



Investigaciones Regionales - Journal of Regional Research

ISSN: 1695-7253

ISSN: 2340-2717

investig.regionales@aecr.org

Asociación Española de Ciencia Regional
España

Bettiol, Marco; Burlina, Chiara; Chiarvesio, Maria; Di Maria, Eleonora
From Delocalisation to Backshoring? Evidence from Italian Industrial Districts
Investigaciones Regionales - Journal of Regional Research, no. 39, 2017, pp. 137-154
Asociación Española de Ciencia Regional
España

Available in: <https://www.redalyc.org/articulo.oa?id=28966569007>

- ▶ How to cite
- ▶ Complete issue
- ▶ More information about this article
- ▶ Journal's webpage in redalyc.org

The logo for Redalyc, featuring the word 'redalyc.org' in a stylized font with a red dot above the 'i'.

Scientific Information System Redalyc

Network of Scientific Journals from Latin America and the Caribbean, Spain and
Portugal

Project academic non-profit, developed under the open access initiative

From Delocalisation to Backshoring? Evidence from Italian Industrial Districts

Marco Bettiol*, Chiara Burlina*, Maria Chiarvesio**, Eleonora Di Maria*

ABSTRACT: In recent decades, industrial districts (ID) have experienced intense delocalisation to low-cost countries, with implications for IDs' internal structure. Recent studies, however, highlight the advantages of relocating manufacturing in home countries. This paper investigates ID firms' production-location strategies and backshoring decisions. The results from a survey of 259 firms in eight Italian IDs show that firms that delocalise production do not change their strategies over time and make limited recourse to backshoring. ID production is still important to guarantee product quality and access to specialised know-how.

JEL Classification: L23; F23.

Keywords: delocalisation; backshoring; industrial districts; manufacturing, Italy.

¿De la deslocalización al *backshoring*? Evidencia de los distritos industriales italianos

RESUMEN: En las últimas décadas, los distritos industriales experimentaron una deslocalización intensa hacia países de bajo costo, con implicaciones en la estructura interna del distrito. Estudios recientes destacan las ventajas de volver a localizar la producción en el mercado nacional. Este artículo analiza las estrategias de localización de las empresas del distrito de producción y las decisiones de *backshoring*. El trabajo empírico consiste en un análisis descriptivo de 259 empresas ubicadas en 8 distritos industriales en Italia. Los resultados muestran que las empresas que deslocalizaron la producción no han cambiado sus estrategias con el tiempo, con un limitado recurso al *backshoring*. No obstante, la producción del distrito es todavía importante para garantizar la calidad del producto y el acceso a un *know-how* especializado.

* Department of Economics and Management, University of Padova.

** Department of Economics and Statistics, University of Udine.

Corresponding author: Department of Economics and Management, University of Padova, Via del Santo, 33 – 35123 Padova (Italy), eleonora.dimaria@unipd.it.

Received: 09 march 2017 / *Accepted:* 20 september 2017.

Clasificación JEL: L23; F23.

Palabras clave: deslocalización; *backshoring*; distritos industriales; producción; Italia.

1. Introduction

In the past two decades, economic activities have undergone an increasing process of internationalisation, with growing fragmentation of value chains at the global level and shifting of manufacturing processes from western countries to low-cost countries. Studies on global value chains (Cattaneo, Gereffi, & Staritz, 2010; Dedrick, Kraemer, & Linden, 2009) describe how lead firms (large multinational firms and retailers) from the global North outsource manufacturing activities to small- or large-sized suppliers in the South to benefit from cost advantages and control over the value achieved.

In this context, industrial districts (ID) have seen delocalisation of their activities (Chiarvesio & Di Maria, 2009; Cutrini, 2011; Mazzanti, Montresor, & Pini, 2011). The ID model is widely recognised as an alternative form of economic organisation to the large firm. In the ID model, agglomeration economies and the high level of specialisation of small and medium-sized firms (SME) support the location of manufacturing activities in selected, well-defined geographical areas (Becattini, Bellandi, & De Propriis, 2009). Despite the positive effects of geographical and sociocultural proximity on ID firms' economic and innovation performance (Molina-Morales, 2001), many have delocalised production abroad over the years, with varying consequences for their internal structures (Camuffo & Grandinetti, 2011; Chiarvesio, Di Maria, & Micelli, 2010). Indeed, internationalisation is seen as a significant force driving the evolutionary trends of IDs (Belussi & Hervas-Oliver, 2017; De Marchi & Grandinetti, 2014). On one hand, internationalisation offers opportunities to acquire new knowledge, but on the other, it reduces internal ID cohesion due to replacement of local suppliers with international sourcing and potential losses of local competence and knowledge.

Recent studies on backshoring (Fratocchi *et al.*, 2016) stress the need for co-location of research and development (R&D) and manufacturing and for proximity with customers to manage customisation and increase the quality of interactions. This topic is especially interesting to explore in the context of ID, where local collaboration leads to innovation, but the delocalisation of production can weaken innovation capabilities. Italy has gained international recognition for the form of production linked to ID (Piore & Sabel, 1984). Starting in the early 21st century, though, Italian manufacturing (and ID) firms decided to internationalise due to saturation of the home market and potential cost-savings strategies abroad (Bucuni, Coro, & Micelli, 2014). Italian firms moved their plants, first, to Central and Eastern Europe (e.g., Romania and Bulgaria) and, second, to Far East economies (e.g. China and Taiwan). However, recent research shows that in the aftermath of

the recent economic crisis and amid the increasing economic power of developing countries such as China (resulting in higher salaries and less convenient productive conditions), Italian and European firms are starting backshoring processes to their home countries and nearshoring processes to closer countries (Belussi, 2015; Fratocchi *et al.*, 2014).

Despite a significant debate on backshoring and its opportunities at the international level, studies aimed at measuring its magnitude, particularly in European contexts, are quite scarce (Kinkel, 2014). Moreover, many existing studies are based on qualitative data (case study analysis) and secondary sources (Bailey & De Propriis, 2014; Martinez-Mora & Merino, 2014; Stentoft, Olhager, Heikkilä, & Thoms, 2016). In the context of the debate on the evolutionary trends of IDs, this paper contributes to a more comprehensive understanding of ID firms' internationalisation processes, backshoring initiatives and the reasoning driving those processes. On one hand, ID firms may decide to delocalise for efficiency reasons, while on the other hand, manufacturing processes may return due to several reasons. These backshoring decisions assign great importance to high-quality productive techniques and the recognition of market-based variables (i.e. country-of-origin effect)—factors that traditionally characterise ID production.

