%)	6 (25%)	6 (20%)	21 (70%)
With own brand and for subcontracting	23 (76.6%)	14 (58.3%)	21 (70%)	5 (16.6%)
Only for subcontracting	5 (16.8%)	4 (16.7%)	3 (10%)	4 (13.4%)
Total	30 (100%)	24 (100%)	30 (100%)	30 (100%)

Table 7 Firms that perform internal activities

Number of firms that perform:	Konya	Izmir	Istanbul	Montebelluna
Assembling	30 (100%)	23 (95.8)	29 (96.7%)	11 (36.7%)
R&D	2 (6.6%)	21 (87.5)	2 (6.6%)	28 (93.3%)
Design	2 (6.6%)	21 (87.5)	29 (96.7%)	28 (93.3%)
Logistics	6 (20%)	24 (100%)	27 (90%)	24 (80%)
Marketing	3 (10%)	23 (95.8%)	22 (73.3%)	25 (83.3%)
Sales	29 (96.7%)	24 (100%)	28 (93.3%)	24 (80%)
Only prototypes	0	0	1 (3.3%)	12 (40%)
All manufacturing phases are outsourced	0	0	0	3 (10%)

Source: Our interviews

 Table 8
 Location of subcontractors (multiple options allowed)

Number of subcontractors located:	Konya	Izmir	Istanbul	Montebelluna
In the cluster	192	57	951	146
In the region	0	0	50	0
In the country	5	0	265	0
Abroad	0	17	95	87
Number of firms without subcontractors	12	10	14	5

Source: Our interviews

systems connected with global supply chains, as illustrated, for instance, in the case of Montebelluna. Also the indicator of the subcontractors' stability shows the existence of characteristics typical of the "Marshallian" model. In fact, 15 firms out of 18 have declared in the last 3 years to have maintained stable relationships with about 70% of their subcontractors. Such relationships are closed to a partner-ship model (55.6%), instead of a pure market model, in which relationships are based on prices (44.4%) (Table 9).

The competitive arena of the cluster firms interviewed is national (93.3% of cases). On the other hand, Middle East producers or Taiwan-Chinese firms are not perceived as potentially threatening rivals. The measures adopted in Turkey were successful, while the European import barriers fixed at 10% of the value of the product failed to protect the national shoe industry in all European countries and

Table 9 Type of relationships with subcontractors

Number of firms having relationships with:	Konya	Izmir	Istanbul	Montebelluna
Local subcontractors				
Leadership	0	0	4 (23.5%)	13 (62%)
Partnership	10 (55.6%)	6 (42.9%)	8 (47.1%)	1 (4.8%)
Market relations	8 (44.4%)	8 (57.1%)	5 (29.4%)	7 (33.3%)
Total	18 (100%)	14 (100%)	17 (100%)	21 (100%)
Extra-local subcontractors		•		
Market relations	0	0	2 (22.2%)	8 (36.4%)
Partnership	1 (100%)	0	3 (33.3%)	1 (4.5%)
Market relations	0	3 (100%)	4 (44.5%)	13 (59.1%)
Total	0	3 (100%)	9 (100%)	22 (100%)

 Table 10 Localisation of main competitors (multiple options allowed)

Number of firms whose competitors are located:	Konya	Izmir	Istanbul	Montebelluna
In the cluster	1 (3.3%)	22 (91.7%)	24 (80%)	29 (96.7%)
In the same region	0	2 (8.3%)	19 (63.3%)	0
In the same nation	28 (93.3%)	7 (29.2%)	19 (63.3%)	5 (16.7%)
In another nation of Middle East	0	1 (4.2%)	4 (13.3%)	16 (63.3%)
In China	2 (6.6%)	10 (41.7%)	9 (30%)	12 (40%)

Source: Our interviews

Italy in particular. Although many in the EU protested against this violation of the international GATT agreements, the temporary protectionist strategies were reconfirmed by the government (Table 10).

4.3 Levels of Innovativeness of the Cluster Firms in Konya

The firms interviewed do not develop original products and new technologies but adapt existing designs of other firms (mainly Italian designs, but also those of some emerging firms that belong to the Istanbul cluster). Only in two cases the firms were clearly developing an original design (Table 11). The firms interviewed declared that they change about half of their models each year. The technologies in product (CAD) and processes (machinery) used by the Konya cluster firms mainly come from abroad (Italy, Germany, Taiwan) (in 93.3% of firms) (Table 12). The adoption of ICT for general management, e-commerce and networking purposes is low (Table 13). One important topic discussed in our interview was how firms develop

Number of firms developing:	Konya	Izmir	Istanbul	Montebelluna
Original products	0	0	0	23 (76.7%)
Original technologies	0	0	2 (6.6%)	23 (76.7%)
Original design	2 (6.6%)	2 (8.3%)	6 (20%)	23 (76.7%)
Adapts the design/products/ technologies of other firms	29 (96.7%)	24 (100%)	29 (96.7%)	7 (23.3%)
Not applicable	1 (3.3%)	0	1 (3.3%)	1 (3.3%)
% of new models introduced	51.8	52	55.5	59.6

 Table 11
 Level of innovativeness of cluster firms (multiple options allowed)

 Table 12 Technology sourcing (multiple options allowed)

Number of firms that use technologies coming from:	Konya	Izmir	Istanbul	Montebelluna
Local market	1 (3.3%)	6 (25%)	1 (3.3%)	29 (96.6%)
Regional market	0	0	0	0
National market	2 (6.6%)	14 (58.3%)	6 (20%)	1 (3.3%)
Foreign countries	28 (93.3%)	14 (58.3%)	26 (86.7%)	14 (46.7%)
Technologies are provided by the client	0	0	0	3 (10%)

Source: Our interviews

Table 13 Use and investments in ICT in the interviewed firms based on the business strategy adopted (ranking from 0 to 5) (multiple options allowed)

The firm	Konya		Izmir		Istanbul		Montebelluna	
invest in ICT in order to:	Number of firms	Avg ranking	Number of firms	Avg ranking	Number of firms	Avg ranking	Number of firms	Avg ranking
Connecting with clients and suppliers	30	2.5	24	1.79	30	3.9	30	3.7
Management purposes	30	0.1	10	0.58	30	2.1	30	3.77
Developing e-commerce strategy	0	0	0	0	18	0.7	30	3.47
Improve net- work efficiency	0	0	3	0.21	16	0.5	30	3.17

Source: Our interviews

and improve their technological capabilities. On-the-job training is very common among the firms of our sample, while more complex forms of learning (use of consultants and supervisors) are absent (Table 14).

