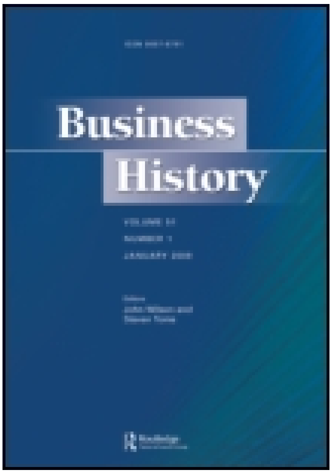

Business History
Publication details, including instructions for authors and subscription information:
http://www.tandfonline.com/loi/fbsh20

Trademarks, product differentiation and competitiveness in the Catalan knitwear districts during the twentieth century

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Published online: 10 Feb 2012.

Business History
Vol. 54, No. 2, April 2012, 179–200

Routledge
Taylor & Francis Group

Trademarks, product differentiation and competitiveness in the Catalan knitwear districts during the twentieth century

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Using the number of trademarks registered as an indicator, this article explores the functioning of the economies of product differentiation that characterise industrial districts. In order to assess the role of districts in the creation of trademarks, the analysis focuses on knitwear production, a highly competitive industry and a pioneer in brand creation in Spain, and examines the development of the country's two main knitwear districts during the twentieth century. The article presents empirical evidence from trademark and business records to show that more trademarks were created in these two districts than in other areas. The imitation and rivalry characteristic of industrial districts favoured the prolifera-tion of trademarks and encouraged firms to diversify their products through the creation of new brands. It also suggests that the success of the brands was uneven and depended on the industrial structure in each district and the kind of product specialisation. In conclusion, not only were the industrial districts an important factor in brand creation, but brand consolidation was decisive in raising levels of competitiveness in knitwear districts in Spain.

Keywords: trademarks; brand; industrial district; competitiveness; product differentiation; external economies; textile; knitwear industry; Catalonia (Spain)

Introduction

Spain's transition from a manufacturing-based economy to one based on large-scale retailing took place against a background of the progressive liberalisation of international trade. The success of Spain's large-scale textile distribution at the start of the twenty-first century is due to a great extent to the organisational capabilities built up during the preceding period in the textile and garment industry (Chandler, 1992, pp. 83–84). The shining example is Inditex, which, according to data for 2008 (Deloitte, 2010, p. 26), is the leading multinational fashion retailer in Europe and the fifth largest worldwide, and in Mango, Custo Barcelona and Desigual, Spain has three more highly successful fashion retail firms.

Historically, the area of the clothes production sector which has been most closely linked to large-scale textile retailing has been the knitwear industry. Ever since its beginnings this end product industry has designed and applied innovative

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ISSN 0007-6791 print/ISSN 1743-7938 online

http://dx.doi.org/10.1080/00076791.2011.631115
http://www.tandfonline.com

commercialisation strategies to offer a wide range of novelties and to cater for consumer tastes. And during the twentieth century the Spanish knitwear production sector possessed an important competitive advantage: it was able to develop its organisational capabilities inside industrial districts, geographical concentrations of sectorally specialised enterprises. This turned out to be a key factor in its competitiveness.

Industrial district are economic and supra-economic (i.e., social, cultural and institutional) entities that create dynamics of their own. The spatial concentration of specialised production generates economies that are external to the company and internal to the district (Bagella & Becchetti, 2000; Becattini, 1987; Becattini, Bellandi, & De Propis, 2009, p. xvxxxv; Marshall, 1920; Porter, 1991; Wilson & Popp, 2003; Zeitlin, 2008). The end result is a greater competitive capability for export among the companies in the district (Becchetti & Rossi, 2000; Costa & Viladecans, 2002).

The dynamic of the industrial district creates innovative environments that foster diversification, thanks to the competition and cooperation between its agents, and obliges firms to differentiate and identify their products vis-à-vis those of their rivals. The production density of the district, which combines the horizontal, vertical and cross-sectional competition of the companies working in a specialised area, favours the exchange of information, inputs and a complex series of relations that benefit from the complementarities in the processes of product diversification. For its part, cooperation within the district (the other complementary component) occurs between the institutions that form part of it; it can also trigger the development of a distinct dynamic (Dei Ottati, 1994). Business differentiation offers multiple possibilities – imitation, improvement and innovation in procedures and products – which in the industrial district mainly take the form of incremental product innovations (Bellandi, 1996; Brusco, 1975; Lazzaretti, 2009; Piore, 2009; Robertson, Jacobson, & Langlois, 2009; Russo, 1989).