In the discussion on the evolutionary processes of IDs, this paper is aimed at examining the relevance of the ID context, first, to the location of manufacturing activities in comparison to foreign sites—in the context of progressive delocalisation that has interests many IDs—and, second, to the backshoring strategies implemented by ID firms. We investigate the main drivers pushing ID firms to internationalise value-chain activities. We pay particular attention to manufacturing activities in relation to firms' competitive strategies and consider the level of firm's embeddedness in the ID system. We further explore the changes in such upstream internationalisation strategies and the factors driving the eventual return to the home country.

The paper is organised as follows. The first section focuses on the theoretical discussion on firms' internationalisation processes, particularly backshoring and the link with internationalisation of IDs. The second section presents the research methodology, and the third section reports the empirical quantitative analysis and results. The discussion and final conclusions are then presented.

2. Theoretical background

2.1. Industrial districts and their evolutionary trends

An ID is defined as a group of firms embedded in a particular area where industrial specialisation and geographical proximity give rise to positive agglomeration externalities, such as knowledge spillover and labour market pooling (Becattini *et al.*, 2009; Marshall, 1920; Porter, 1996). Firms in IDs usually are small and medium-sized enterprises (SME), and by grouping together, they can benefit from the

scale economies that generally characterise large enterprises. Moreover, geographical proximity affects not only firms' division of labour and industrial specialisation but also their social and cultural relations. IDs, therefore, are seen as fertile ground to nourish economies, such the Italian one (Pyke, Becattini, & Sengenberger, 1990), and are recognised as a source of competitive advantages at the international level (Porter, 1990, 1996).

The discussion on the evolutionary ID processes is very broad (Belussi & Heras-Oliver, 2017; Boschma & Fornahl, 2011; Camuffo & Grandinetti, 2011; De Marchi & Grandinetti, 2014). The ID model introduced by Marshall (1920) and further developed by Becattini (1979, 1990) is transformed by several dynamics. One important trend is the rise of cluster-leading firms (Camuffo, 2003) and the consequent increase in the internal heterogeneity of IDs (Paniccia, 1998): firm' strategies matter, and single firms can affect the ID governance shaping their evolution (Tomlinson & Branston, 2017). Scholars describe the transformation of IDs with the emergence of larger (lead) firms within IDs (Lazerson & Lorenzoni, 1999) and the consequent reconfiguration of local supply chains. Some IDs become more vertically integrated as hierarchisation transforms the cohesion of the local system described in the classical Marshallian ID model. Thus, the internal transformation of IDs contributes to the heterogeneity across various IDs (Markusen, 1996).

Technological innovations and the transformation of the competitive landscape can also affect the evolution of IDs. In the life-cycle framework (Belussi & Sedita, 2009; Giuliani, 2005), IDs can differ in their ability to cope with new trajectories in technology paths and the emergence of new technologies that may disrupt established industrial specialisations and economic activities (Wang, Madhok, & Xiao Li, 2014). Accordingly, some scholars exploring the factors affecting the resilience of IDs (Belussi, 2015; Suire & Vicente, 2014) focus on their ability to cope with environmental changes and adapt to external shocks. ID resilience is related to location decision externalities, the structural properties of knowledge networks (i.e. their degree of openness) and the composite technological life cycle (Suire & Vincente, 2014). More resilient IDs can decouple their trajectories from the life cycle of single products and the cycle of related technologies.

These claims are consistent with other studies that emphasise the relevance of the territory, not only industry variables, in supporting innovation in the ID model. Boix and Trullen (2010) empirically test this idea in a longitudinal analysis of Spanish local labour markets and prove that it is the ID model, not necessarily specific industry characteristics, that support innovation at the local level. Following the cluster life-cycle literature, Elola, Valdaliso, López and Aranguren (2012) show how Basque IDs evolve differently despite similar local initial conditions; however, the authors emphasise that internationalisation challenges stemming from global demands affect the maturity stage of all the four IDs under examination.

For IDs, the ability to grow and be resilient is linked to the mechanisms supporting knowledge flows internally and externally with partners. This connection

is widely explored in the IDs literature. According to a knowledge view of internal ID dynamics, they benefit from external linkages by acquiring new technological and market-based knowledge and addressing internal activities (Bathelt, Malmberg, & Maskell, 2004). This exchange can result from firms' deliberately chosen strategies but also institutional support as the role of gatekeepers may sustain ID growth and renewal (Hervas-Oliver & Albors-Garrigos, 2014; Morrison, 2008).

2.2. Internationalisation, delocalisation and backshoring in the ID context

Among the various connections with external knowledge sources (i.e. retail chains, research collaboration etc.), many studies emphasise that through internationalisation processes, ID firms can grasp external knowledge beyond their boundaries. One stream of literature explores the role of multinational enterprises (MNE) in contributing to knowledge acquisition by ID firms. While MNEs may be interested in investing at the ID level to benefit from local externalities (Cantwell & Mudambi, 2011), they can also provide new knowledge that may affect IDs' evolutionary path (Belussi, 2015). Other studies also consider the internationalisation processes of ID firms: export strategies—or more structured, market-oriented ones—can have positive impacts on ID firm performance (Belso-Martínez, 2006; D'Angelo, Majocchi, Zucchella, & Buck, 2013). However, compared to downstream internationalisation, it is specifically the delocalisation of production that affects ID evolutionary trends. ID leading firms invest to expand their value chain at the global level by transforming local sourcing decisions and changing the structure of their IDs (Corò & Grandinetti, 1999). Research from the 2000s stresses the increasing internationalisation of manufacturing activities as delocalisation processes transform local supply-chain structures (Chiarvesio & Di Maria, 2009; Rabellotti, Carabelli, & Hirsch, 2009). Not only firms producing products for final markets but also suppliers internationalise (i.e. Furlan *et al.*, 2007), helping open the local value chain globally.