^aProducers of components and machinery and firms working 100% for subcontractors are not included

Table 14 Presence of spontaneous and formal learning activities (multiple options allowed)

Number of firms implementing the	T/		T. 1.1	N 1 11
following activities	Konya	Izmir	Istanbul	Montebelluna
Spontaneous learning				
On-the-job training	30 (100%)	24 (100%)	28 (93.3%)	28 (93.3%)
On-the-job training with the supervision of experts	0	11 (45.8)	4 (13.3%)	21 (70%)
Clients/supplier interaction	0	8 (33.3%)	5 (16.7%)	20 (66.7%)
Use of consultants	0	5 (20.8%)	6 (20%)	18 (60%)
Imitation of strategies and product of competitors	3 (10%)	14 (58.3%)	5 (16.7%)	5 (16.7%)
Formal learning				
Internal training	29 (96.7%)	18 (75%)	28 (93.3%)	28 (93.3%)
External training	0	4 (16.7%)	5 (16.7%)	25 (83.3%)
Benchmarking activities	0	6 (25%)	3 (10%)	18 (60%)
Participation to institu- tional project and initia- tives promoted by local and/or industry association	2 (6.6%)	1 (4.2%)	0	1 (3.3%)
Visit to "best-practice" companies	2 (6.6%)	0	0	5 (16.7%)

The two most important external sources of knowledge mentioned (on a 1–5 Likert scale) were (a) national private service providers (3.47) and (b) national exhibitions or conferences (3.47), international private service providers (2.17) and international exhibitions or conferences (2.17) (Table 15). Drawing on these data, local sources seem to play a marginal role, and this is in contrast with all the literature on industrial districts and clusters that magnifies the importance of local spillovers. Contrary to what happens in the majority of developed clusters, competitors, subcontractors, partner firms, clients and local associations appear ineffective in sustaining innovation. Also universities and research centres are not mentioned by the firms interviewed as sources for information on new technologies.

To conclude, important linkages are external-to-the-cluster. Entrepreneurs mention the case of PDG, a firm from Verona, well known in the sector for its innovative skills owing to the fact that its technicians regularly visit the USA, discovering new high-tech materials produced by NASA and other innovative firms, which they then transfer and adopt in their shoes components. Firms often buy Italian design from Italian designers based in the Marche district. Special steels for moulds also come from Spain, Austria and Sweden. The Internet seems to be the most important source of information about fashion trends (2.43). Another low-cost source frequently used by the firms interviewed is the access to journal and specialist magazines (0.37), as well as local shops (0.37), national clients (0.30) and international travels (0.27) (Table 16).

 $\textbf{Table 15} \quad \text{Sources of information about new technologies (relevance from 0 to 5) (multiple options allowed$

Number of	Konya		Izmir	Izmir		Istanbul		Montebelluna	
firms using	Tronya		12		Istano		1,10110		
the following	Total	Average	Total	Average	Total	Average	Total	Average	
sources:	rank	rank	rank	rank	rank	rank	rank	rank	
Competitors									
Local	0	0	2	2	0	0	73	2.43	
National	6	0.2	3	3	0	0	59	1.97	
International	0	0	3	3	4	4	81	2.7	
Clients									
Local	0	0	8	4	0	0	4	0.13	
National	12	0.4	13	3.3	47	4	0	0	
International	0	0	6	3	13	3.2	89	2.97	
Subcontractors	and spec	ialised supp	oliers						
Local	0	0	7	3.5	0	0	96	3.2	
National	0	0	4	4	0	0	0	0	
International	0	0	17	4.3	78	4.3	83	2.77	
Marketing resea	arch								
Local	11	0.37	0	0	7	3.5	2	0.07	
National	0	0	0	0	11	3.7	0	0	
International	0	0	0	0	26	4.3	7	0.23	
Other partner fi	rms								
Local	0	0	13	4.3	0	0	3	0.1	
National	0	0	4	4	8	4	0	0	
International	0	0	0	0	9	4.5	78	2.6	
Business associ	ations				1		1		
Local	2	0.07	0	0	8	4	2	0.07	
National	0	0	0	0	0	0	0	0	
International	0	0	0	0	0	0	0	0	
Service centres					1		1		
Local	0	0	0	0	0	0	6	0.2	
National	0	0	0	0	0	0	0	0	
International	0	0	0	0	0	0	6	0.29	
Private service	provider	S			1		1		
Local	0	0	14	4.7	0	0	3	0.1	
National	20	3.47	0	0	3	3	4	0.13	
International	20	2.17	4	4	4	4	8	0.27	
Universities and	d researc	h centres							
Local	0	0	3	3	14	3.5	10	0.33	
National	0	0	0	0	11	3.7	12	0.4	
International	0	0	0	0	2	2	17	0.57	
Exhibitions or o			1	1	1	1	1		
Local	0	0	0	0	81	4.8	0	0	
National	104	3.47	45	4.1	106	4.4	25	0.83	
International	65	2.17	65	4.6	134	5.0	107	3.57	
		1 =	1	1	1	1	1 /	1	

 $\textbf{Table 16} \quad \text{Sources of information about fashion trends (importance from 0 to 5) (multiple options allowed) }$

Number of	Konya	Konya			Istanbu	Istanbul		Montebelluna	
firms using									
the following	Total	Average	Total	Average	Total	Average	Total	Average	
sources:	rank	rank	rank	rank	rank	rank	rank	rank	
Clients									
Local	0	0	23	3.8	5	5	9	1.8	
National	9	0.3	22	3.7	60	3.7	8	1.77	
International	4	0.13	23	3.8	35	3.9	8	1.77	
Subcontractors	and spec	ialised supp	oliers						
Local	0	0	3	3	0	0	13	1.93	
National	0	0	3	3	2	2	0	0	
International	0	0	13	4.3	7	3.5	4	0.30	
Other partner fi	irms								
Local	0	0	8	4	0	0	1	0.03	
National	4	0.13	0	0	0	0	0	0	
International	0	0	0	0	0	0	0	0	
Own marketing	research	or own age	ents						
Local	0	0	0	0	8	4	0	0.17	
National	0	0	0	0	13	4.3	0	0.1	
International	0	0	0	0	13	4.3	4	0.3	
Designers and	fashion s	tudios							
Local	3	0.1	24	4	8	4	16	1.57	
National	10	0.3	0	0	19	3.8	6	0.33	
International	13	0.37	12	4	49	4.5	12	1.5	
Shops or retaili	ng nets				'				
Local	11	0.37	3	3	5	5	0	0	
National	4	0.13	0	0	37	4.6	4	0.23	
International	0	0	4	4	13	4.3	12	1.5	
Business associ	iations		1		1			1	
Local	0	0	0	0	4	4	3	0.2	
National	0	0	0	0	0	0	0	0.1	
International	0	0	0	0	0	0	0	0.1	
Service centres							1		
Local	0	0	0	0	0	0	0	0.07	
National	0	0	0	0	0	0	0	0.1	
International	0	0	0	0	0		3	0.2	
Universities and	d researc	h centres		1 -				1	
Local	0	0	4	4	7	3.5	0	0.07	
National	0	0	0	0	11	3.7	0	0.07	
International	3	0.1	0	0	0	0	2	0.17	
Sector exhibition		1 0.1	1 ~	1 "	1 0	1 "		1 0.17	
National	3	0.1	28	4.7	88	3.5	21	1.47	
International	10	0.1	53	4.8	140	5.5	36	4.4	
memational	10	10.55	100	1.0	170	13	150	7.7	