The main contribution of this article is its analysis of the functioning of the economies of differentiation among firms located in industrial districts, using the number of trademarks registered as our indicator. In commercial terms, the trademark allows firms to differentiate a specific product and to establish the article among consumers, although there were also other reasons underlying the defensive commercial rivalry. If the reputation of the trademark is maintained, this helps to build customer loyalty. So trademarks are an intangible asset for firms; they are strongly associated with innovative practices (Galletto, 2008; Mendonça, Santos Pereira, & Godinho, 2004) and do a great deal to promote competitiveness both in individual companies (Da Silva & Duguid, 2010; Wilkins, 1992) and industrial districts (Saiz & Fernandez, 2009).

So the hypothesis is that firms based in industrial districts will register more trademarks, because the economies of differentiation in these contexts have a greater impact than in other business locations. To test this hypothesis the article analyses Spain's two largest knitwear districts, in terms of occupation and added value: the Maresme and Igualada, both located in the province of Barcelona. Since the start of the twentieth century the Maresme (Mataró, Calella and Canet de Mar) has been Spain's main knitwear producing district. For its part, the Igualada district grew rapidly during the second half of the twentieth century and by 1971 was home to the second largest concentration of Spanish knitwear firms. Many of its firms continued in business during the 1990s, and so the district can be considered a success.

The indicators used for the analysis were the trademarks registered for knitted goods. In this paper, the term 'trademark' is used to mean that the brand name is associated with identifiable values that are differentiated from those of the competition, rather than as a synonym of the name of the company or type of products made by this company (Mercer, 2010). The information on trademark registration is taken from the trademark databases for the 1865–1905 period and the annual thematic indices of the registrations between 1910 and 1935, held at the Spanish Office of Patents and Trademarks. Two censuses of manufacturing brands in the Spanish knitwear industry in 1971 and 1996 were also used,[1] the registration of each trademark being checked with the brand search engine of the Spanish Office of Patents and Trademarks (http://www.oepm.es), from which a registration number was obtained. Later, using the same organisation's Sitadex database (http://sitadex.oepm.es), the date of each trademark was recorded. Other qualitative information on the behaviour of the business structure and how the brands work was also used.

The rest of the paper is organised as follows. It begins with an introductory section on the process of liberalisation of the knitwear sector in Spain between 1961 and 2004. Then, in order to test the hypothesis, the focus shifts to the process of creating brands in industrial districts and to the survival of these brands. The results are presented in the last section.

The competitive advantage of the knitwear sector

The knitwear industry is characterised by a high level of technical specialisation,[2] with machinery that produces end articles cheaply and quickly. Its elasticity, adaptability and comfort offer knitwear countless applications in fashion and the clothing industry and in many other industrial and technical settings. Based as it is on the use of textiles, knitwear production is a phase industry, the most common manufacturing process spans the inflow of yarns to the outflow of readymade garments (knitted outerwear, knitted underwear and hosiery) for commercialisation.

In 1962 the knitwear industry in Spain produced 6,302,000 kg of woven materials (65.8% cotton, 16.6% wool and 17.6% manmade and synthetic fibres). The industry comprised 812 companies which employed 34,250 workers (of whom 63.5% were women) and 5960 entrepreneurs or managers. Its production targeted almost exclusively the domestic market, and only 3% was exported (Secrétariat International des Industries de la Maille, 1962). Indeed, the Spanish knitwear industry was late in joining the European periphery as a supplier of labour-intensive consumer goods for the European industrial centre. When it did so, it offered highly competitive labour costs: in 1979 the cost per hour produced in Spain was 35% lower than in Italy (Agrupación Española de Fabricantes de Géneros de Punto, 1979, p. 43).

Among the key productive factors that made the Catalan knitwear industry competitive before Spain's entry to the EEC was the excellent value for money of the articles produced, as a result of the lower labour costs just mentioned and the high level of technical competence, as witnessed by the strong presence of Catalan knitwear technology abroad. Other factors that heightened the region's competitiveness were its proximity to the major European markets and the flexible organisation of its business structures, which encouraged companies to locate in industrial districts.

The signing of Spain's Preferential Trade Agreement with the EEC in 1970 began a period of great expansion for Spanish exports to the European market thanks to the favourable exchange rate and the maintenance of tax reductions for exports. Between 1970 and 1985 the volume of Spanish knitwear exports multiplied 10 times (from 2322 to 23,113 tonnes). The upshot was that the trade balance of these items was largely positive until 1987, with the peak being recorded in 1984. However, the emergence of the Spanish knitwear industry onto the international scene took place in an atmosphere of severe readjustment. Knitwear producers were hit hard by the recession in the mature sectors of Spanish industry; 410 firms closed between 1974 and 1984, with 29,622 employees made redundant (though part of this drop was purely statistical, given the extent of the hidden economy during the years 1974–84).