On one hand, this openness is considered to be positive for IDs' knowledge acquisition, as stated. Delocalisation is part of complex sourcing strategies that also involve local suppliers (Mazzanti *et al.*, 2011). However, on the other hand, other studies suggest a more complicated picture with negative implications for the decline of IDs (Crestanello & Tattara, 2011; Pla-Barber & Puig, 2009). In the Spanish context, internationalisation is analysed, for instance, by Valdaliso, Elola, Aranguren and Lopez (2011), who focus on the information and communications technology (ICT) and electronic cluster in the Basque countries. The authors' qualitative, historical analysis provides evidence that social capital and absorptive capacity (typical aspects of IDs) drive the growth and internationalisation of the ICT cluster, although the authors cannot identify a causal connection between internationalisation and employment growth (Valdaliso *et al.*, 2011). Another study by Hervas and Boix-

Domenech (2012) comparing the Castellon and the Italian Sassuolo tiles districts shows that controlling production activities is especially important to foster innovation at the local level, supporting also firms' absorptive capacity to acquire external knowledge.

Recent studies on the delocalisation strategies of ID firms show the intertwined relationships between ID and non-ID firms (Capasso, Cusmano, and Morrison, 2013) and the link among ID firms' innovation strategies, market positioning and outsourcing strategies. According to Cutrini (2011), the Marche footwear district delocalisation invests in labour-intensive activities (delocalised in China) while retaining high value-added activities in the ID.

The debate on the delocalisation of economic activities has recently been renewed by studies that emphasise the value related to activities embedded at the domestic level or that, more generally, discuss changes in the competitive landscape that force firms to reconsider their delocalisation strategies. Backshoring can carry different connotations (Stentoft *et al.*, 2016). Following Ellram, Tate and Petersen (2013), «reshoring is generally defined as moving manufacturing back to the country of its parent company» (p. 3). Thus, in this paper, reshoring has the same meaning as the definition of backshoring offered by Fratocchi *et al.* (2016): «the geographic relocation of a functional, value creating operation from a location abroad back to the domestic country of the company» (p. 100). We also refer to practices of partial backshoring and nearshoring, in which companies decide to relocate offshored production closer to domestic markets.

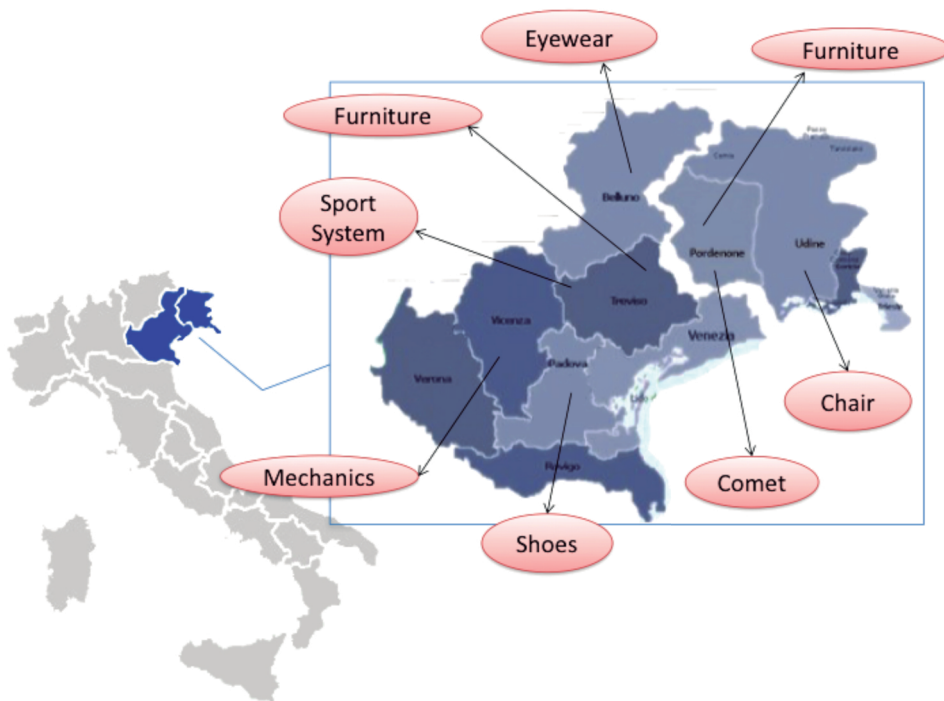
Relocation decisions can be driven by the need to modify previous offshoring strategies that turn out to be unsatisfactory for firms (Bals *et al.*, 2015). As well, backshoring can be driven by the need to co-locate R&D and production (Fratocchi *et al.*, 2014), particularly in production processes that tightly couple design and manufacturing (Pisano and Shih, 2012). Another reason might be imitation strategies, in which firms embedded in a context decide to return to their home countries in imitation of the behaviour of other firms in the same area (Lewin and Volberda, 2011). Moreover, it is important to highlight the role of customers' perceived value as a motivation to backshore. Finally, backshoring can result from policy measures that subsidise production by firms that bring back jobs to home countries (Fratocchi *et al.*, 2014).

So far, to the best of our knowledge, only a few studies (Cutrini, 2011; Martinez-Mora and Merino, 2014) explore the link between delocalisation strategies and backshoring processes within IDs. Accordingly, the goal of this paper is to understand, first, whether ID firms experiencing delocalisation consider or make backshoring decisions and, secondly, whether ID manufacturing location is relevant to firms facing the scenario of the global fragmentation of economic activities and the evolution of IDs.

3. Research design and methodology

In this paper, we investigate the internationalisation path experienced in the past decade (before 2000 up to 2015) by eight IDs two northeast Italian regions (Veneto and Friuli-Venezia Giulia) that specialise in the so-called Made-in-Italy industries (furniture, mechanics and fashion): the Treviso, Pordenone and Manzano (Udine) furniture districts, the mechanics districts in Vicenza and Pordenone (Comet), the Montebelluna sports system district and the shoe wear district in Riviera del Brenta and the eyewear district in Belluno. We choose these two regions as they can be considered highly ID-intensive regions for traditional sectors (De Propris, Menghinello, and Sugden, 2008; Grandinetti, Nassimbeni, and Sartor, 2009; Nassimbeni and Sartor, 2005). The selected IDs have relevant roles in areas of specialisation at the national and the international levels.

Figure 1. Map of the eight industrial districts under investigation



Data collection was conducted in three steps. In the initial stage, data were collected from the InfoCamere-Movimprese (the statistical department of the Chamber of Commerce that collects information about the firms in each Italian region) to measure the stock of operating firms from 2005 to 2014. The aim was to evaluate the processes of potential hierarchisation and the internal transformation of value-chain

activities at the district level. All the data were cleaned following standard procedures, and ID firms were defined according to two criteria: the municipality where the firm's ID was located and the Ateco five-digit classification (Ateco is the Italian version of the European SIC codes) of the manufacturing activities performed in each ID. Focusing on the IDs studied, we observe a persistent, though not deep, downturn in all eight and a simultaneous evolution of ID firms (from small firms to more organised, highly managerial ones).

