



Revista Portuguesa de Estudos

Regionais

E-ISSN: 1645-586X

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Associação Portuguesa para o  
Desenvolvimento Regional  
Portugal

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Revista Portuguesa de Estudos Regionais, núm. 25-26, enero-abril, 2011, pp. 25-35

Associação Portuguesa para o Desenvolvimento Regional

Angra do Heroísmo, Portugal

Available in: <http://www.redalyc.org/articulo.oa?id=514351890002>

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## THE DYNAMIC OF FOOTWEAR INDUSTRY IN THE SOUTH AND IN PUGLIA

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### **Resumo:**

Nas características de cada sistema produtivo local inclui-se uma base cultural de cooperação e conhecimento das empresas e sujeitos do sistema, considerados individualmente e em conjunto, que conduzem a benefícios económicos, e que resultam de economias externas à empresa individual mas internas ao sector.

O sucesso dos sistemas produtivos locais pode ser explicado pelo seu nível elevado de especialização, que gera um crescente conhecimento tácito através da experiência de cada actor e das interacções entre eles. Sem qualquer dúvida, a sua competitividade e reprodução surge de uma integração bem sucedida de conhecimento tácito e codificado, que é possível ser transmitido tanto dentro da estrutura produtiva como entre estruturas diferentes. O alto grau de especialização nos sectores tradicionais, o que significa que inovações incrementais prevalecem sobre inovações radicais, foi muita vez identificado como uma das causas da baixa competitividade da economia italiana. No entanto, os sectores tradicionais são o berço de um núcleo de empresas médias – muitas vezes estruturadas em holdings – que atingiram uma posição global dominante em nichos de mercado. Partindo desta ideia, este artigo tem como objectivo testar a lei de Gibrat, usando uma análise da informação contabilística e outra recolhida directamente, e também verificar se o sector do calçado no Sul e em Puglia está a evoluir na sua estrutura produtiva de forma a atingir melhores resultados ao nível da eficiência e competitividade.

**Palavras-chave:** Conhecimento; Sector do calçado; Sul de Itália; Sistema produtivo Local

**Códigos JEL:** D8, L2, L5.

### **Abstract:**

The specific characteristics of each local productive system include the cultural background of cooperative behaviour and knowledge of each of the system's enterprises and subjects, taken individually and as a whole, which drives their pursuit of economic benefits, which are the result of economies that are external to the individual enterprise but internal to the sector. The success of local productive systems can be explained by their high degree of specialization, which generates an ever increasing amount tacit knowledge through the experience of each actor and the interactions between them. Without a doubt, their competitiveness and reproducibility arises from the successful integration of tacit and codified knowledge, which makes it possible to transmit such knowledge both within each productive structure and between different structures. The high degree of specialization in traditional sectors, which means that incremental innovations prevail over radical ones, has often been identified as one of the causes for the reduced competitiveness of the Italian economy. Nevertheless, traditional sectors are home to a nucleus of mid-sized enterprises – often structured in holdings – that have achieved a dominant position in global niche markets. On the basis of the above, this paper aims to verify the Gibrat's law – using balance sheet analyses and information collected through a direct survey – and also to verify whether the footwear sector in south and in Puglia is undergoing an evolution of its productive structure that can achieve better results in terms of efficiency and competitiveness.

**Keywords:** Knowledge; Footwear sector; South of Italy; Local productive systems

**JEL Codes:** D8, L2, L5.

## 1. Introduction

The small size of enterprises and family capitalism, peculiarities of the Italian productive system, are some of the causes behind the stagnation of the Italian economy, which has long been experiencing growth rates below the European average.

Thus, the so-called *southern problem* is still unresolved and although southern Italian regions performed better in the last part of the 20<sup>th</sup> century, delayed development and accompanying difficulties have made industrial policy interventions designed to revive the Italian economy, more complex. During 2001-2007, the GDP grew at an average of 0.7% per year lower than in central and northern Italy and slower than in 2006, which saw the largest increase since 2001. All this prompts one to ask whether or not this improvement was related to the restructuring of the existing production. Therefore, in this paper, we analyse one of the traditional "made in Italy" sectors – footwear - which has lost its former significance in the national productive structure but remain dynamic in the Salento, area of Puglia, perhaps due to a change in the organizational structure which has facilitated both a productive recovery and competitiveness in foreign markets.