(continued)

Table 16 (continued)

Number of	Konya		Izmir		Istanbul		Montebelluna	
firms using the following sources:	Total rank	Average rank	Total rank	Average rank	Total rank	Average rank	Total rank	Average rank
Travels								
National	5	0.17	0	0	48	3.4	34	3.57
International	8	0.27	33	4.7	112	4.7	34	3.57
Competitors								
Local	0	0	0	0	8	4	20	2.17
National	16	0.53	8	4	3	3	9	1.8
International	0	0	14	4.7	49	4.5	15	2.5
Others								
Journals and specialist magazines	13	0.37	78	4.6	103	4.7	38	4.93
Internet	73	2.43	70	4.7	120	4.6	36	4.87

5 The Izmir Cluster

Izmir is the centre of the Aegean Region. The Region, and Izmir in particular, has developed rapidly over the last 20 years thanks to a number of advantages such as the presence of important manufacturing traditions in many fields and the presence of clusters of SMEs specialised in sectors such as food processing, textiles and clothing, footwear and automotive. In recent years, the city has attracted a non-negligible number of foreign investors. Public policies have tried to promote the growth of industrial clusters (Kumral and Akgüngör 2006). The origins of the footwear cluster are quite old, dating back to about 100 years ago. The first firms were founded by Jewish and Armenian traders, who used to import and export shoes in Europe and in the nearby Mediterranean countries. In the 1920s, a large public-owned company was founded, Sumeri Bank, which produced also leather shoes. The company closed down during the 1980s, and from that moment on, the ex-workers founded many footwear firms in the area thanks to the knowledge acquired previously. Currently, the cluster hosts more than 3500 footwear firms and 45,000 employees (data provided by The Local Footwear Association 2011). The cluster is organised around several industrial areas such as Issikent. The industrial areas are composed of various plants where firms can locate their production (or part of it) and showrooms. Small firms can also buy or rent small showrooms in large buildings where they can show their products to potential clients. The footwear association has also promoted the creation of a vocational school and a footwear museum. In total, Izmir hosts four vocational schools for footwear workers. In addition to vocational schools, there are two local university departments that offer special courses in fashion and industrial design.

5.1 Economic Characteristics of the Firms Interviewed

Considering exports and sales, the cluster seems to be in a phase of development. Comparing the turnover of 2011 with that of 2007, most of the firms interviewed claimed to be in a situation of growth (both final producers and producers of components) (Table 5). In 2011, the firms interviewed generated a total turnover of almost 50 million Euros and sold about 1.4 million pairs of shoes. The average factory price amounts to 35 Euros for shoes and 2 Euros for soles. Local firms are mainly working for the domestic market. They sell their products to large Turkish retail chains or large firms such as Kemal Tanca, Hotic (a high fashion content company based in Istanbul, selling also online), Zippers and Zealand, as well as to global retailers such as Tesco, Polaris and the German low-cost large retailer Deichmann, which currently counts more than 1000 shops in Germany and opened its first shops in Turkey in 2006. Only few local firms are high exporters (70–80% of sales). Others export 20–30% of their sales. Their foreign clients are mainly located in Russia, Iran, Uzbekistan, Turkmenistan, Egypt and Iraq but also in Canada, Holland, Germany and Finland. Most of the local firms produce with their own brand. However, about 60% of the local firms combine autonomous production with subcontracting activity (Table 6). As for the interviewed firms' internal organisation, crucial activities are organised inside the firms, and only about 50% use external subcontracting for manufacturing the upper part of the shoe (Table 7). This is in strong contrast with the typical Italian district where the majority of firms rely on a large number of subcontractors for performing shoe manufacture and assembly. Izmir's firms also produce their prototype seasonal collection in-house.

5.2 Relationships with Subcontractors and Main Competitors

Most of the local firms use raw materials such as leather sourced locally. Only few special components—such as special soles, thread for shoes and fashion accessories—are imported from Italy (Table 8).

Relationships with local subcontractors are often long-term, sometimes characterised by trust-based relations. Subcontracting firms often collaborate with the final firms for the design of the shoe or part of it. The relationship with foreign partners takes the form of a "market" relation, in which the most important element for the final firm is to reduce the cost of the order to the minimum level (Table 9). In Izmir there are no local trade unions contracting salaries and benefits for workers. This is in line with the existence of low salaries (400–600 Euros per month), exploitative working conditions and long working hours (about 10–12 hours per day for 6 days a week in the peak of the season). Thus, in this cluster, the existence of frequent trust-based relationships is far from an idyllic Italianate model of an industrial district characterised by high-wages and high-satisfactory working conditions.

Most of the competitors of the firms interviewed come from the same cluster, but about 30% of the firms interviewed also declared to struggle against competitors coming from other areas in Turkey, and 42% are aware of the possible threat of Chinese firms (which has been blocked by the government with the introduction of trade barriers) (Table 10).

5.3 Levels of Innovativeness of the Cluster Firms

The firms interviewed in Izmir do not develop original technologies but buy them on the international market (in Italy in particular) or on the national market (Table 11). The firms buy the most sophisticated machines from Italy or, to better phrase it, from Italian distributors of Italian machineries that often visit the shoe firms in Izmir and participate in footwear exhibitions that take place in Izmir, as well as in other Turkish cities (Table 12). The technological level of the companies surveyed is not particularly high: in most cases, shoes are 100% handmade. Also the use of ICT is not very much widespread, as only one firm uses CAD-CAM (Table 13). Generally speaking, information on new technologies comes from international and national exhibitions. Izmir's firms declared to participate in the SMAC exhibition in Bologna and the SIMA exhibition in Ancona, that is, fairs specialised in footwear machineries (Table 15).

The firms interviewed in Izmir do not develop original designs. Instead, all of them adapt the products and the design of Italian and international competitors. Going to exhibitions in Istanbul and Italy is one of the most important channels used by the local firms in order to update their knowledge on market fashion trends. Moreover, most of the local firms use journals and specialist magazines and travel to international destinations. The contact with clients is another relevant channel which allows Izmir firms to absorb new knowledge on fashion trends. Also contacts with professional designers and fashion studios are important. Designers are often local, but in three cases, Izmir firms contacted Italian designers from the region of Marche to embellish their models (Table 16).

The infra-district model for spreading information on technology and fashion resembles a "direct peer" mechanism (Belussi et al. 2011). In the district no gatekeeper firm was found absorbing new information (on technologies or markets) from abroad. Cooperation among firms is limited to the vertical dimension of subcontracting relations. Training is realised only using on-the-job mechanisms or combined with the supervision of experts (46% of firms). Entrepreneurs declared that they improved their capabilities in design attending design courses in Italy (Table 14).