In the second step of the analysis, we collected data for the IDs from AIDA, Bureau van Dijk's dataset on financial indices, number of employees, and other characteristics of firms. From a total of 1,657 firms, we selected firms that have a turnover higher than 1 Million euros and specialised in products for final markets or intermediated markets (components). Thus, the population considered is represented by 1,002 firms.

The last step in the sample definition was to submit a questionnaire to firms randomly chosen among the sample of 1,002 firms. The structured questionnaire was conducted during April-June 2016 through computer-assisted telephone interviews. The respondents were production managers and entrepreneurs with smaller firms or alternatively those in charge of production management within companies. In the first part of the survey, the interviewers asked about general firm information, while the second part concerned the organisation of the value chain and the production process at the geographical level (district, Italy, and abroad), as well as ownership and supply-chain relationships. The third part of the survey addressed whether firms internationalised part or all of their activities and planned or had undertaken a process of reshoring or backshoring. The respondent firms number 259, or 25.8% of the overall population, equally distributed across the three main industry groups in the eight districts (36% in furniture —Treviso, Pordenone and Manzano; 33% in mechanics— Vicenza and Pordenone; and 31% in fashion —eyewear, sports system and shoes).

4. Results

Table 1 summarises the most important firm characteristics. Most firms are SMEs (77.3% have fewer than 50 employees and an average turnover of 13.2 Ml euros), producing medium-high-quality finished goods for consumers to be maintained over time (36.8% of the respondents state that product quality is the main driver of competitive advantages, while 20.8% primarily pursue product innovation). The production model is mostly make-to-order oriented (69% of the firms). Regarding the internationalisation process, 46.4% of the total turnover derives from foreign sales, mostly in France, Germany, the United States and Austria, even though many companies name emerging markets as their first export markets. Concerning innovation, approximately 52% of the firms have in-house R&D departments, and 83.4% have developed product or process innovation (68.3%) in the past three years. About 37% of firms have in-house marketing departments and invest in branding (47.1%).

Table 1. Sample characteristics

<i>Variables under examination</i>	<i>Observed Characteristics</i>
Main activity	146 firms: finished products for consumers (56.8%).
Average turnover (2015)	13.2 ml Euro (53.6% from Italy and 46.4% from abroad).
Average total employees (2015)	49.6
Main size class (based on number of employees)*	77.3% < 49 employees.
Business group	20.8% of firms (54 firms) are part of a business group. 38.3% of firms (18 firms) are leaders of the groups to which they belong.
Primary driver of competitive advantages	Product quality: 95 (36.8%). Product innovation: 56 (21.6%).
Firms' positioning (price/quality)	1. High: 35 (13.5%). 2. Medium-high: 143 (55.2%). 3. Medium: 66 (25.5%). 4. Medium-low: 12 (4.6%). 5. Low: 3 (1.2%).
Organisation of production	1. Make to order: 178 (68.7%). 2. Assemble to order: 47 (18.1%). 3. Make to stock: 18 (6.9%). 4. Engineer to order: 16 (6.2%).
Internal functions and brand investment	Marketing department: 96 (37.1%). R&D department: 134 (52.7%). Firms with proprietary brands: 122 (47.1%).

Note: % calculated on valid answers. * Classes based on EU classification of firms.

Focusing on the value-chain organisation, our analysis shows that 84.6% of the companies outsource at least some activities in the production process. However, most of the suppliers are local: on average, 58.7% of a firm's supplier portfolio is located in the ID, 18.6% in the ID's region, 13.3% in Italy, and 9.3% abroad. Internationalisation of suppliers is not a recent phenomenon as approximately 41% of the ID firms that have international production relied on global sourcing before 2000. The activities performed abroad are both in addition to local activities (45.2%) and in replacement of local activities (35.5% performed by other suppliers and 16.1% by the company). The preferred locations of foreign suppliers are the European Union (56.5% of firms have foreign suppliers in this area), Eastern Europe (47.5%) and the Far East (40.3%).

Approximately 7% of the firms have productive Foreign Direct Investments (FDIs), mostly established since 2000. FDIs are located in Eastern Europe (50%), the Far East (31.6%), South America (21.1%), the European Union (11.1%) and the United States or Canada (10.5%). Sourcing in Italy, the EU15 and the United States

is justified by competence-seeking and reliability-based strategies, while sourcing in Eastern Europe and the Far East is based on efficiency-seeking strategies.

Based on this preliminary analysis of the internationalisation of district firms, we compare ID firms carrying out offshoring strategies—that is, having global suppliers and/or FDIs—in addition to domestic production (69 firms, 26.6% of the sample) with ID firms focused on only local (and national) location of manufacturing activities (190 firms, 73.4% of the sample). Table 2 highlights the profiles of these two groups.

Table 2. Industrial district internationalisation: profile of district firms' strategies

		<i>Industrial district firms with domestic production</i>		<i>Offshoring industrial district firms</i>		<i>Whole sample</i>	
<i>Year of founding (mean)</i>		<i>1984</i>		<i>1981</i>		<i>1983</i>	
		<i>a.v.</i>	<i>%</i>	<i>a.v.</i>	<i>%</i>	<i>a.v.</i>	<i>%</i>
Turnover*	Less than 5 ml Euros***	134	70.5	32	46.4	166	64.1
	5-10 ml Euros***	29	15.3	6	8.7	35	13.5
	10-50 ml Euros***	26	13.7	23	33.3	49	18.9
	More than 50 ml Euros***	1	0,5	8	11.6	9	3.5
Industry	Furniture*	72	37.9	14	20.3	86	33.2
	Mechanics*	63	33.2	31	44.9	94	36.3
	Fashiom*	55	28.9	24	34.8	79	30.5
Sources of competitive advantages	Quality	72	37.9	23	33.3	95	36.7
	Product innovation	37	19.5	17	24.6	54	20.8
	Efficiency	20	10.5	10	14.5	30	11.6
Organisation of production	Make to order	134	70.5	44	63.8	178	68.7
	Make to stock	12	6.3	6	8.7	18	6.9
	Assemble to order	33	17.4	14	20.3	47	18.1
	Engineer to order	11	5.8	5	7.2	16	6,2
Market positioning	High/medium-high	127	66.9	51	73.9	178	68.7
	Medium	50	26.3	16	23.2	66	25.5
	Medium-low/low	13	6.9	2	2.9	15	5.8
Main market	B2B ¹	83	43.7	29	42.0	112	43.2
	B2C ²	107	56.3	40	58.0	147	56.8
Internal functions	Marketing department**	63	33.2	34	49.3	97	37.5
	Firms with proprietary brands***	80	42.1	43	62.3	123	47.5
	R&D department***	88	46.3	47	68.1	35	52.1