Spain's entry to the EEC in 1986 completed the opening up of the country's economy. The Spanish knitwear companies' swift adaptation to the internationalisation process entailed a fundamental shift in foreign relations, with effects on how the industry functioned. With rising competition and waning protection, the sector was obliged to adapt to new circumstances. Real imports of knitwear in Spain multiplied by almost six between 1986 and 1992, including both products from a higher quality segment (from Europe and especially from Italy) and products that were competitive price-wise (imported from Asian countries). The obvious consequence was a downswing in prices.

As these imports captured domestic consumption, Spanish producers were forced to respond by seeking access to foreign markets. The process was by no means straightforward: coinciding with the heavy influx of imports, the rising value of the peseta between 1989 and 1992 put great pressure on exports. But after the currency devaluation of 1993, Spanish knitwear exports recorded an extraordinary change. The swift rise in the foreign sales of knitwear goods (targeted at the European Community) was unprecedented: from 1992 to 2004 the value of Spanish knitwear exports rose from €242 to €1564 million.[3]

Figure 1 presents an overview of the export behaviour of the knitwear industry between 1961 and 2004. The revealed comparative advantage of knitwear was positive for almost half a century. The new breakdown in the product classifications in foreign trade in Spain since 1988 highlights several further nuances. From 1988 until 2004 knitted fabrics (the most capital-intensive phase) continued to be competitive, but knitted garments and accessories (items which by definition required sewing) did not, which shows that since then the offshoring of production was concentrated in the manufacturing phase.

The increase in Spanish knitwear exports coincided with significant new developments in the machinery used internationally in the knitwear industry. The most important textile machinery producer in Spain was Jumberca SA from Badalona, a world leader in circular knitwear machines for the knitwear industry. In 1986, some years after the oil crisis, Spain was ranked eleventh worldwide in knitwear exports, and twelfth in sales of knitwear machines. In the majority of the leading countries, high levels of technology and production went hand in hand.

The end result of this process was a significant improvement in the position of Spanish knitwear in several specialities in the world market (Table 1). In terms of knitwear exports, Spain rose from eleventh place in Europe in 1966 to eighth in 1986, and reached a highly creditable fourth place in 2004. The gap between Spanish

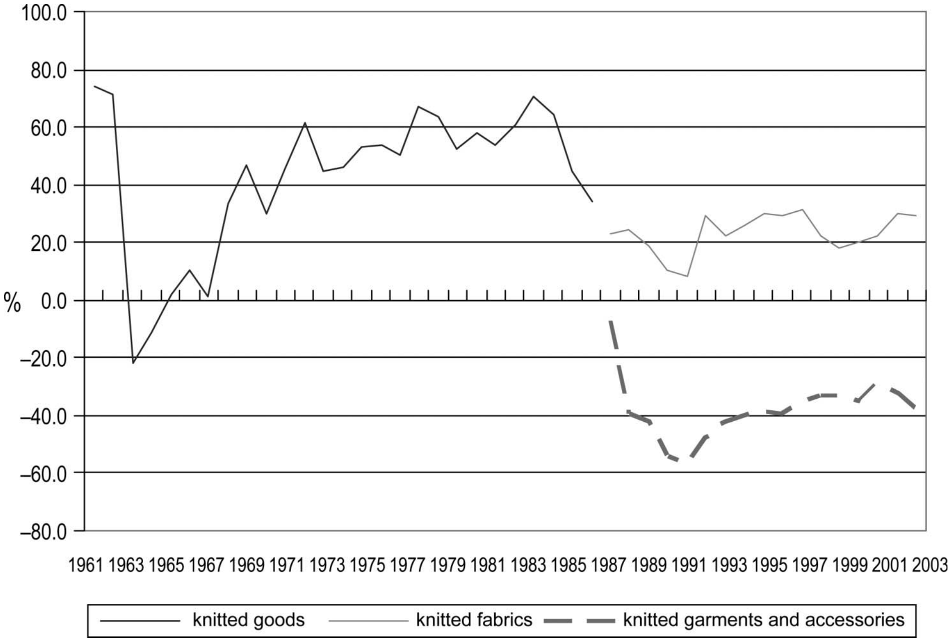

Figure 1. Revealed comparative advantage* of knitwear (Spain, 1961–2004).
*Revealed comparative advantage = ((Xi – Mi)/(Xi + Mi)).
Sources: Dirección General de Aduanas (1961–2004).

Table 1. Principal exporters of non-elastic knitwear underwear, 1975 (millions of dollars).

Country	Exports
Hong Kong	186
West Germany	124
Italy	107
France	89
South Korea	70
UK	41
Netherlands	38
Singapore	35
Austria	31
Spain	27

Sources: Nadal (2003, Table III.5.1.8).

exports compared to those of Italy, Europe's leading exporter, also narrowed, especially from 1986 to 2004.