Manufacturers in Izmir are very much in line with the fashion production made in Istanbul and in other European cities. Firms have developed design functions internally. Models seen in fashion magazines, or on the Internet, are copied and adapted. In order to enrich the fashion content of the products, some companies have also started to collaborate with Italian designers. Shoes produced by Izmir factories

are sold at a very low price: 20–25 Euros. This is the strategic element that justifies their high competitiveness. The factories visited were technologically backwards and highly verticalised. In Izmir there is no inter-firm division of labour, and this is in strong contrast with the ideal typical model of the Marshallian district, at least in its Italianate version. Only in 1 factory out of 25 a high level of mechanisation was found with the presence of a moving chain. The fear of being copied was adduced by entrepreneurs for the absence of the inter-firm division of labour.

6 The Istanbul Cluster

Istanbul is Turkey's largest city (about 13 millions of inhabitants) and the third metropolitan area in Europe, after Moscow and London. In 2010, the GDP per capita was nearly half of that of the main European countries: 10,339 USD. The Turkish leather industry, which has a 500-year-long history, is at the core of the development of the footwear sector. The shoe industry, which emerged as a small-sized industry in the 1950s, is nowadays one of the most important industries in the country and an important industry in the city. The area of Aymod in Istanbul hosts the most important footwear international trading offices, the main design studios and the headquarters of the most important Turkish footwear firms. Larger firms are localised in the metropolitan area, but there is also a specialised industrial area, Aymakoop, which is located near the international airport. The area, which is similar to those existing in Izmir and Konya, has developed a cluster brand (Aymakoop cluster; www.aymakoop.com.tr). In this cluster, the entire footwear filière can be found: final firms, suppliers, sellers of components and raw material (leather), offices for the repairs of machinery and service firms. The offices of the footwear association (TASD) are also located close to Aymakoop, as well as the specialised school TASEV, which is endowed with very modern testing machinery and control instruments, which, however, are not very much used by the Istanbul firms. Firms localised in this area seem to be better organised than those in the other Turkish clusters. The working environments of small firms appear to be cleaner, safer and more modern. Over time, firms have made some investments in machineries, but only few firms have completed the whole industrialisation process. In the last years, Turkey has substantially increased its exports to neighbouring Russia and Iraq, which have become its main clients.

6.1 Economic Characteristics of the Firms Interviewed

The Istanbul cluster is in a development phase. Despite the global crisis of 2008, in recent years 93.3% of final producers have increased their sales, and all producers of components have declared to be in an expansion phase. In 2011, the firms interviewed produced about 108 million pairs, corresponding to an aggregate

value of sales around 1737 million Euros (Table 5). The average price (in factory) of shoes produced is quite high for Turkey: 43 Euros. Prices range from 5 Euros for plastic sandals to 250 Euros for luxury shoes. On average, footwear firms export 36% of their sales abroad, while producers of components export very little (1.8 of their sales). Export flows are mainly directed towards the Middle East, such as Iran, Iraq, Uzbekistan and Russia.

Most of the firms interviewed produce with their own brand, as well as with their clients' brand (Table 6). Nearly all firms perform manufacturing, design, logistics, sales and marketing internally (Table 7). Owing to our factory visits, we can assert that, in general, the production cycle of the firms in Istanbul is more automated than in Izmir or Konya and that many entrepreneurs are proud to have inserted in the factory some automated machinery in CAD-CAM or in laser technologies. This element is also correlated to the large size of the firms, which allows to benefit from automation and scale economies. Indeed, in six firms we found the moving assembly line.

The cluster is home to a number of leading firms, which we interviewed. The largest firm of our sample, Ziylan, has more than 3000 employees (about 6000 if we consider the whole Ziylan group, which includes 12 companies). Founded in 1972 in Gaziantep and initially specialised in the production of soles, the company currently performs manufacturing and sales activities. It owns 120 shops in Turkey, and 9 in foreign countries; the first foreign shop opened in 2001. Ziylan has several registered brands: Polaris, Kinetix, Flo, Flogart, Torex, Halley, Dockers, and Carmens. Considering the aggregate output, Ziylan Group is as large as Geox, a well-known international brand of the Montebelluna cluster. However, the Ziylan brand is recognised only in Turkey, and its production is focused on less costly products. Recently it opened a subsidiary in the Montebelluna district in Italy (Brand Park).

The second large firm is Gezer, which is a large producer (about 76 million pairs per year) of low-quality-low-price rubber and plastic shoes. The company has two offices in China which manage the relationships with local subcontractors and five plants in Turkey. Gezer sells its products to about 600 autonomous shops and 45 wholesalers.

Another large producer is Hotic, founded in 1938. In terms of sales, Hotic is nearly half the size of Ziylan (one third, if we consider the pairs produced). Hotic is inserted in the high-quality segment, more similar to the "Made in Italy", and employs designers living in Milan. Similar to Ziylan, Hotic's business model combines production and commercialisation. Hotic controls a net of 85 shops in Turkey, few of which in franchising, and 5 shops abroad (the most recent opened in Dubai).

The cluster also includes a large number of dynamic companies, many of which have their own internal designers. The presence of designers employed by the firms suggests that the latter have a certain degree of autonomy on the market and the ability to create (or imitate) new models. Moreover, a large number of firms in Istanbul use creative designers coming from the city or even from Italy for the design of new models such as Hotic and Kemal Tanca. Cabani works with Italian firms such as Paciotti; Molyer has opened a showroom in Italy, and King Paolo is now a distributor of the American brand "Hush Puppies."

6.2 Relationships with Subcontractors and Main Competitors

The firms interviewed work with 951 subcontractors mostly localised in the cluster and with 265 subcontractors localised in the country. More than half of the firms interviewed rely heavily on subcontractors' activity. On average, every firm deals with 73.2 subcontractors located nearby and with 53 subcontractors located in the country. Moreover, 5 interviewees operate with 95 subcontractors located abroad (Table 8). This represents a strong evidence of the initial internationalisation of the Istanbul cluster. Larger firms produce the most labour-intensive low-value phases in China, Taiwan, Vietnam and India. Some professional traders based in Istanbul supply the largest Turkish chains (Kemal Tanca, Hotic) with low-cost items manufactured in China. A trader we interviewed estimated that the Chinese import of semi-finished or finished goods covers half of the internal shoe market.

The relationship with subcontractors here is less stable than in other clusters. Only about 51% of the firms interviewed have maintained stable relationships with their subcontractors. However, most of the firms have a partnership-type relation with their subcontractors (Table 9).

All main competitors are located here. For only 33.3% of the interviewed entrepreneurs, China appears to be a threat (Table 10).