* Classes based on EU classification of firms. *** Sig. = 0.001 ** Sig. = 0.05

Note: a.v.: absolute value; ¹ Business-to-Business; ² Business-to-Consumer

Offshoring ID firms generally are larger than firms with ID (or national) production. This is consistent with evidence related to the higher stocks of internal resources related to marketing and R&D. Regarding industries, more firms specialised in fashion and mechanics than furniture are internationalised. However, we note that approximately 46% of smaller companies extend their production value chains across international borders. It is important to note that firms with domestic and international production have no strategy differences when considering innovation orientation and market positioning. Not only firms specialising in products for final markets but also firms operating in business-to-business markets offshore production. There are also no differences in the age of the two groups of ID firms.

Table 3 explores the outsourcing strategies of ID firms. According to our analysis, ID firms producing at the district or the national level are more vertically integrated than ID firms that offshore manufacturing activities. This result does not seem

Table 3. Outsourcing strategies of industrial district firms

		<i>Industrial district firms with domestic production</i>	<i>Offshoring industrial district firms</i>	<i>Whole sample</i>
Outsourcing strategy (mean)	% of outsourcing on firm's activities***	26.3	45.6	32.4
	N. of suppliers***	19.7	62.6	32.3
	% of outsourcing in total sales***	22.8	35.9	27.0
Suppliers' location (% on total number of suppliers) (mean)	Industrial district***	68.6	35.9	58.7
	Region	20.1	15.1	18.6
	Italy***	11.2	18.0	13.3
	Abroad	—	31.0	9.3
Relevant factors driving local (industrial district/ Italy) production (in-house and/or outsourced) (1 = low, 5 = high)	Specific competencies and knowledge	4.19	4.24	4.20
	Quality of manufacturing	4.40	4.26	4.36
	Control of innovation	3.93	3.79	3.89
	Cost reduction	3.67	3.48	3.62
Selection criteria of district suppliers (1 = low, 5 = high)	Costs	3.75	3.90	3.80
	Competencies	4.42	4.42	4.42
	Reliability	4.56	4.59	4.57
	Proximity***	4.17	3.64	4.02

*** Sig. = 0.001 ** Sig. = 0.05

to be influenced by firm size as smaller firms (less than 5 million euros) with global sourcing also outsource more frequently than local firms (45.6% vs. 27.4%). Consistent with this evidence, ID firms with domestic production have a more limited number of suppliers and a lower impact of the value outsourced on firm's total sale.

ID firms producing onshore primarily have suppliers located within the ID system (68.6%), while about 36% of the suppliers serving firms with offshoring strategies are located at the ID level. Despite this difference, the ID firms demonstrate that IDs can offer important competences. We asked the company representatives to rank on a 5-point Likert scale (1 = low, 5 = high) the importance of the factors driving the location of production activities (both those performed in-house and those outsourced) in IDs and in Italy. Both groups of firms highlight that at the domestic level—mainly in the ID—they can find specific competences and knowledge and quality manufacturing. It is also important for firms to control innovation processes (relying on co-location of innovation and production) and, finally, to make gains in efficiency.

Considering the criteria for supplier selection at the district (or national) level, we investigate whether factors such as specialised knowledge competencies, manufacturing quality, cost reduction and control over innovation are relevant when firms decide to pick local suppliers (if the companies have any district suppliers). As we can see, there are no differences in the suppliers' competencies, and the quality of their manufacturing processes ranks first for both groups of firms considered. The only difference concerns proximity, which is more relevant for ID firms producing locally than offshoring firms.

The configuration of international value-chain activities related to production seems to be quite stable as approximately 75% of the companies have not changed their international supply-chain management strategies (in contrast, more than 15% have increased the sourcing countries or externalised value-chain activities). In this context, the backshoring strategy appears to have marginal importance.

As shown in Table 4, when considering backshoring from emerging markets (given that 50 companies have production relationships with emerging markets), 13 firms (26.0%) have evaluated the possibility to backshore production to Italy, and 4 closer to Italy (8.0%), for instance, to Croatia and elsewhere in Eastern Europe. However, only 5 have actually done so. One firm implemented backshoring practices in 2000, and the other four did so more recently. Backshoring choices involve both finished products and other value-chain activities. Firms that evaluate (or carried out) backshoring practices invest abroad mostly to develop activities in substitution for local ones (10 companies). Moreover, 13 of these 17 companies implemented global sourcing before the 2008 economic crisis.

On one hand, these results are consistent with the fact that at the moment, companies do not perceive many problems in the countries where they operate (typical issues include low competencies, poor infrastructure and problems with local institutions and are rated lower than the mean of 3 on the 1-5 scale). On the other hand, among the 17 companies, the most important reason to backshore production is market driven based on the need to exploit the country-of-origin effect (Made in Italy).

Table 4. Backshoring strategies of firms offshoring to emerging economies

Backshoring practices	Closer to Italy: 4 firms (8.0%) In Italy: 13 firms (26.0%) Number of firms considered: 33 firms (65.0%)
Main motivation of backshoring (1 = low relevance, 5 = high relevance) (mean)	Fully made-in-Italy production: 4.00 Customer service: 3.65 Co-location of R&D and manufacturing: 3.35
Backshoring actions	Already in practice: 5 firms Planning to do it: 12 firms
Year of global sourcing and/or FDI (firms with backshoring practices)	Before 2000: 6 firms 2000-2007: 7 firms 2008-2014: 4 firms
Offshoring effects (global sourcing and firms with backshoring practices)	Substitution of local activities (in-house/outsourced): 10 firms In addition to local activities: 6 firms Country-specific activity: 1 firm
Year of backshoring	2000: 1 firm 2012: 2 firms 2013: 2 firms
Backshoring activities' concern	Finished products: 2 firms Semi-finished products: 1 firm Components: 1 firm Other activities: 1 firm

5. Discussion and conclusions

The empirical results lead to three main considerations. The first is related to the importance of the geography of manufacturing. ID location still matters to manufacturing activities. The manufacturing competences and skills available in the ID play an important role in the overall product quality. ID firms do delocalise but do so primarily to complement local production. Despite the higher level of outsourcing among internationalised ID firms—both in intensity and the number of suppliers involved—when these firms must choose ID suppliers, they apply the same two criteria as ID firms that invest in domestic sourcing: suppliers' competence and reliability. Moreover, ID firms producing domestically and ID firms delocalising do not have different drivers of production location at the ID (or national) level. This dynamic highlights the depth of the embeddedness of manufacturing processes within IDs' boundaries, demonstrating the relevant link with the local production system (De Propriis *et al.*, 2008; Molina-Morales, 2001). This result is of interest for policy makers in driving ad-hoc incentives for firms in IDs, as discussed in Spanish IDs by Aragon, Iturrioz, Olarte, Aranguren and Larrea (2009)2008.