The study includes a theoretical part that aims to show that within local productive systems, the growth of enterprises from small to medium size - often structured in holdings - has been enabled by their local context, which facilitates the formation and transmission of knowledge related to human capital and increased production capacity. The empirical part of the research uses balance-sheet analyse of AIDA data and information derived from a direct survey to verify the Gibrat's (1931) law and investigate whether footwear firms from the south, and from Puglia in particular, are increasing in size in a bid to change their organizational structure and increase the dissemination of knowledge.

## 2. Knowledge and Innovation

Production factors are often described in the economics literature as land, work and capital. However, knowledge is an important factor in the production of any good, not just the latest scientific contributions, but traditional knowledge as well<sup>1</sup>.

If technical progress – defined as the residual dimension size available to everyone - is decisive in raising income levels (Abramovitz, 1956; Solow, 1957), knowledge is the driving force of innovation, which is the result of technical progress and does not fall like 'manna from heaven', but is instead generated endogenously. If an invention is the result of a brilliant idea, which, in most cases, is not born out of economic, profit motivations and may not lead to quantifiable (in monetary terms) benefits, then innovation is the introduction of a new good or a new productive method, which may not necessarily be the result of scientific discovery (i.e. invention), but can consist of new ways of marketing, the change to access new sources of raw materials and/or semi-finished goods, or new forms of industrial organization (Schumpeter, 1971). All these actions, which are embodied in the term innovation, may stem from something that is already known but which is exploited in a new way, or from goods being offered to different consumers. The existence of economies outside of the individual enterprise, but within the industrial sector was recognised by Marshall as supporting the validity of neoclassical theory, and has been used (Arrow, 1962) to explain the relationship between current productivity and past production of capital goods, and was estimated according to a learning curve. This learning curve shows that although capital performance is decreasing, production is occurring at increasing returns to scale. Thus, production activity gives birth to experience, which becomes knowledge and later learning, which is usable by everybody at no cost.

Therefore, innovation activity depends on knowledge that can be classified as tacit, specific, complex and independent (Winter, 1987) and the more it changes, the greater its effectiveness, due to the relations between different parts of the system and/or between groups.

<sup>1</sup> Aristotle's theory, about the scientific method, refers to knowledge that comes from deduction ability and also, from sensitive perception or, to be precise, experience (Kant, 1950).

In addition to codified knowledge, which has resulted from the genius of a few, we also have to consider tacit knowledge (Polanyi, 1958), which is based on experience and can give rise to innovation by inductive methods. The combination of codified and tacit knowledge leads to localised knowledge (Antonelli, 1995; 1999), which is not easily imitable and is characteristic of industrial districts.

Italian industrial districts are not a union of companies that have deliberately relocated; they are based on the ability to combine, within a production chain, the principal division of work within a context of cooperation, which makes it possible for firms to benefit from factors that lie outside of the individual enterprise, but within the sector. Over time, companies that operate in industrial districts, accumulate experience of production techniques, learn from theirs and others' mistakes, interact with suppliers and customers and share the information collected, all of which enables them to increase yield. This process can be set in motion - by short term - changes to the means of production in response to changes in demand and relative price factors, and by making different use of tangibles goods, such as equipment, which can only be changed in the very long term, and intangible property, such as trademarks (Antonelli, 2001). In other words, product innovation, based on demand for different characteristics in an existing good, can produce substantial improvement in corporate profitability, within existing infrastructures and using known techniques. The wider the knowledge and the competence of interdependent enterprises within the same territory, the lower the risk of technological discontinuity through the introduction of innovation. Enterprises embark on innovation work based on pressure from users, demands from the market in which they operate, availability and relative factor prices, and also the power at their disposal, i.e. the intangible factors, which can be exploited to generate positive effects through the introduction of an innovation. According to transaction cost theory, firms' relationships founded on market failures and mechanisms of corporate governance, while, according to resource based views, internal resources justify and produce joint ventures, partnerships or any other kind of intra-firm relationship. Firm governance

and performance analysis is not based on external factors such as the sector structure in which the firm acts, but rather on their own tangible and intangible capabilities. In fact, every firm possesses tangible and intangible resources (Penrose, 1959), that give each its unique character and provide a sustainable competitive advantage.