6.3 Levels of Innovativeness of the Cluster Firms in Istanbul

In the footwear industry, the activity of copying the models of international rivals is very diffused. However, every firm reaches large success only if it is able to differentiate its style from that of the other competitors. Among the Istanbul firms, even if the design is not always truly original, the activity of adaptation and redesign requires much effort (Table 11). This is confirmed by the indicator referred to the presence of designers and pattern makers in firms, as well as by the number of new products introduced in production every year (measured as weight on sales), which, on average, is about 55%. Among the firms interviewed in the footwear cluster, six had the capability of developing in-house "original and innovative" new products, consisting in a radical new design. Only two firms (Ziylan and Gezer) had developed new technologies protected by international patents (EPO patent). Innovations internationally patented regarded waterproof soles and injected soles. For the majority of the sample (86.7%), new technologies come from abroad (Italy, Germany, Taiwan). Local firms buy foreign technologies from the international producers of footwear machinery (through their Istanbul dealers) (Table 12). The use and investments in ICT declared by the Istanbul firms was significantly in contrast with the results obtained in the other two clusters of Izmir and Konya (Table 13). On-the-job training was very common, while more complex forms of learning were not commonly applied (Table 14).

The three most important sources for knowledge acquisition indicated by our interviewers are (a) international exhibitions or conferences, (b) national exhibitions or conferences and (c) international subcontractors and specialised suppliers. Drawing on these data, local sources seem to play a marginal role. In fact, Istanbul firms appear to benefit more from external and international linkages. The participation in international fairs is the most important source of information on fashion. Also the Internet seems to be a crucial source. Fashion is also absorbed through international travels and the reading of journals and specialist magazines (Tables 15 and 16).

7 The Montebelluna Cluster

The Montebelluna cluster, in the province of Treviso, includes about 400 companies and 6000 employees located in Montebelluna, while about 11,200 workers are employed globally by the Montebelluna firms (AIDA source). Montebelluna is the world leader in technical sport shoes, ski and trekking boots, motorcycle boots and bicycle shoes. Open to the international business, the district is also characterised by the presence of several international companies and by homegrown multinationals (Sedita et al. 2013) developed in the 1990s. However, nowadays the district is still characterised by a non-negligible number of midsize family firms and by some important large Italian-owned companies. The latter originate from the initiative of the first founders of the district, at the end of the nineteenth century and during the first decades of the twentieth century (Tecnica, Caberlotto, Calzaturificio Alpina, Dolomite, Munari and Nordica). In fact, half of the founders of the district have successfully remained active on the market even after the third generation (Durante 1997). As for the foreign-owned firms, some multinationals (MNCs) entered the cluster during the 1970s, such as Salomon which acquired S. Giorgio; Nike, which acquired Bauer; and HTM (Head, Tyrolia and Mares) which acquired Brixia S. Marco and Munari. In the 1990s also Benetton—an Italian-owned company originated in the region of Veneto—started a process of local firm acquisition by buying Nordica. After a few years, Benetton withdrew. Within the cluster, it is possible to observe the presence of local agents/actors such as technological centres, chamber of commerce, local trade unions, entrepreneurial associations and the Foundation Museo dello Scarpone di Montebelluna, a specific local organisation managed by a lively director who organises several local activities (training, information exchange through firm networking, conferences, etc.). Thanks to Nordica's technological revolution in 1966 consisting in the introduction of plastic in winter boots, in the 1980s the Montebelluna cluster became the most important international centre for the production of winter shoes and boots. It has been estimated (Corò et al. 1998) that, from the 1980s to mid-1990s, 75% of the world market of ski boots, 65% of after-ski, and 80% of motorbike boots were produced in this area. The GDP per capita in the province of Treviso is 22,064 Euros, and there is a plant every nine inhabitants. The levels of unemployment are particularly low with respect to the national average.

After World War II and during the 1960s, the Montebelluna entrepreneurs started to modify the ski boot rendering it more stable on the ski and more robust. In fact, they introduced a steel plate on the sole and a new blockage system. In 1962, the boot with the metal lever appeared for the first time, promptly adopting an innovation appeared in Switzerland. This was a minor innovation which offered a much better closure compared to the traditional shoelaces. In the same period, the vulcanisation of the sole was introduced, a method that joined the sole with the upper; then, the PVC injection method was introduced, which is a more rapid system to link the sole and the upper. During the 1960s producers sponsored a wide standardisation of products, components and ski binding. In 1967 Montebelluna experimented the first models of boots with plastic-covered leather.

The real big technological revolution had followed the creation of a new technological system patented by Lange in 1964 in Colorado. In fact, Lange—which presented its first exemplar of plastic boot in the US exhibition—was not able to produce a really workable boot that could be manufactured for the mass market. Its invention was in fact refined in Montebelluna by Nordica, which substituted the Lange fusion with the injection method, combining the machinery competences of a firm located in Padua (the Lorenzin firm), an injection producer for rubber sole, and the knowledge of a trader of plastic raw materials, local agent of Bayer. This innovation was a game changer for the industry; Lange himself opened a factory in Italy near Montebelluna in order to have access to the modified technology and to the technology suppliers already well developed in the nearby area.

During the 1960s and 1970s, the firms in the district continued their stable growth, and the production of ski boots shifted from 180,000 in 1963 to 1000,000 in 1970 and to 4,100,000 in 1979. Many of the historical firms adopted the new technology (Nordica, Dolomite, Munari, S. Giorgio and Tecnica), while many others, which did not believe in these novelties (or that did not have the necessary funds to reorganise their productive cycle), started to diversify into new products (sport shoes, leisure shoes, etc.). Final firms built their design competences in connection with a design school based in Vigonza, near Venice, a school founded by entrepreneurs of the Riviera del Brenta District. The school is now specialised in training fashion designers and CAD-CAM experts.

The second relevant diversification was the introduction of the after-ski boot in plastic material. The first model was the Moon Boot by Tecnica (1970) which was inspired by the astronauts that in that year flew to the moon. In a few years, the production of after-ski items took off. At the end of the 1970s, Montebelluna was producing about 7.5–8.0 million pairs of this new product.

The third diversification was in sport shoes such as jogging, ice and roller skates, basketball, football, motocross, dancing, cycling, tennis and leisure shoes. The overproduction of the 1980s created a typical firm shake-out, with the exit of some important producers of the district. However, new products (with the fourth productive diversification) substituted the decline of the demand for the more traditional production. In the subsequent period, during the 1990s, new products such as trekking, snowboard, in-line skates, football shoes and sport shoes for walking (city shoes) were adopted or created. During the 1990s two local leading firms

emerged: Geox and Stonefly. In 2010, Geox's sales represented 40% of the total district (2 billion Euros). In the last years, the delocalisation processes have reduced very much the local employment in footwear firms, but an increase was observed in the number of firms with FDI (Belussi 2010).