The second consideration is the relative stability of the internationalisation of production in IDs. As the survey results show, the international location of manufac-

turing activities has not increased dramatically even since the 2008 economic crisis. To the contrary, the majority of international activities were carried out around 2000, at the very beginning of globalisation, with China's entry into the World Trade Organization and the introduction of the euro. Our research highlights that ID firms delocalised early in the globalisation trend, contrary to many international studies that stress the increased offshoring and global sourcing by large MNEs from advanced nations to low-cost countries and the impacts on manufacturing employment across countries (United Nations Conference on Trade and Development, 2013). FDI is a later phenomenon, mostly carried out from 2000 to 2007. After 15 years of intense globalisation of economic processes, ID firms have learnt how to mix and match the advantages related to the localisation of production activities. In other words, firms are more aware of what should be done locally and globally. This result is especially interesting considering that mostly SMEs are involved in these processes.

The third consideration is the magnitude of backshoring processes. Although some firms have decided or are evaluating relocating some internationalised production stages of their value chains, backshoring is still a limited phenomenon. What has been outsourced abroad does not come back easily. A possible explanation is that Italian ID firms have globalised their production chains less than U.S. corporations, reducing the probability of backshoring. Another possible explanation is that due to the complementarity of local and global production, ID firms seek to get the most out of this combination and do not have to review their choices. This seems consistent with the primary motive for backshoring: strong customer demand for made-in-Italy production. In an analysis of Spanish footwear firms mostly in the Alicante province, Martínez-Mora and Merino (2014) show that most Spanish firms reshore production to satisfy market demand for quality product and customer services; only by producing domestically can Spanish firms meet market demand and structure manufacturing processes accordingly. Thus, we can observe that the main driver of backshoring in both contexts is more related to market factors than cost effects.

This analysis enriches the theoretical debate on the internationalisation processes of ID. This original study also contributes to the literature on the impact of internationalisation on IDs and how IDs handle globalisation. The results confirm the internationalisation strategies carried out by ID firms. The analysis suggests that internationalised ID firms and onshore-producing ID firms have similar strategic profiles in market positioning and sources of competitive advantages. This outcome is consistent with earlier research on supplier selection and governance of global value chains by ID firms (Chiarvesio, Di Maria, and Micelli, 2013) that indicates a more complex relationship between the drivers of ID firms' competitiveness and supply-chain management strategies. However, other studies on the internationalisation of ID firms suggest a different scenario in which innovation-oriented firms prefer local suppliers while sourcing from emerging countries in the case of efficiency-seeking strategies (Capasso *et al.*, 2013). Additional research on this point is needed. Moreover, the survey results support the concept of the ID as a *manufacturing* system of SMEs, which goes beyond the view of a local system that reduces the manufacturing dimension of IDs in favour of other intangible activities, such as R&D and marketing.

In addition, the debate on backshoring puts under scrutiny the established production-location choices made out by MNEs but also highlights the dispute about the real value hidden in manufacturing. In this respect, our analysis of such issues through the lens of the ID model shows that backshoring is not an option for SMEs that have already implemented internationalisation strategies and is related to market-driven factors in the limited number of cases observed. At the same time, the value of manufacturing is linked to know-how and specialised competences available at the ID level where most manufacturing activities continue to be located. Surprisingly, the sample firms do not mention innovation capabilities as a major factor affecting IDs' supplier selection. From this perspective, our study provides further knowledge on the determinants of backshoring and on the factors that ultimately affect decisions concerning keeping production processes abroad.

The main limitation of this research is the lack of a connection between ID firms' internationalisation strategies and performance. Future research should consider suppliers' perspective to more thoroughly evaluate the determinants of the location of manufacturing activities and how those processes are linked to innovation issues. Furthermore, researchers could also compare ID and non-ID firms to evaluate the impact of the ID context on manufacturing location choices.

6. References

- Aragón, C., Iturrioz, C., Olarte, F. J., Aranguren, M. J., and Larrea, M. (2009): *A new step in cluster policy evaluation in the Basque country. (Un nuevo paso en la evaluación de la política clúster en el país vasco)*, retrieved from <http://econpapers.repec.org/RePEc:ivc:wpaper:200901>.
- Bailey, D., and De Propris, L. (2014): «Manufacturing reshoring and its limits: The UK automotive case», *Cambridge Journal of Regions, Economy and Society*, 7(3), 379-395, <https://doi.org/10.1093/cjres/rstu019>.
- Bals, L., Daum, A., and Tate, W. (2015): «From Offshoring to Rightshoring: Focus on the Backshoring Phenomenon», *Academy of International Business Insights*, 15(4), 3-8.
- Bathelt, H., Malmberg, A., and Maskell, P. (2004): «Clusters and knowledge: Local buzz, global pipelines and the process of knowledge creation», *Progress in Human Geography*, 28(1), 31-56, <https://doi.org/10.1191/0309132504ph469oa>.
- Becattini, G. (1979): «Dal settore industriale al distretto industriale: Alcune considerazioni sull'unità di Indagine in economia industriale», *Rivista Di Economia E Politica Industriale*, 1, 1-8.
- (1990): «The Marshallian industrial district as a socio-economic notion», in Pyke, F. S., Becattini, G., and Sengenberger, W. (eds.), *Industrial districts and local economic regeneration* (pp. 13-31). Geneva, Sweden, International Institute for Labour Studies.
- Becattini, G., Bellandi, M., and De Propris, L. (2009): *A handbook of industrial districts*, Cheltenham, UK, Edward Elgar.
- Belso-Martínez, J. A. (2006): «Why are some Spanish manufacturing firms internationalizing rapidly? The role of business and institutional international networks», *Entrepreneurship & Regional Development*, 18(3), 207-226, <https://doi.org/10.1080/08985620600565409>.