The production of knitwear in Spain has been characterised by marked regional localisation. The localisation of Catalan knitwear production into districts was reinforced during the second half of the twentieth century. In 1952 more than 75% of the weaving mills and cotton knitwear factories in Spain were located in Catalonia, followed at a considerable distance by Valencia, with 11%. During the period of analysis Catalonia's share of knitwear production declined (from 63.6% in 1978 to 58.9% in 1990). Nonetheless, the knitwear districts in Catalonia maintained their importance. In 1978 the counties of Maresme and Anoia (of which Igualada was the capital) were home to 50.4% of the jobs in the Catalan knitwear industry, but by 1990 this figure had risen to 63%. Over this 12-year period the weight of the two districts had become more balanced: though the Maresme was still the main producer. Anoia was catching up, rising from 17.3% to 28.0% of Catalan knitwear production from 1978 until 1990. More recently (in 2001), the local districts of Mataró (with 11,670 jobs) and Igualada (with 6282 jobs) were the second and third ranked districts specialising in textiles and fashion in Spain, and were among the most important textile regions in Europe (Boix & Galetto, 2006; European Textile Collectivities Association, 2005). Indeed, the leading Spanish manufacturers of hosiery, knitted outerwear and knitted underwear in 2002 were located in these two districts (Sara Lee D.E. España, Vilaseca SA, Comdipunt SA and Basi SA in Maresme; and Industrias Valls SA and Biosca Riera SA in Anoia) (Informa D&B, 2005, pp. 2637–2638).

The creation of brands in industrial districts

At the end of the nineteenth century mechanisation led to a high geographical concentration of knitwear production in industrial districts in most Western countries (Nottingham and Leicester in England, Troyes in France, Saxony in Germany, and Pennsylvania in US). With the introduction of mechanisation in Spain this industry put down firm roots in Catalonia, especially in Maresme and Igualada. The district of the Maresme (Mataró, Canet de Mar and Calella) was the leader, but Igualada became a particularly dynamic centre of knitwear production during the second half of the twentieth century. The two districts arose and developed over different periods of time in accordance with their own local conditions.

In the last third of the nineteenth century the economy of the Maresme district was based on traditional craft methods with capital from the artisans and traders. At this time the trading partners of the first modern firms had close links with the colonial markets in Cuba, Puerto Rico and the Philippines. The district's geographic location on the coast and its transport links with Barcelona placed it at the forefront of the process of mechanisation of knitwear production. From its early days, Maresme's technological specialisation in knitting was based on high performance circular looms, which were ideal for specialisation in undergarments.

Manufacturers had been aware of the importance of brand creation since the very beginnings of the modern knitwear industry. The first application for a modern trademark by a knitwear producer was presented on 27 July 1889 by a Mataró firm – Sobrinos de Antonio Regás – under the name 'Ángel de Marcaida'. The trademark's illustration was genuinely innovative, being much more colourful and attractive than the standard trademarks of the time, and the name was an explicit reference to the colonial market for which the product was destined, the Philippines. At that time knitwear trademarks were often accompanied by eye-catching illustrations of animals in order to establish the product among a Spanish public that was still mainly illiterate.

By the first two decades of the twentieth century the Maresme district was firmly consolidated thanks to the density of its business network, the role of auxiliary finishing and dyeing companies, repair workshops, spinning, clothing workshops, transport, packaging and auxiliary services, among others), although it was not until 1932 that regular training in knitwear production techniques was offered in Canet de Mar. By that year Maresme had the institutions an industrial district required: a business organisation (the *Asociación de Fabricantes de Mataró* created in 1902 and later renamed *Asociación Patronal de Géneros de Punto de Mataró*), trades unions (the *Sociedad Fabril de Géneros de Punto de Mataró*, among others), financial institutions (the *Caixa d'Estalvis Laietana*, founded in 1863) and a technical training centre, the *Escuela de Tejidos de Punto*, founded in 1922 by the *Mancomunitat*, Catalonia's governmental institution. The industry's machinery had traditionally been imported from abroad, but during the period of autarky after the end of the Civil War machinery was developed inside the district itself.[4] In fact during the 1970s the Maresme was the main producer of knitwear machinery in Spain, exporting to many countries abroad.

Between 1900 and 1935 production in the modernised knitwear industry expanded rapidly, leading to a fivefold increase in the annual registration of trademarks and to the emergence of new industrial locations. The changes were qualitative as well as quantitative: brand names became gradually more sophisticated, no longer just reproducing the names of the firms' owners but evoking ideas and sensations that might be associated with the use of the product, especially in the case of women's hosiery. At the start of the 1930s most of the leading firms in the Maresme district had already registered and consolidated their brands (Marfà, Gassol, Asensio, Colomer, Monfort's, Llobet Guri, Jover, among others), while some smaller firms from Igualada such as Carner and Valls and Terrassa (Verneda) began to follow suit. In this period trademark registration was closely linked to company size: larger firms, with more capacity for investment and for exploiting scale economies, were better placed to create new brands.