In Italian industrial districts, firms have external economies that can be identified not just in terms of their low transaction and production costs, but also in terms of their ability to innovate, springing from the flow of ideas and information and from interaction among the subjects. Indeed, it must be acknowledged that multiple firms operating in the same sector and geographical area can achieve different results thanks to the ensemble of resources and skills available to each.

The emergence of information and communication technology (ICT) unquestionably has expanded and facilitated communication and communication skills and, for more sophisticated companies, the exchange and reconstruction of tacit and codified knowledge have generated network externalities that have improved their productivity and efficiency. Though the full benefits of ICT use have yet to be reaped in many systems, which can show wide differences in terms of quantity and quality, expectations are that for those firms with good technical efficiency, the effects in the middle-long term will be positive. In southern economies, where the introduction of ICT is slower, there is less R&D activity and formation of human capital is less incisive, while major reorganisation of products and markets is less necessary. It is more important to make changes to firm structures and the relations among operators, in order to efficiently and effectively use the innovations within the sector, adequately exploiting the competences of every enterprise.

### 3. Southern economy production structure

The unsatisfactory performance of industrial production, investments and innovation and the consequent loss of competitiveness and decline in productivity have all contributed to the decline of the Italian economy. The reduction in productivity in particular has affected the whole economy, and in the industry sector, after an increase of 2% in the ten years 1985-1995, there was a negative increase in the next period and a decline of 1.4% per year in 2000-2005 (Banca d'Italia, 2007). In 2006, work productivity in industry, which had been showing a slow recovery since 2003, recorded a substantial increase and the GDP growth rate in the Italian economy, although lower than the European average – 1.9% versus 2.9% -increased fourfold from the 0.4% average for 2002-2005. In terms of manufacturing, in the south in 2006 the value added per unit of work increased to 2.6% compared to 2.2% for the center-north and was the highest value recorded for the entire industry, 0.8% and 1.3% respectively. Also in 2006, the average productivity of southern workers increased, although it was still 18% lower than in the center-north, which has higher employment and a lower share of irregular work than the south (Banca d'Italia, 2008). Comparing the dynamics of GDP per capita for the south of Italy in 2000-2006, expressed in purchasing power parity, with the weaker countries in the enlarged EU shows that the southern Italian economy is in trouble. It is being challenged on the one side by the new EU members, which are very competitive and enjoy a better cost environment, and on the other by weak countries, which have made better use of the substantial resources provided by EU funding.

If we look at the economy of Puglia and its productivity, it is not surprising that GDP per capita showed a negative trend in 1995-2005, compared to the European average. In fact GDP per inhabitant in Puglia decreased by 1.8% per year between 2000 and 2004 and the increase of 1.7% between 2004 and 2006 was lower than the average rate both for the south and Italy as a whole. As a result of declining productivity, the costs per unit of product are 4.2% higher than in the center-north.

In 2007, the value added of Puglia's agriculture sector decreased in real terms and its industry activities did not change following the growth in 2006. Between 2000 and 2005, the value added from the traditional sectors, from textiles to tanning, showed an average decrease of 4.2% per year, going from 34.2% in 2000 to 29.2% in 2005 (Banca d'Italia, 2008). The basic industry sectors, from metal production to coke ovens and pharmaceuticals, on the other hand, showed an average growth per year of 2.3%, due to the positive trends in the steel sector which enhanced the performance of the whole sector; in terms of value added this rose from 28% in 2000 to 33.2% in 2005. If we analyse the productive structure of the mechanical and traditional sectors we can see that the former, which is mostly made up of active local firms, also includes many Italian and foreign groups, and has a prevalence of medium-sized companies. The traditional sector, on the other hand, is made up of small companies organised in local systems. The profitability of investments made by these enterprises, which was less than 15% in the period 1995-1998, went below 4% in the period 2003-2006, with a consequent decrease in the share of reinvested value added, and an increase of labor cost. In the same period, the profitability of enterprises in the mechanical field rose, the share of reinvested capital increased and labor costs decreased.