The district can no longer be described as a classical example of canonical (Marshallian) industrial district. In fact, the district has undergone a process of dynamic evolution which is not explained by the existence of externalities but by a localised process of learning and innovation that has very much created a wide heterogeneity of high-performing firms, giving rise to the forming of a group of diversified leading firms of medium-large size (Osem 2001). This process of hierarchisation has also occurred in other Italian clusters (Belussi and Sedita 2009; Bellandi et al. 2010). Official data on export trends of the province of Treviso show that in 2001, local firms exported about 430,292,000 Euros towards Romania (ISTAT Data 2002). Such data register all the operations for supplying components to Romanian subcontracting firms and correspond to about 35% of the total output produced in the Montebelluna district with reference to the shoe and sport clothing segment. In the last years, new producers from Northern Europe, Canada and the USA have entered the sportswear business.

The two largest firms in the district are Geox and Tecnica. Tecnica acquired a famous Austrian company—Lowa—in 1993; then, a Montebelluna firm, Dolomite, in 1998; then Nordica in 2002; and then Rollerblade, in 2003, the US company owned by Benetton; and finally in 2006, Tecnica acquired Blizzard. When firms recur to offshoring, they develop in-house the tertiary function of design, management, logistic and research. In fact, we can observe that in Montebelluna, about 66.3 of employees are qualified. Also many unskilled workers are employed in the service function of shop assistants (Table 4).

Considering that the firms interviewed employ 5589 workers locally, employment related to foreign plants has been estimated at 7372 working units (AIDA Bureau Van Dijk 2013). Thus, Montebelluna firms (and in particular Garmont, Grisport, Lotto Sport, Tecnica, Scarpa, Alpinestars and Geox) manage a larger number of employees outside the cluster. In an effort to raise its reputation in the US, Garmont North America has recently relocated its commercial facility from Vermont to Portland, an American footwear cluster originated around the well-known Nike company.

7.1 Economic Characteristics of the Firms Interviewed

The Montebelluna cluster has already reached the phase of maturity, if not stability-decline. However, despite the global crisis of 2008, in the last 5 years, about 40% of the final producers have increased their sales, while all producers of components have declared to be in a phase of stability or decline. During fiscal year 2011, the firms interviewed produced about seventy million pairs of shoes, corresponding to an aggregate value of sales of about 2.6 billion Euros. Producers of components

earned 35 million Euros. The average price (in factory) of shoes produced is extremely high: 72.2 Euros, with a range of variation between 140 Euros and 30 Euros. Data on prices suggest that firms in Montebelluna produce a very costly product and that they are inserted in a high-quality niche (the technical market of sport shoes). Firms' export flows are very large (Table 5). On average, footwear firms export 63% of their sales abroad, while producers of components do not export. Export flows cover all industrialised and emerging countries. Moreover, 70% of firms produce with their own brand, and only a minority fall within a mix category producing with their brand and with that of their clients; four firms are only subcontractors that work for external orders coming from national and international firms (Table 6).

As for the organisation of the production cycle, only 36% of all firms perform manufacturing and assembling internally, as well as logistics, sales and marketing. In 40% of the cases, local firms manufacture only prototypes in the cluster (Table 7). These latter firms are among the largest and more technologically advanced of the cluster. They built their global supply chains during the 1990s, relocating some manufacturing activities abroad.

7.2 Relationships with Subcontractors and Main Competitors

The firms interviewed declared to work with 233 subcontractors. The local subcontractors located in the cluster are 147, and foreign subcontractors are 87 (Table 8). Firms operating with subcontractors are 83.4% of our sample (25 firms out of 30). On average, each firm deals with 7.7 local subcontractors and with 4.2 foreign subcontractors. Therefore, the Montebelluna cluster is no longer a self-contained Marshallian district, but it is fully inserted in global supply chains. Firms have a partnership type of relation with local subcontractors (this happens for 62% of the firms interviewed). On the contrary, the relationship with foreign subcontractors often develops on the basis of pure market transactions (Table 9). This introduces a behavioural bifurcation in a typical Marshallian district.

When considering the final product, there are several sub-filières in the cluster, but many final firms share the same specialised subcontractors. Machinery, component and mould producers are localised mainly in the Montebelluna area (Table 10). Within the cluster, there are many lateral linkages with complementary industries (plastic, mechanical machinery, moulding) and with the related sectors of commercial distribution. In many firms, the only activity performed is design and prototype production, while assembling is performed in foreign low-labour cost countries. High-quality and low-volume products are generally subcontracted to local firms.

This cluster is particularly competitive at international level, with the main competitors all originating from the cluster itself. Notwithstanding that, some Middle East producers and Taiwan-Chinese firms are now starting to be perceived as potential rivals (Table 11). The absence of trade barriers against imports from China has damaged district firms and—according to some entrepreneurs—has caused the

closing down of many local subcontractors now replaced by cheap local firms run by Chinese people.

In a few years, frontier firms (Andrews et al. 2015) and global supply chains run by MNEs (such as Nike, ¹⁰ Adidas and Puma) have outperformed Montebelluna's leadership in sport shoes. They have hugely invested in R&D, advertising, marketing and sponsorship of athletes. On the other hand, it is also necessary to consider that during the 1990s, fast-growing Asian subcontractors became impressively large-scale firms, offering Western brand producers, as well as the large firms of the Montebelluna districts, low-cost manufacture of subcontracted items. ¹¹ In Montebelluna, the only fast-growing firm in the last decade has been Geox which, in the last years, reached a sales threshold of nearly 1 billion Euros (the value includes the foreign firms controlled by Geox). However, Geox, which is the largest firm in Montebelluna cluster, is a dwarf compared with Nike (24 billion dollars sales in 2011 and 44,000 employees) or with similar competitors.

Currently, firms in Montebelluna are surviving or slightly growing thanks to the adoption of complex low-volume, high-tech and high-value strategies.

7.3 Level of Innovativeness of the Montebelluna Cluster Firms

The strong international success of the Montebelluna district is explained by the intense innovation activity going on among the local firms. Montebelluna is now a typical knowledge-intensive cluster. The following are some interesting survey results. In 19 out of 30 firms, an endogenous innovation activity is visible and highlighted by the presence of R&D laboratories. Innovation activity in the cluster is measurable also in terms of innovation output, namely, through the number of international patents registered by the local firms. Moreover, 18 firms have registered patents in the EPO data base. However, some large firms are also performing R&D in foreign countries, such as Alpinestars that own a subsidiary unit in California with about 80 scientists and engineers. On average, in our sample, the expenditures on R&D cover 2.3 of sales. The footwear cluster firms interviewed usually develop original products as well as new technologies in machinery and in design (Table 11).

¹⁰It is important to note that in the USA, in Portland, (in the State of Oregon), Nike has given rise to an American cluster of 300 firms (final firms and subcontractors), 3200 self-employed workers and consultants and 14,000 workers. It has been estimated that the average annual salary in Portland is about 82,700 dollars. Clearly, though, local workers are employed only in high-tech or high-value functions. Adidas (which was bought in the last years by a former manager of Nike) recently moved its commercial American headquarters here.