The district of Igualada developed later than Maresme and offers an interesting contrast in terms of location and transport, situated as it is in the inland region of the province of Barcelona, with certain geographical obstacles that caused problems for access by rail (until 1893) and land (until the construction of the Bruc tunnel in 1977). This was a major stumbling block for the district in its attempts to establish a textile industry in the late nineteenth century, and in fact knitwear production emerged initially as a side line to leatherwork, with which it was able to share commercial networks. The knitwear industry in Igualada made its first tentative steps in the early twentieth century, but at the time of the Civil War its activity remained negligible and only began to consolidate during the 1950s. Knitwear production in Igualada took a long time to become fully mechanised. However, though less productive than circular looms, its machinery created better quality products and offered greater versatility with regard to including motifs or combining colours. Before the Civil War, Igualada produced undergarments and hosiery, but the post-war period saw a major shift towards outer garments made using flatbed weft-knitting machines. The interest in fashion came to the fore with the active creation of trademarks in the 1950s and the support of the district's knitwear business association, which in 1964 launched an advertising campaign under the slogan 'Quality Igualada', which was also added to the products' labels.[5] The district's specialisation in outerwear heightened the visibility of its products in the market.

During the second half of the twentieth century, Igualada expanded due to the greater availability of cheap labour and the few alternatives for female workers in the region. Igualada was able to generate its own auxiliary industry and created its own institutions, albeit not to the same extent as the district of Maresme. In any event, both knitwear districts possessed not only local business groups acting at county level but other sectoral associations as well such as the Agrupación Española de Géneros de Punto which promoted the export of the goods and helped to create educational institutions towards the end of the twentieth century.[6]

The geographical proximity of the districts (separated by a distance of less than 100 km) meant that companies could share technological capacities and specialised labour and thus create complementarities. Indeed, the shortcomings in terms of training, specialised machinery and textile finishes in Igualada were to a large extent remedied by firms from the Maresme district.[7] A good example of the interrelations between the two districts was that the larger firms from each area also had establishments in the other area in 1975.[8]

The boom in Igualada coincided with the golden age of knitwear in Spain which underwent rapid growth (production rose 8.1% per year between 1962 and 1974) thanks to the increase in demand and to the fact that new knitwear products were taking over an ever larger share of the textile market. The expansion of the sector ushered in a frenzy of brand creations between 1955 and 1973, as mass consumption in Spain became consolidated (Garcia Ruiz, 2007). With the expansion of knitwear in clothing the number of companies doubled, many of which competed with each other in the same product ranges. In this scenario, the incentives for registering trademarks were great. Trademarks were used to differentiate the products in the eyes of the consumers but also to identify a new product as a new brand. At this stage, brands gradually became associated with identifiable values that were distinct from those of the competitors. A brand's ability to penetrate the market depended on the connection between its values and consumers' tastes and preferences, and also on the mechanisms of dissemination and popularisation. Until the 1960s newspapers, radio and billboards were the most commonly used, but from the 1960s the popularisation of knitwear brands dovetailed with the age of television in Spain (and therefore with the first televised advertisements) and the appearance of specialist fashion and society magazines.[9] Textile brands proliferated in a newly affluent Spanish market which had a vast capacity to absorb them.

During these years, the registering trademarks firms in the Spanish knitwear industry had very well-defined profiles. By 1971 brand creation in the knitwear industry no longer depended on company size – in stark contrast to the panorama before 1936, when it was a step that only the large firms in the sector could contemplate. The statistical correlation between company size (whether or not the firm had a trademark) and the number of trademarks per company was more significant than the correlation between company size and the existence of a trademark (Pearson correlation = 0.349 vs. 0.192 respectively $n = 275$). The situation still was a relatively permeable market in which new product trademarks were absorbed quite readily, and many different kinds of producers were able to afford registration and the cost of advertising campaigns.

So the registration of product trademarks in the Spanish knitwear sector depended not on a firm's size, but on its territorial location (Table 2). Indeed, in 1971, while 35.3% of the Spanish knitwear companies with more than 50 employees were located in Maresme and Igualada, these industrial districts were responsible for 61.3% of the registered trademarks. The more modest companies in both districts (those with 50 workers or fewer) also accounted for 63.3% of the trademarks registered by the small knitwear companies in Spain. Without a doubt, the strategy of differentiating manufactured products was applied more intensely with high concentrations of specialised production.

Table 2. Location of the trademarks in the knitwear industry, Spain, 1971.

Location	Employment %	Companies %	Trademarks %
Maresme district	26.5	24.0	39.4
Igualada district	11.9	11.3	21.9
Valencia region	11.3	8.7	13.1
Barcelona city	17.2	14.9	9.5
Others	33.0	41.1	16.1
Total	100	100	100
n	45,424	275	137

Sources: Sindicato Nacional Textil (1972) and Servicio Sindical de Estadística (1976).