- Belussi, F. (2015): «The international resilience of Italian industrial districts/clusters (ID/C) between knowledge re-shoring and manufacturing off (near)-shoring», *Investigaciones Regionales-Journal of Regional Research*, 32, 89-113.
- Belussi, F., and Hervás-Oliver, J.-L. (2017): *Unfolding cluster evolution*, Oxford and New York, Routledge.
- Belussi, F., and Sedita, S. R. (2009): «Life cycle vs. multiple path dependency in industrial districts», *European Planning Studies*, 17(4), 505-528, <https://doi.org/10.1080/09654310802682065>.
- Boix, R., and Trullén, J. (2010): «Industrial districts, innovation and I-district effect: Territory or industrial specialization?», *European Planning Studies*, 18(10), 1707-1729, <https://doi.org/10.1080/09654313.2010.504351>.
- Boschma, R., and Fornahl, D. (2011): «Cluster evolution and a roadmap for future research», *Regional Studies*, 45(10), 1295-1298, <https://doi.org/10.1080/00343404.2011.633253>.
- Buciuni, G., Coro, G., and Micelli, S. (2014): «Rethinking the role of manufacturing in global value chains: An international comparative study in the furniture industry», *Industrial and Corporate Change*, 23(4), 967-996, <https://doi.org/10.1093/icc/dtt048>.
- Camuffo, A. (2003): «Transforming industrial districts: Large firms and small business networks in the Italian eyewear industry», *Industry & Innovation*, 10(4), 377-401, <https://doi.org/10.1080/1366271032000163630>.
- Camuffo, A., and Grandinetti, R. (2011): «Italian industrial districts as cognitive systems: Are they still reproducible?», *Entrepreneurship & Regional Development*, 23(9-10), 815-852, <https://doi.org/10.1080/08985626.2011.577815>.
- Cantwell, J. A., and Mudambi, R. (2011): «Physical attraction and the geography of knowledge sourcing in multinational enterprises», *Global Strategy Journal*, 1(3-4), 206-232, <https://doi.org/10.1002/gsj.24>.
- Capasso, M., Cusmano, L., and Morrison, A. (2013): «The determinants of outsourcing and offshoring strategies in industrial districts: Evidence from Italy», *Regional Studies*, 47(4), 465-479, <https://doi.org/10.1080/00343404.2011.571668>.
- Cattaneo, O., Gereffi, G., and Staritz, C. (eds.) (2010): *Global value chains in a postcrisis world*, Washington, D.C., World Bank, <https://doi.org/10.1596/978-0-8213-8499-2>.
- Chiarvesio, M., and Di Maria, E. (2009): «Internationalization of supply networks inside and outside clusters», *International Journal of Operations & Production Management*, 29(11), 1186-1207, <https://doi.org/http://dx.doi.org/10.1108/01443570911000186>.
- Chiarvesio, M., Di Maria, E., and Micelli, S. (2010): «Global value chains and open networks: The case of Italian industrial districts», *European Planning Studies*, 18(3), 333-350, <http://dx.doi.org/10.1080/09654310903497637>.
- (2013): «Sourcing from northern and southern countries: The global value chain approach applied to Italian SMEs», *Transition Studies Review*, 20(3), 389-404, <https://doi.org/10.1007/s11300-013-0287-1>.
- Corò, G., and Grandinetti, R. (1999): «Strategie di delocalizzazione e processi evolutivi nei distretti industriali italiani», *L'industria*, 4, 897-924, <https://doi.org/10.1430/2264>.
- Crestanello, P., and Tattara, G. (2011): «Industrial clusters and the governance of the global value chain: The Romania-Veneto network in footwear and clothing», *Regional Studies*, 45(2), 187-203, <https://doi.org/10.1080/00343401003596299>.
- Cutrini, E. (2011): «Moving eastwards while remaining embedded: The case of the Marche footwear district, Italy», *European Planning Studies*, 19(6), 991-1019, <https://doi.org/10.1080/09654313.2011.571062>.
- D'Angelo, A., Majocchi, A., Zucchella, A., and Buck, T. (2013): «Geographical pathways for SME internationalization: Insights from an Italian sample», *International Marketing Review*, 30(2), 80-105,2