Thus, it might seem that, apart from a few isolated cases, companies in the traditional sector are not engaging in the type of structural change that combines a strongly decentralized organization polyarchy, featuring many micro firms, with independent and autonomous decisions making powers, with a hierarchical one, composed by few enterprises, usually of great dimensions, with centralized decisional authority (Arrighetti-Traù, 2007). In truth, Italian capitalism is undergoing a fourth stage (Colli, 2005), characterised by an increase in the size of some enterprises, not necessarily within districts,<sup>2</sup> which is followed by a change in organisation which is akin to a hierarchical system. The development from small enterprise - that is a single legal entity - to a medium one<sup>3</sup> that is part of a group,<sup>4</sup> with different

<sup>2</sup> Half of the medium sized enterprises considered in the 2008 Mediobanca and Union Camere research, specialised in personal, home and light mechanic goods production, are organised in districts.

fixed costs related to the new technologies to which it gains access, seems to have bypassed the southern production system, which is finding it harder than ever to gain and maintain overseas markets. Exports from companies in traditional sectors in Puglia have remained unchanged, and in 2007 the textile and clothing sector remained unchanged but there was a sharp decrease (-9.3%) in leather and leather products (Banca d'Italia, 2008).

Italian footwear districts,<sup>3</sup> including those in the northern part of Bari and Casarano, all recorded reduced exports, in part due to reduced sales to Romania in 2007 resulting from inaccurate statistics after Romania joined the EU, and in part due to the loss of important markets, including France, the USA, the UK and Germany. Also, in Montebelluna, the decrease in the value of exports to Germany was perhaps due to reorganisation of production and distribution in the major company, Geox, which in 2007 increased its sales to Germany by 17.3% (Monitor sui distretti, 2008).

Given that in the south, local manufacturing units are related to small and very small enterprises, it is not possible to identify a leading enterprise in this sector. Therefore, the quantitative analysis of a sector must consider the impact of the dimension of every firm on its rate of growth, to ensure the latter is independent of the former (Gibrat's law); this consideration can lead one to affirm that a process of concentration is developing in that sector. Gibrat's law states that the probability of a change in the dimension of enterprise, given period of time, it is equal for all the enterprises of the sector, independently from their initial dimension. The relationship between growth and business dimension will not be constant, but it will instead decrease, because to achieve the smallest efficient

dimensions, small firms grow more quickly than large ones (Geroski, 1995; Lotti et al., 2003). Besides, the aforementioned relationship can not be linear and discontinuous, because different labor laws apply to small and large firms. In Italy, in fact, firms have to reinstate or indemnify unjustly dismissed workers only if they have more than 15 employees, and therefore firms are unwilling to exceed this threshold (Garibaldi et al., 2004; De Nardis et al., 2003). Although we cannot state absolutely that there is a strict relation between innovation and firm size (Aiello et al., 2005), in the case of small enterprises deep structural change is essential for product innovation, which depends on the level, variety, sources and diffusion of knowledge.<sup>6</sup>

#### 4. The Footwear Sector in the South and in Puglia: The Results of Gibrat's Law

In order to study the evolution of the footwear sector in the context of uncertain and worsening exports, and accounting for revenue, value added and worker costs, we calculated growth indicators for southern enterprises, in Puglia and in Salento (Casarano), using the AIDA database. Our analysis is aimed at verifying whether the results of these indicators conform to Gibrat's law and whether their variability is more or less contained in medium-large sized enterprises compared to smaller firms. We studied the leading enterprises in Casarano, analysing the results from a direct survey and balance-sheets.

<sup>3</sup> According to the Mediobanca-Union Camere report of February 2008, there are 3,984 companies with 50-499 workers and €13–290 million turnover. They are mostly located in the north-east and middle of Italy, although they are expanding slowly to the south, and represent 14% of Italian manufacture production. This percentage increases to 22%, if we also include small suppliers. According to the 2004 and 2005 censuses, there are 210 medium sized companies and 78 large companies.