In 1971 brand creation was not yet a widespread phenomenon: only one-third of the companies in the Maresme had registered trademarks, and less than half of the companies in Igualada (42.5%). Two decades later, the situation had changed considerably. Between 1971 and 1996 the number of trademarks in the knitwear industry rose from 227 to 966, while the number of companies dropped by half in the same period. In 1992 only 31% of the knitwear companies in the Maresme were operating without a trademark, while the remainder decided to use their own brand name (29.0%) or an outside brand name, either from Spain or abroad (32.2%). Only a very small percentage of companies (6.6%) worked indistinctively for their own and external brands. Indeed, the practice of using foreign brand names was well established[10] and had a clear significance: companies with their own trademark develop their own patterns, that is, they are capable of creating design and fashion and personalising their own style (Alòs, Casals, Jódar, Miguélez, & Recio, 1993, pp. 88–89).

The functioning of trademarks in industrial districts

The industrial district operated as a mark of prestige inside the Spanish domestic market. Knitted outerwear articles manufactured in the district of Igualada were highly regarded, as were the trademarks. The long tradition of the district of Maresme vouched for the quality of the garments produced, even if in fact the quality standards might vary. Taken as a whole, the industrial district created an atmosphere of rivalry and cooperation which boosted product diversity and innovation; in fact, this atmosphere was one of the main reasons for the notably high level of brand creation inside industrial districts (Table 3).

Imitation and product differentiation inside industrial districts

The atmosphere of the industrial district fostered both rivalry and informal cooperation between the firms located there. The most evident mechanisms of its functioning were the incentives for the imitation and differentiation of the trademarked products that were commercialised. Trademarked and non-trademarked products did not compete for the same markets and had distinct channels of commercialisation.

One of the most frequent channels for encouraging product differentiation was via the manufacturers' suppliers: through the spinning firms, especially the ones that worked with man-made fibres, which expanded rapidly from the 1960s onwards, and

Table 3. Leading trademarks registered in the Catalan knitwear districts in 1985.

Product	Maresme	Igualada
Hosiery	Molfort's (1924)	Punto Blanco (1950)
	Mimi (1926)	Carlomagno (1958)
	Glory (1951)	Diacar(1952)
	Condor (1951)	
	Pocholo (1957)	
Knitted underwear	Princesa (1927)	Ocean (1932)
	Abanderado (1962)	Jim (1953)
	Antorcha (1955)	Miss (1957)
	Meyba (1945)	Fibad (1963)
	Set (1974)	
	Massana (1977)	
Knitted outerwear	Pulligan (1955)	Escorpion (1954)
	Mobo (1956)	Brigadoon (1961)
	Lemur-Caribu (1976)	Morgat (1966)
		Torradas (1975)
		Esteve (1982)
Knitted fabrics	Dogi (1976)	

Sources: Sindicato Nacional Textil (1972); Instituto Español de Comercio Exterior (1996); also http://www.oepm.es.

through the representatives of machinery makers, who showed off their new equipment and the different finishes that could now be applied. These suppliers provided information on novelties and on their use by other firms. As firms and suppliers were often located in the same industrial district, business information circulated freely inside this environment. The creation of differentiated products was also encouraged by commercial representatives, who also tended to represent firms in the same district and who could provide information on consumer preferences and on the relative popularity of the vast range of novelty products on the market. Information on trends also arrived through visits to international trade fairs.

Before the age of computerisation, the factory machine technician occupied a privileged position in the production process, deciding on the variety of the products and finishes. Over time, this system encouraged the creation of innovative products and processes. In the district of the Maresme, which was home to a technical training school and builders of textile machinery, technical information was passed on between mechanics in firms in the district through informal channels. Frequently the information provided was incomplete, but it was sufficient to introduce new techniques that could create new finishes and new looks for fabrics. This dynamic of differentiation on the basis of imitation and rivalry emerged more between trademarked products than between the firms themselves.

In addition, the industrial districts also encouraged the marketing of new products under new brand names, such as Escorpion, one of the most famous women's knitted outerwear brands. The Igualada district opted for knitted outerwear such as jerseys at an early stage in its development. The concentration of production obliged firms to differentiate their product lines inside the same trademark. Escorpion, the brand just mentioned, was launched in 1954 by the second generation of the Biosca family, who had set up the firm Biosca Riera in Igualada in 1929, producing stockings. The new generation embarked on a large-scale advertising campaign in the mainstream press and in the gossip magazines which popularised the slogan of an 'Escorpion jersey', creating an image of design, modernity, elegance and quality. In 1968 Escorpion opened retail outlets of its own selling knitted outerwear, and from the 1970s onwards it used the commercialisation technique of sales corners in the large department stores and was among the first Spanish firms to expand internationally, in 1983.