¹¹An example of these fast-growing Asian firms is represented by the case of the Tsai family that in 1988 founded in Hong Kong Yue Yuen, a firm that in 2011 produced 326 million pairs with sales amounting to 7 billion dollars (with 460,000 employees) and that has opened new factories in China together with a retail shop chain (called Pou Chen).

Only seven firms are focused on adapting and redesigning existing designs of other firms (mainly Italian, but also some foreign firms). Considering the collection of the last 2 years, the percentage of new models introduced is very high: 59.6%. This is confirmed also by the indicator referred to the number of new products introduced in production every year, weight on sales. For the majority of the sample (96.6%), technologies in product (CAD) and processes (machinery) come from the local market (Table 12). Thus the strength of this cluster relies in the capacity to feed local firms with the endogenously produced technologies. Local technologies are often (46.7% of the sample) complemented with foreign high-tech technologies coming from Europe and the US. The use and investments in ICT by the interviewed firms is quite high. ICT in management is largely adopted (3.77), particularly in order to connect clients and suppliers (3.70).

On-the-job training is a very common practice among the firms of our sample, but also more articulated forms of learning (use of consultants and supervisors) are frequently adopted. Only five firms declared to be imitating their main competitors. Considering more formalised forms of learning, we found internal training, external training and a wide use of benchmarking activities. In few cases firms used the participation in institutional projects and initiatives promoted by local and/or industry associations and visited "best-practice" companies (Table 14). The three most important sources of information on new technologies indicated by our interviewees with nearly equal weight are (a) international exhibitions or conferences (with a weight of 3.57 on a 1–5 scale), (b) local subcontractors (3.20) and (c) and international clients (2.97). Local knowledge spillovers in the cluster appear to be important, but also the cluster's openness and the external linkages created by the participation in foreign exhibitions or the use of international subcontractors (2.77) and international partner firms (2.60). Local competitors are still an important source for creating the cluster's competitive advantage. This is because local competitors are in fact international leaders. Local institutions, business associations, universities, private service providers, local service centres or partner firms now play a very marginal role. Perhaps they were more important in cluster's take-off phase (Table 15).

As for the sourcing of information on fashion trends, firms use journals and specialist magazines (with a score of 4.93 on a 1–5 scale), the Internet (4.87) and international sectoral exhibitions (4.40). Also travels are important, both national (3.57) and international (3.57). To conclude, important linkages are both internal-(local competitors and subcontractors) and external-to-the-cluster (international competitors, clients, partner firms, subcontractors and exhibitions) (Table 16).

8 Some Conclusions: Turkish and Italian Footwear Clusters in Comparison

Our analysis compared four footwear clusters in different stages of their development. In both Turkish and Italian clusters, ancient manufacturing traditions constituted the base for the development of a specialised industry, which is largely based on small-sized firms run by local entrepreneurs. And again, in both Turkish and Italian cases, the growing internal market was very important and particularly the youngest generations' demand. As we have mentioned before, the internal market is still very much important in the Turkish case, much more than what happens in the Italian case. These similarities between Turkish and Italian footwear clusters, as well as other aspects that characterise the clusters, could suggest that the former are somehow replicating (with the necessary changes) an evolutionary path of growth already experimented by the latter in the past, during the 1980s and 1990s. However, important differences characterise these clusters: firstly, the fact that many firms in Montebelluna operate in high-value niches, which dive them some market power. The average price in Euros for shoes is higher for the technical shoes of the Montebelluna cluster (70.7) and lower for the more traditional products made in Konya (23.5), Izmir (35) and Istanbul (43.2). Secondly, in the Turkish clusters, the production is primarily organised for the domestic market, while in Montebelluna, the target market is (mainly) international. Indeed, Montebelluna firms export 74.5% of their sales, while in Konya, Izmir and Istanbul, this percentage is much lower (14.6%, 24.6% and 32.4%, respectively). Thirdly, firms' innovative capacity is very different, with the Turkish firms producing almost handmade shoes and the firms in Montebelluna producing high-tech materials and techniques. Another relevant difference obviously relates to the average cost of labour in the four clusters. In the Turkish clusters, labour costs per hour are around 15TL (Turkish lira), thus, about 4 Euros, while in Montebelluna they are about 30 Euros. The average salary for a skilled worker in Montebelluna amounts to 1500 Euros and only 750 in Istanbul.

In Montebelluna, an important source of innovation lies in the fact that technologies and components come from the local market and only for 22.7% from abroad. Firms in the district are very innovative, and new technologies and innovation are produced here. On the other hand, Turkish firms are mainly imitators and acquire their technology from Italian producers. In all clusters, firms have direct access to the different information and knowledge sources.

In Turkish clusters, manufacturing activities are still very important (Eraydin and Armatli-Köroğlu 2005). Most companies perform all manufacturing and assembly phases internally. The inter-firm division of labour is low, and subcontracting involves not only specialised parts but also finished products for large retail chains, thus volume-subcontracting. In the case of Montebelluna, firms have outsourced the manufacturing phases to foreign countries or have created their own manufacturing plants abroad (particularly in Romania). In the Montebelluna cluster in particular, firms have relevant investments in ICT for management and commercial purposes.

These differences create different conditions for cluster development. Indeed, the comparison among clusters in the different stages of development paves the way for a reflection on the key factors that trigger cluster evolution. Both in the Turkish and in the Italian clusters, the presence of district-like features recognised as part of the "Marshallian atmosphere" (Belussi 2015) has been an important lever for cluster emergence, as well as for the first stages of cluster development. In these initial stages, cluster external economies and the driving force of demand (the domestic one in particular) have stimulated entrepreneurship and creativity. However, after these early stages of development, Montebelluna and Istanbul have continued to grow,

while the other two clusters have failed to progress. An important factor that enabled the first two clusters to evolve over time is given by the presence of leading firms acting as bridges with external markets, knowledge and external technologies connecting local value chains with global value chains (Belussi 2010, 2015). Thus, factors important in the initial stage explaining agglomeration, relevant for locating and for staying in the cluster, are no longer important in the maturity stage to trigger growth (Boari et al. 2016; Tödtling et al. 2017; Pandit et al. 2017; Hervas-Oliver et al. 2017). This is clear in Montebelluna, which has a longer history than the other clusters. However, even in Turkey's case, the cluster characterised by the presence of leading enterprises is the one that experienced the strongest growth. In the Turkish case, leading firms operate beyond the boundaries of the single cluster, because leaders are organisers of national supply chains that stretch out on all Turkish clusters' footwear. In addition, leading firms in Turkey have direct access to the market, through their own shops. Albeit their international activity is still relatively limited, leaders in Istanbul are increasing their productive and commercial activities abroad, including experimenting the FDI strategy (in the Zylan case). However, Turkish leading firms are still few, and, at the moment, it is unclear whether they will continue to drive growth throughout the local system.