<sup>4</sup> According to the Mediobanca-Union Camere 2006 report, in 2003 3,700 out of 10,200, what are MI, are controlled by big holdings. Between 1996 and 2005 MI increased their value added. By 42% against 11% for large companies, under Italian control.<sup>5</sup> Ver Zimmerman (1994) no contexto europeu e Vogler e Rotte (2000) para países em vias de desenvolvimento

<sup>5</sup> The footwear districts are in seven regions, including 23 provinces: in the north, Lombardia and Veneto; in the middle, Toscana, Emilia Romagna and Marche; in the south, Campania and Puglia.

<sup>6</sup> Recently, ANCI (Associazione Nazionale Calzaturieri Italiani), promoted a project in which some companies from Puglia are participating, aimed at stimulating innovation and transfer knowledge in the production and distribution processes, and increasing interaction to create a system that would be conducive to improving productive efficiency and competitiveness.

The formula used to calculate the growth indexes in 2000-2004 is:

$$i = \frac{X_t}{X_{t-1}} - 1.$$

The AIDA database includes 384 corporate companies in the footwear sector in the south, 70 of which are in Puglia. Firms where values were not available were removed from the database before calculation of the indexes; negative values are not acceptable for the two time periods considered (values between 0 and 1 are already negative); we also did not include values of 0/0 or X/0 because it makes no mathematical sense. We have samples of 135 companies in the south of Italy for our revenue index, 130 for value added and 131 for workers' cost, of which 28, 26 and 28 companies respectively are in Puglia.

Given that the growth index is significant only if it is equal to or greater than zero, firm growth is negative if  $i$  values for 2004 compared to 2000 are between zero and 1 ( $0 < i < 1$ ), is positive if it is greater than 1 ( $i > 1$ ), and is stable if equal to 1 ( $i = 1$ ).

The analysis of the data in table 1, shows that a few enterprises from the south and from Puglia recorded stable growth. For enterprises in the south, the revenue variable grew faster, while for enterprises in Puglia this was the case for the cost variable. In the south, based on the index calculated for revenues, many enterprises did not grow (74, equal to 54.8% of the total) and 14% of them showed a decrease over the five years of 18%. Nevertheless, a substantial number has grown (51, equal to 37.8% of the total), 10% of which are from Puglia. Fratelli Musto, a family-run company from Campania, where labor costs in 2000 were equal to zero, showed major growth in the following years, reaching an index of 21.6% in 2004. Eudorex and DEMI, both from Campania, reached values respectively of 4.5% and 3.9%. In Barletta in Puglia, Calzaturificio Games Sport grew to

2.2%. Results for the growth index for value added are similar. In this case, as well, many enterprises did not grow at all. This is compared to companies located in Abruzzo, Campania and Puglia, which grew significantly by 43.1%. For example, New Pelli. shows an index equal to 67. Some of the enterprises from Puglia that have shown good growth are located in Bari, including Over Teak which achieved a value of 27. For the labor cost index, 54.2% of enterprises in the south have a value greater than 1; 15% of these are in Puglia. Doc Italian Leather Tannery from Campania, Eudorex. and Mar Pelli, have indexes of 14.11 and 19 respectively while HF 2000 from Bari shows an index of 3.8. The analysis of our data set and of tables 2 and 3 (see below) does not suggest that there is no connection between growth and starting size of an enterprise (calculated as of the year 2000). Only in the small enterprises are the three indexes greater than 1. This suggests that in the footwear sector, the growth rate of enterprises is not independent of size, because small and medium sized firms are growing faster than large ones, confirming the findings in Basile and de Nardis (2004), Becchetti and Trovato (2002), Dunne and Hughes (1994) and Calvo (2006) and rejecting Gibrat's law. This result may depended on the necessity to reach economies of scale and access to internationalisation, but this potential growth is limited by the scarce availability of finance.<sup>7</sup>

The AIDA database includes some enterprises in Salento (8); due to the incompleteness of the data, growth indexes for the most important enterprises in Casarano were calculated using balance-sheet data.