- De Marchi, V., and Grandinetti, R. (2014): «Industrial districts and the collapse of the Marshallian model: Looking at the Italian experience», *Competition and Change*, 18(1), 70-87, <https://doi.org/10.1179/1024529413Z.00000000049>.
- De Propris, L., Menghinello, S., and Sugden, R. (2008): «The internationalisation of production systems: Embeddedness, openness and governance», *Entrepreneurship & Regional Development*, 20(6), 493-515, <https://doi.org/10.1080/08985620802462074>.
- Dedrick, J., Kraemer, K. L., and Linden, G. (2009): «Who profits from innovation in global value chains?: A study of the iPod and notebook PCs», *Industrial and Corporate Change*, 19(1), 81-116, <https://doi.org/10.1093/icc/dtp032>.
- Ellram, L. M., Tate, W. L., and Petersen, K. J. (2013): «Offshoring and reshoring: An update on the manufacturing location decision», *Journal of Supply Chain Management*, 49(2), 14-22, <https://doi.org/10.1111/jscm.12019>.
- Elola, A., Valdaliso, J. M., López, S. M., and Aranguren, M. J. (2012): «Cluster life cycles, path dependency and regional economic development: Insights from a meta-study on Basque clusters», *European Planning Studies*, 20(2), 257-279, <https://doi.org/10.1080/09654313.2012.650902>.
- Fratocchi, L., Ancarani, A., Barbieri, P., Di Mauro, C., Nassimbeni, G., Sartor, M., Zanoni, A. (2016): «Motivations of manufacturing reshoring: An interpretative framework», *International Journal of Physical Distribution & Logistics Management*, 46(2), 98-127, <https://doi.org/10.1108/IJPDLM-06-2014-0131>.
- Fratocchi, L., Di Mauro, C., Barbieri, P., Nassimbeni, G., and Zanoni, A. (2014): «When manufacturing moves back: Concepts and questions», *Journal of Purchasing and Supply Management*, 20(1), 54-59, <https://doi.org/10.1016/j.pursup.2014.01.004>.
- Furlan, A., Grandinetti, R., and Camuffo, A. (2007): «How do subcontractors evolve?», *International Journal of Operations & Production Management*, 27(1), 69-89, <https://doi.org/10.1108/01443570710714547>.
- Giuliani, E. (2005): «Cluster absorptive capacity», *European Urban and Regional Studies*, 12(3), 269-288, <https://doi.org/10.1177/0969776405056593>.
- Grandinetti, R., Nassimbeni, G., and Sartor, M. (2009): «Foreign direct investments in manufacturing by district firms: Evidence from the Italian chair district», *Production Planning & Control*, 20(5), 403-419, <https://doi.org/10.1080/09537280902897769>.
- Hervas-Oliver, J.-L., and Albers-Garrigos, J. (2014): «Are technology gatekeepers renewing clusters? Understanding gatekeepers and their dynamics across cluster life cycles», *Entrepreneurship & Regional Development*, 26(5-6), 431-452, <https://doi.org/10.1080/08985626.2014.933489>.
- Hervas-Oliver, J.-L., and 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, <http://doi.org/10.1080/09654313.2013.733853>.
- Kinkel, S. (2014): «Future and impact of backshoring —some conclusions from 15 years of research on German practices», *Journal of Purchasing and Supply Management*, 20(1), 63-65, <https://doi.org/10.1016/j.pursup.2014.01.005>.
- Lazerson, M., and Lorenzoni, G. (1999): «The firms that feed industrial districts: A return to the Italian source», *Industrial and Corporate Change*, 8(2), 235-266, <https://doi.org/10.1093/icc/8.2.235>.
- Lewin, A. Y., and Volberda, H. W. (2011): «Co-evolution of global sourcing: The need to understand the underlying mechanisms of firm-decisions to offshore», *International Business Review*, 20(3), 241-251, <https://doi.org/10.1016/j.ibusrev.2011.02.008>.
- Markusen, A. (1996): «Sticky places in slippery space: A typology of industrial districts», *Economic Geography*, 72(3), 293, <https://doi.org/10.2307/144402>.
- Marshall, A. (1920): *Principles of economics*, London, UK, McMillan.
- Martinez-Mora, C., and Merino, F. (2014): «Offshoring in the Spanish footwear industry: A return journey?», *Journal of Purchasing and Supply Management*, 20(4), 225-237, <https://doi.org/10.1016/j.pursup.2014.07.001>.

- Mazzanti, M., Montresor, S., and Pini, P. (2011): «Outsourcing, delocalization and firm organization: Transaction costs versus industrial relations in a local production system of Emilia Romagna», *Entrepreneurship & Regional Development*, 23(7-8), 419-447, <https://doi.org/10.1080/08985620903233986>.
- Molina-Morales, F. X. (2001): «European industrial districts: Influence of geographic concentration on performance of the firm», *Journal of International Management*, 7(4), 277-294, [https://doi.org/10.1016/S1075-4253\(01\)00048-5](https://doi.org/10.1016/S1075-4253(01)00048-5).
- Morrison, A. (2008): «Gatekeepers of knowledge within industrial districts: Who they are, how they interact», *Regional Studies*, 42(6), 817-835, <https://doi.org/10.1080/00343400701654178>.
- Nassimbeni, G., and Sartor, M. (2005): «The internationalization of local manufacturing systems: Evidence from the Italian chair district», *Production Planning and Control*, 16(5), 470-478, <https://doi.org/10.1080/09537280500110912>.
- Paniccia, I. (1998): «One, a hundred, thousands of industrial districts. Organizational variety in local networks of small and medium-sized enterprises», *Organization Studies*, 19(4), 667-699, <https://doi.org/10.1177/017084069801900406>.
- Piore, M. J., and Sabel, C. F. (1984): *The second industrial divide: Possibilities for prosperity*, New York, Basic Books.
- Pisano, G., and Shih, W. C. (2012): «Does America really need manufacturing?», *Harvard Business Review*, 90(3), 94-102. Retrieved from <https://hbr.org/2012/03/does-america-really-need-manufacturing>.
- Pla-Barber, J., and Puig, F. (2009): «Is the influence of the industrial district on international activities being eroded by globalization? Evidence from a traditional manufacturing industry», *International Business Review*, 18(5), 435-445, <https://doi.org/10.1016/j.ibusrev.2009.04.003>.
- Porter, M. E. (1990): *The competitive advantage of nations*, New York, Free Press.
- (1996): «Competitive advantage, agglomeration economies, and regional policy», *International Regional Science Review*, 1-2(19), 85-94, <https://doi.org/10.1177/016001769601900208>.
- Pyke, F. S., Becattini, G., and Sengenberger, W. (1990): *Industrial districts and inter-firm cooperation in Italy*, Geneva, Sweden, International Institute for Labour Studies.
- Rabellotti, R., Carabelli, A., and Hirsch, G. (2009): «Italian industrial districts on the move: Where are they going?», *European Planning Studies*, 17(1), 19-41, <https://doi.org/10.1080/09654310802513914>.
- Stentoft, J., Olhager, J., Heikkilä, J., and Thoms, L. (2016): «Manufacturing backshoring: A systematic literature review», *Operations Management Research*, 9(3-4), 53-61, <https://doi.org/10.1007/s12063-016-0111-2>.
- Suire, R., and Vicente, J. (2014): «Clusters for life or life cycles of clusters: In search of the critical factors of clusters' resilience», *Entrepreneurship & Regional Development*, 26(1-2), 142-164, <https://doi.org/10.1080/08985626.2013.877985>.
- Tomlinson, P. R., and Branston, J. R. (2017): «Firms, governance and development in industrial districts», *Regional Studies*, 1-13, <https://doi.org/10.1080/00343404.2017.1324199>.
- United Nations Conference on Trade and Development (2013): *World investment report 2013: Global value chains: investment and trade for development*, retrieved from http://unctad.org/en/PublicationsLibrary/wir2013_en.pdf.
- Valdaliso, J., Elola, A., Aranguren, M., and Lopez, S. (2011): «Social capital, internationalization and absorptive capacity: The electronics and ICT cluster of the Basque country», *Entrepreneurship & Regional Development*, 23(9-10), 707-733, <https://doi.org/10.1080/08985626.2010.505268>.
- Wang, L., Madhok, A., and Xiao Li, S. (2014): «Agglomeration and clustering over the industry life cycle: Toward a dynamic model of geographic concentration», *Strategic Management Journal*, 35(7), 995-1012, <https://doi.org/10.1002/smj.2141>.