Brand rivalry and product innovation

The rivalry among the product brands both inside and outside the industrial districts was strong. For example, the rivalry between the brands Ocean (Industrias Salinas Sabat SA, Igualada), Jim (Fabrilmalla SA, Igualada) and Abanderado (Sans SA, Mataró) fought hard to claim the men's underwear market for briefs in a host of television advertising campaigns from the 1960s onwards. This new men's underwear fashion had been introduced by Industrias Salinas Sabat SA, imitating the prototypes used by the American soldiers in the 6th Fleet anchored in the harbour of Barcelona in January 1951. In fact, the brief was an invention dating back to 1934 by Arthur Kneibler, a designer at the American company Jockey International Inc., inspired by a postcard he received from a friend from the French Riviera showing a man in the bikini-style swimsuit. One year later, the design with the front Y-shaped opening crowned the invention. Starting in 1936, the American brief had spread widely both inside and outside the United States, and was brought to Europe by the American soldiers during World War II. The Spanish Civil War and the post-war conditions kept Spain outside the mainstream trends in underwear, and briefs were not introduced there until 1951.

Ocean (Salinas Sabat SA Igualada) was the first Spanish brand of men's briefs to promote an image of novelty and quality, and was later joined by other brands created with the exclusive aim of competing for market share. The brand Jim (Fabrilmalla SA, Igualada) emerged during the 1950s, bringing colour and nylon fibres to this knitwear product. Jim introduced new marketing strategies including an intense advertising campaign, reflecting its understanding of how important it was not just to manufacture but also to sell. To advertise their product, the company hired emblematic football stars of the period (from FC Barcelona, first with Kubala, Ramallets and Parra, and later with Cruyff, among others). It also sponsored the Tour of Spain cycling race in 1957 and created the Jim Basketball Trophy. With its advertising campaign it reinforced the image of a young, creative brand linked to sports. In 1977 it created the public limited liability company Jimmiss SA with the explicit goal of exporting the brand abroad. It invested in registering the trademark in different countries around the world, albeit with very limited success.

The trademark Abanderado (Sans SA, Mataró) was registered in 1962, also associating the product with modernity through intense advertising campaigns during the 1960s. It eventually established itself as the market leader, capturing 32.2% of the Spanish market for men's briefs by 1994, compared to 2.1% for Jim and 2.4% for Ocean. While Ocean was swept away by other brands that offered more fashionable design, Jim's solid position in design did not make it more competitive price-wise (Municipal Archive of Igualada, 1994). But as popular and good brands, Ocean and Jim survived the companies that created them and they were finally sold to competing companies. Anticipating a French company that wanted to launch in Spain, in 1989 the company Ocean ended up in the hands of Sans SA, and Jim was purchased a decade later by Géneros de Punto Ferrys SA (Canals, Valencia).

However, the leading company in the sector ended up by creating Unno, an innovative brand that met with international success. By 1991 Sans SA (created in 1960) was a multi-plant company employing 2300 workers and invoicing $98.1 million, with three brands (Abanderado, Princesa and Ocean) that were extremely well placed in the Spanish underwear market. The owner of Grupo Sans SA, Pedro Sans Llopart, sold the company to Douwe Egbert for $163.3 million. Grupo Sans thus joined the huge multinational Sara Lee Corporation (which also owned Playtex, Hanes, Dim and others). However, at the end of the twentieth century Grupo Sans was having trouble in sustaining its growth, given that it already occupied a huge share of the Spanish market (three times that of its closest competitor). In 1999 it launched Unno, an innovative product, which would become the first Spanish underwear brand to achieve international fame.

Unno's rise was a curious affair. In 1993 Italian hosiers began to manufacture a kind of machinery that enabled them to produce hosiery and other underwear products without seams, although the new products did not catch on. In parallel, weavers developed a new generation of synthetic yarns made of polyamide which were soft, durable and ideal for use with these machines. The General Manager of Grupo Sans (Josep Maria Sans) saw the potential of the new generation of products for young consumers. The technological system was available to any clothing manufacturer that wanted to adopt it if they were able to create a concept for selling it. Therefore, thanks to a combination of technological innovation, up-to-date marketing and entrepreneurial spirit, the launch of the new product was a resounding success and by 2003 Unno had become the second most popular Spanish underwear brand.[11]

This case illustrates how the rivalry between specialised production trademarks was settled by the advance of companies that would gain the highest position in the market, but not at the cost of using already competitive trademarks. It is necessary to differentiate between the process of brand creation and the purchase of an already existing brand: brand creation is more associated with the behaviour of businesses of differentiation and is linked to more competitive sales strategies. On the other hand, the purchase of brands by previous competitors from companies in the process of closing down may be more associated with more defensive attitudes. The sold brand, whether or not it is sold on by the new owner, often fails to maintain its market quota at the time of the transaction and will tend to occupy a more marginal position (Ramon, 2010). In fact, some information suggests that a company buying a brand also acquires a particular market position, and thus reduced competition by removing the brand from the market, although this subject requires further study.