#### **4.1 Evolution and growth of the footwear sector in Casarano**

In many areas in the south in the 1950s footwear production was huge; this also applies to the Casarano district, which is the second largest cluster after the one in the north of Bari. Since then, number of enterprises has dropped to 205 and the number of

<sup>7</sup> We test whether firm size and growth are independent variables with the qui square test. Formulas, that can be used, are:  $DLRev0400 = f(LRev00)$ ,  $DLVA0400 = f(LVA00)$  and  $DLLaborcost0400 = f(LLabor cost 00)$ . We underline that the value of R-square is not particularly high, but it is significant for the small sized firm and for the three growth index considered in the South and for the medium sized firm in Puglia. For the value added growth index the results are respectively 0.2252 in the South and 0.7528 in Puglia; for the revenue growth index the results are respectively 0.3293 in the South and 0.5486 in Puglia, for the labor cost index the results are 0.3884 in the South and 0.3734 in Puglia. In this way, we can confirm the rejection of Gibrat's law. For the large firms it is not possible to test the qui square because the observation's number is not sufficient.

**TABLE 1**  
**Number of enterprises related to the indexes of growth in the South and in Puglia**

Growth indexes	0<i<1		i=1		i>1		Enterprises
	v.a.	%	v.a.	%	v.a.	%	
Revenues 04/Revenues 00 South	74	54.8	10	7.4	51	37.8	135
Revenues 04/Revenues 00 Puglia	11	39.3	3	10.7	14	50	28
VA04/VA00 South	64	49.2	10	7.7	56	43.1	130
VA04/VA00 Puglia	11	42.3	2	7.7	13	50	26
Labor cost 04/Labor cost 00 South	43	32.8	17	13	71	54.2	131
Labor cost 04/Labor cost 00 Puglia	5	17.9	3	10.7	20	71.4	28

**Source:** based on AIDA data

**TABLE 2**  
**Average growth indexes for enterprise size in the south according to Eurostat category**

Enterprises size ( number of workers)	Revenues 04/Revenues 00	VA 04/VA 00	Labor cost 04/Labor cost 00
<50	<b>Source:</b> based on AIDA data	2.0	1.6
50-249	0.9	2.6	1.1
250-999	0.7	0.8	0.7
>1000	n.d.	n.d.	n.d.

**Source:** based on AIDA data

**TABLE 3**  
**Average growth indexes for enterprise size in Puglia according to Eurostat category**

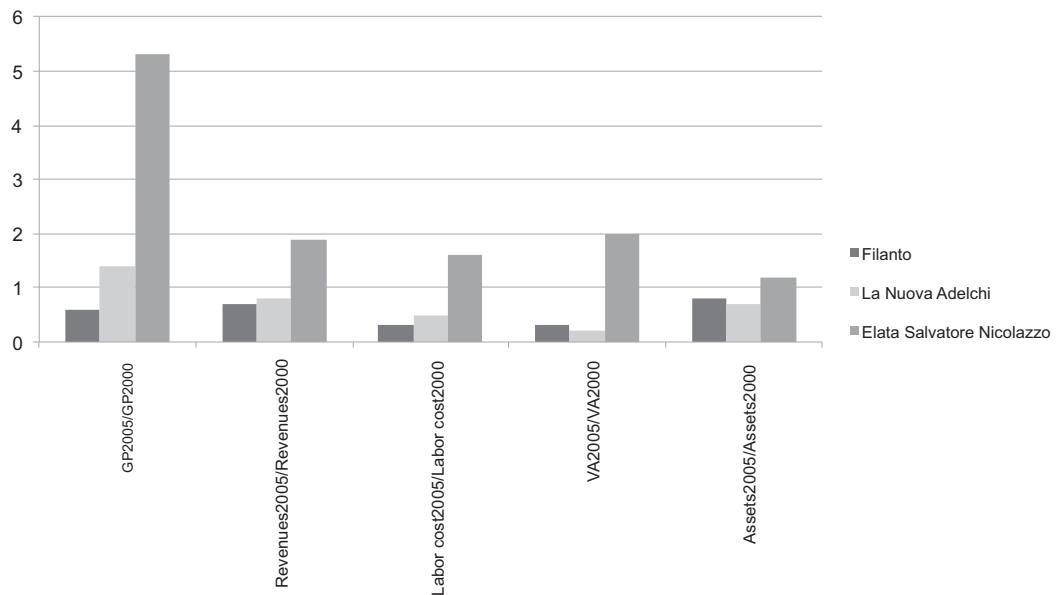
Enterprises size ( number of workers)	Revenues 04/Revenues 00	VA 04/VA 00	Labor cost 04/Labor cost 00
<50	1.0	1.0	1.4
50-249	1.3	5.6	1.2
250-999	0.7	0.8	0.7
>1000	n.d.	n.d.	n.d.