In Turkey, the growth of these business leaders—as well as that of the entire footwear industry—was supported by protectionist policies adopted mainly against Chinese products (Karacaovali 2011). These interventions seem to have been effective in supporting the whole manufacturing system, whose growth prospects are positive. However, new type of policies are needed, capable of supporting innovation, improvement of environmental conditions and workers' safety. Public investments in design and innovation could be promoted, including scholarships for studying in top design schools based abroad, in European countries or in the USA.

References

ANCI. (2011). Shoe report. Milano: Franco Angeli.

Andrews, D., Criscuolo, C., & Gal, P. (2015). Frontier firms, technology diffusion and public policy: Micro evidence from OECD countries (No. 2). OECD Publishing.

Baum, J. A., & Haveman, H. A. (1997). Love thy neighbor? Differentiation and agglomeration in the Manhattan hotel industry, 1898-1990. *Administrative Science Quarterly*, 42, 304–338.

Bellandi, M., Caloffi, A., & Toccafondi, D. (2010). Riaggiustamento delle reti distrettuali e differenziazione dei percorsi di reazione alla crisi di mercato. In A. Zazzaro (a cura di), Reti d'imprese e territorio. Bologna: il Mulino.

Belussi, F. (2006). In search of a theory of spatial clustering: Agglomeration vs active clustering. In B. Asheim, P. Cooke, & R. Martin (Eds.), *Clusters in regional development* (pp. 69–89). London: Routledge.

Belussi, F. (2010). The evolution of a technologically dynamic district: the case of Montebelluna. In F. Belussi & A. Sammarra (Eds.), *Business networks in clusters and industrial districts*. Abingdon: Routledge.

- Belussi, F. (2015). The international resilience of Italian industrial districts/clusters (ID/C) between knowledge re-shoring and manufacturing off (near)-shoring. *Investigaciones Regionales*, 32, 89
- Belussi, F., & De Propris, L. (2014). They are industrial districts, but not as we know them! In F. Giarratani, G. J. Hewings, & P. McCann (Eds.), *Handbook of industry studies and economic geography* (pp. 479–492). Cheltenham: Edward Elgar.
- Belussi, F., & Pilotti, L. (2002). Knowledge creation, learning and innovation in Italian industrial districts. *GeografiskaAnnaler*, *Series B, Human Geography*, 84(2), 125–139.
- Belussi, F., & Pilotti, L. (2011). Learning and innovation by networking within the Italian industrial districts: the development of an explorative analytical model. *Sinergie Italian Journal of Management*, 58, 3–43.
- Belussi, F., & Sedita, S. R. (2009). Life cycle vs. multiple path dependency in industrial districts. *European Planning Studies*, 17(4), 505–528.
- Belussi, F., Sedita, S. R., Aage, T., & Porcellato, D. (2011). Inward flows of information and knowledge in low-tech industrial districts: Contrasting the 'few firms gatekeeper' and 'directpeer' models. In P. Robertson & D. Jacobson (Eds.), Knowledge Transfer and Technology Diffusion. Edward Elgar: Cheltenham.
- Boari, C., Elfring, T., & Molina-Morales, X. F. (Eds.). (2016). Entrepreneurship and cluster dynamics. London: Routledge.
- Chung, W., & Kalnins, A. (2001). Agglomeration effects and performance: A test of the Texas lodging industry. *Strategic Management Journal*, 22(10), 969–988.
- Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of Management Review*, 14(4), 532–550.
- Eraydin, A., & Armatli-Köroğlu, B. (2005). Innovation, networking and the new industrial clusters: The characteristics of networks and local innovation capabilities in the Turkish industrial clusters. *Entrepreneurship and Regional Development*, 17(4), 237–266.
- Gerring, J. (2004). What is a case study and what is it good for? *American Political Science Review*, 98(02), 341–354.
- Giblin, M., & Ryan, P. (2015). Anchor, incumbent and late entry MNEs as propellents of technology cluster evolution. *Industry and Innovation*, 22(7), 553–574.
- Hervas-Oliver, J. L., & Albors-Garrigos, J. (2014). Are technology gatekeepers renewing clusters? Understanding gatekeepers and their dynamics across cluster life cycles. *Entrepreneurship and Regional Development*, 26(5–6), 431–452.
- Hervas-Oliver, J. L., & Boix-Domenech, R. (2013). The economic geography of the meso-global spaces: Integrating multinationals and clusters at the local–global level. *European Planning Studies*, 21(7), 1064–1080.
- Hervas-Oliver, J. L., Lleo, M., & Cervello, R. (2017). The dynamics of cluster entrepreneurship: Knowledge legacy from parents or agglomeration effects? The case of the Castellon ceramic tile district. *Research Policy*, 46(1), 73–92.
- Karacaovali, B. (2011). Turkey: Temporary trade barriers as resistance to trade liberalisation with the European Union? (Fordham University Department of Economics Discussion Paper, 2011–02).
- Kumral, N., & Akgüngör, S. (2006). Long-term industrial competitiveness: Challenges for the Aegean region (Ege University Working Paper No. 0613).
- Marshall, A. (1920). Principles of economics. London: Macmillan.
- McCann, B. T., & Folta, T. B. (2011). Performance differentials within geographic clusters. *Journal of Business Venturing*, 26(1), 104–123.
- Menzel, M. P., & Fornahl, D. (2009). Cluster life cycles—Dimensions and rationales of cluster evolution. *Industrial and Corporate Change*, 19(1), 1–34.
- Narula, R. (2014). Globalization and technology: Interdependence, innovation systems and industrial policy. New York: Wiley.
- Osem. (2001). Rapporto di ricerca. Camera: di Commercio di Treviso.

Pandit, N., Cook, G., & Beaverstock, J. (2017). Economies and diseconomies of clusters: Financial services in the city of London. In F. Belussi & J. L. Hervás-Oliver (Eds.), *Unfolding cluster* evolution. London: Routledge.

- Sedita, S., Caloffi, A., & Belussi, F. (2013). *Heterogeneity of MNEs entry modes in industrial clusters: An evolutionary approach based on the cluster life cycle model.* Paper presented at the 35th DRUID Celebration Conference, Barcelona 17–19 June 2013.
- Shaver, J. M., & Flyer, F. (2000). Agglomeration economies, firm heterogeneity, and foreign direct investment in the United States. *Strategic Management Journal*, 21(12), 1175–1194.
- Stake, R. E. (2013). Multiple case study analysis. Guilford Press.
- Ter Wal, A. L., & Boschma, R. (2011). Co-evolution of firms, industries and networks in space. *Regional Studies*, 45(7), 919–933.
- Tödtling, F., Sinozic, T., & Auer, A. (2017). Driving factors of cluster evolution: A multiscalar comparative perspective. In F. Belussi & J. L. Hervás-Oliver (Eds.), *Unfolding cluster evolution*. London: Routledge.
- World Footwear. (2011). https://www.worldfootwear.com/docs/2011/2011WorldFootwearYearbook.pdf
- Yin, R. K. (2011). Applications of case study research. London: Sage.
- Yin, R. K. (2013). Case study research: Design and methods. London: Sage.