**Source:** based on AIDA data

workers dropped from 20,000 to 6,900 in the 1980s and 1990s. As discussed above, the sector is both undergoing a deep crisis and evolving due to the presence of the most important enterprises including Gruppo Filanto, La Nuova Adelchi and Elata. These are the most important firm in terms of tradition, history, number of workers, value added and they form a hub and spoke cluster with the others small firms. The footwear district of Casarano is specialised in walking shoes, sandals and dance shoes of medium,

medium-high and high quality, and is experiencing a crisis due to loss of cost competitiveness against Chinese production. Unlike some companies – such as De Rocco - which have declared bankruptcy and withdrawn from the sector, others firms are adopting a restructuring and a reorganisation strategies focused on relocating their production processes in order to contain production costs, and pursuing innovation in design, fashion and production processes within their companies.

FIGURE 1  
Growth indexes for Filanto, La Nuova Adelchi and Elata di Salvatore Nicolazzo



Source: Based on 2001 and 2006 balance-sheet data

For the three leading footwear enterprises in Casarano, based on balance sheet data for 2000-2005, we calculated net growth indexes, revenues, labor costs, value added and assets. For all the indexes (Figure 1), Elata di Salvatore Nicolazzo, achieved the highest values, retaining its customer base and finding new markets in Italy, Europe and the USA. This firm employs less 50 workers, thus not completely supporting Gibrat's law.

## 5. Organisation and diffusion of knowledge: survey results

We used survey results to study the diffusion of knowledge and the organization of Gruppo Filanto, Elata di Salvatore Nicolazzo and La Nuova Adelchi, but since some of this information confidential some of the results are described in anonymous form. We used a five-part questionnaire requesting information on:

1. firm and the function of the interviewed person;
2. firm-organization and the nature of its relationship with other firms;
3. innovation capabilities and number of prototypes, CAD or CAM programme use, expenditure in learning and skills, market capabilities and expenditure, web marketing use;
4. knowledge and innovation exchange to verify whether it is formal and/or informal;
5. relationship between manager, customers and suppliers and contacts with other firms, their location and type (suppliers, clients, competitors) for measuring the firm's ability to scan for market knowledge and social network.

We can thus describe the characteristics, organization and diffusion of knowledge for each of the three firms; when necessary, we also recorded balance-sheet information.

Filanto, a company founded in 1948 as an individual firm, became a corporate company in 1985. It adapted to changing market requirements, relocating production to outside companies, conducting marketing activities and importing from south-east Asia. In 2008, it employed 151 people, versus 549 in 2004. As can be seen from the balance-sheets, it has four wholly-owned subsidiaries, Fabrika Kepuceve in Tirana producing footwear, CAI Mendoza in Argentina tanning leather, Filograna SA in Lugano, Switzerland and Filograna in Milan trading in shoes. The enterprise creates prototypes and samples, maintains relationships with local firms that build soles, finish leather, cut, hem and mount shoes or

provide particular services. It has relationships with companies in other countries, such as Albania and Bulgaria. The enterprise invests in market knowledge through attendance at fairs, interaction with agents such as suppliers, clients, industry associations, and trade publications, in order to locate potential markets, keep abreast of customers' tastes and the latest trends in colours and materials. Technical knowledge related to new materials, more efficient production, new machinery, techniques and design is kept updated through close contacts with other footwear companies, suppliers and technicians, who travel widely to visit the various agents. During the design of a prototype presentation solutions are often reached and suggestions incorporated.

La Nuova Adelchi was founded in 1987 and had 142 employees in 2008: in 2000 it had 605. It is investing in product innovation and conducting research. Technical and marketing knowledge diffuses through trade fairs, publications in specialist trade magazines, interaction with agents, suppliers, clients and trade associations. Knowledge exchange through the Internet and email and contacts with institutions are also very important. Diffusion of knowledge by formal and informal contacts with local Italian or foreign enterprises in the sector is less important.

Elata di Salvatore Nicolazzo is a family firm founded in 1923 and has three generations working there. It employed 42 craftsmen in 2008 and has no automated production or computer generated

prototypes. The enterprise invests in quality and uses only leather. Technical knowledge is spread through contacts with agents, clients, associations, institutions and emails.

Only one of the leading enterprises takes advantage of technical know-how acquired from other local, Italian and foreign enterprises with which it has ties, while the second - ranked enterprises exchanges both technical and market knowledge.

Only one of the three firms – the highest performing one - has a fully automated process, with the level of automation is respectively 10% and zero in the others two. The top-ranked enterprise rents out and sells its business machines to third parties, and uses computers to make prototypes; the other two companies buy in their business machines, can make web prototypes and pay attention to new materials, in particular types of leather.

The results of our research and our analysis of balance sheets; show that the three enterprises in Casarano, one of which is a parent company, are independent in terms of operative procedures and competition, but they interact and cooperate informally, thereby acquiring, exchanging and spreading knowledge. Due to their longevity in the market, they have strong competences which have positive effects on their performance and on the territory, especially when they adopt an innovation.

#### *Exchange of technical knowledge and/or market of the three leading footwear- enterprises in Salento*

Firm	Fairs	Specialised magazines	Other enterprises	Suppliers	Clients	Agents	Associations	Internet	Institutions
<b>Firm 1</b>	T: 0	T: 0	T: 5	T: 1	T: 5	T: 2	T: 0	T: 0	T: 0
	M: 5	M: 3	M: 1	M: 4	M: 5	M: 4	M: 3	M: 2	M: 3
<b>Firm 2</b>	T: 5	T: 5	T: 1	T: 5	T: 5	T: 5	T: 5	T: 5	T: 5
	M: 5	M: 5	M: 1	M: 5	M: 5	M: 5	M: 5	M: 5	M: 5
<b>Firm 3</b>	T: 4	T: 3	T: 0	T: 4	T: 0	T: 0	T: 0	T: 0	T: 0
	M: 0	M: 0	M: 0	M: 0	M: 0	M: 5	M: 2	M: 3	M: 1

Technique: T ; Market: M ;

1: not important; 5: very important

## 6. Conclusions

The footwear sector is one of several sectors whose share of the national productive structure has diminished due to the economic crisis of Italy and the international markets crisis, which is affecting competitiveness. Mortality among enterprises is increasing, but for the survivors, incomes, international processes and average sizes are growing thanks to different organisations of ownership and control (Banca d'Italia, 2008). In Puglia, the footwear system in Salento, whose medium - size enterprises are the backbone of the industry, has been systematic and dynamic, in terms of changes to its organisation to recover productivity and competitiveness in foreign markets. The resulting decentralisation of production, based on external manufacture of uppers and production of finished products has reduced exports and increased imports or sales from abroad, of lower value products. At the same time, there is still a local and national presence in the medium-to high - end markets, which require greater investment in product quality and style and technical research and design work. The differing results we obtained in terms of enterprise growth, based on our empirical investigation, are not related to firm size, but rather depend on their abilities innovate, organize and create local and international systems. Regional areas, which have a significant competitive advantage in improving human, social, institutional and economic capital, tend to grow faster than others. In order to achieve greater convergence, it would be necessary to investigate the factors involved in institutional and cultural conditions that influence the individual propensity to innovate. Enterprises endowed with these factors are more motivated to exchange information and knowledge. Enterprises involved in innovation require human and financial capital, information on markets and competition, and workers endowed with particular skills, which should be available in their environment. The way that the interaction between enterprise and the environment works is related to the existence of fast and efficient social and communication networks, whose shortage or absence could be remedied by effective public governance.

The revival of the footwear sector in Puglia depends on acting as a cohesive system, strengthening networks, and creating knowledge as a factor of production, and supporting companies in R&D, which is crucial for competitiveness in domestic and international markets.

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