Commercialisation tactics linked to international projection

The use of modern marketing tactics increased manufacturers' visibility and enabled them to carve a niche for themselves in the domestic and foreign markets. The prominence of companies with trademarks in national trade fairs from the late 1960s onwards and in international trade fairs slightly later is a good indicator of this. The vast majority of Spanish knitwear companies that had been exporting since the 1960s, 1980s and 1990s attached great importance to the brand. In 1984 the leading knitwear companies operating in the international market had their own trademarks,[12] but no powerful core of leading companies in exports had developed among them.

Exporting in those years became a veritable laboratory for these companies, given that the direct contact with the international scene helped them to develop their commercialisation strategies and to raise their competitiveness in a more open market. Through the coming years the export leaders pursued competitive strategies such as maintaining sales networks, focusing on differentiation of the supply and improving the added value of production with notable success, given their high rate of survival.

Whether or not their brands are internationally known is a different matter. These brands operate primarily in the Spanish market and only rarely become established internationally. This is not to say that there have not been many attempts in this direction: between 1977 and 1983 the main companies with trademarks in Anoia decided to focus on internationalisation by setting up other production centres abroad, by selling their own technology and/or by creating their own commercial enterprises. Manufacturas Valls SA (Punto Blanco) had factories in France (1971–79) and Brazil, and had sold its own technology to Mexico and Colombia. Vda. de J. Biosca Riera SA (the creator of Escorpion) had set up a factory in Mexico and opened commercial enterprises in France and the United States. Fabrilmalla SA (Jim, Miss) set up a production centre in Mexico, sold its own technology to Canada, Colombia and Egypt and launched its own commercial enterprises in France and the United States, and Vives Vidal SA (Warner's) also had its own commercial enterprises in France and Portugal (Solé, 1984, p. 170). One of the main stumbling blocks to these brands' internationalisation was that the trademark which set the product apart in the Spanish market did not have the same effect abroad, where there were already products with similar profiles that were more popular among consumers. Spanish brands only managed to go international when the trademark was associated with product or design innovation, as in the case of Dogi (1976), Buff (1992), Desigual (1993) and Unno (2000).

Brand survival in Spain's knitwear producing districts

The life of a brand depends largely on its ability to adapt to changes in consumer tastes and preferences. Brand implementation is a constant process of adjusting the values that identify it to market conditions, which are increasingly competitive and demanding in terms of fashion and design. We define the success of the brand in terms of its survival over time. By and large, we consider that a brand has been durable when it has been successfully implemented over a long period. A brand's success tends to be closely tied to the result of the founding company, although at times successful brands outlive the companies that created them.

Spanish knitwear companies introduced modern marketing techniques in the 1960s and 1970s. In a static analysis of the late twentieth century we see an inverse relationship between the number of brands and their longevity: in fact, of the total trademarks registered in the Spanish knitwear industry in 1996, slightly over one-third were less than a decade old (36.6%), 28.7% were between 11 and 25 years old and the remainder were mature (more than 25 years old).

To analyse the patterns among the successful brands, we focused our study on the mature brands which had been commercialised for at least 25 years, by using information from 1971 and 1996 censuses. We also considered location and the size of the company that launched the brand in 1971.

The results are revealing: the success of the brand depended little on the size of the original company (which was only 58% in both cases), but different patterns emerged according to the geographical area (Table 4). Firms from Igualada showed a much higher degree of brand survival than their Maresme counterparts, especially among large companies. The differences in the success rates between the two districts in terms of the survival of the trademarks between 1971 and 1996 were related to the business structure and the evolution in the patterns of manufacturing specialisation.

The knitwear companies operated inside industrial districts but presented major differences in terms of their business structure. The Igualada district was more hierarchical, with a small number of large companies surrounded by a dense network of small and medium-sized companies: the companies with more than 100 workers concentrated a higher total volume of employment. In the Maresme, small and medium-sized companies predominated (Table 5). Therefore, the hub-and-spoke district of Igualada had greater success in consolidating trademarks than the Marshallian district of the Maresme (Markusen, 1996). This case seems to confirm that hub-and-spoke districts or clusters presented a greater competitive advantage in Spain in the twentieth century. The success of these districts can be attributed to the greater production, marketing, distribution and management capabilities of the anchor companies (Catalan, Miranda, & Ramon, 2008).

A second factor that explains the lower survival rate of the brands from the Maresme district is the change in product specialisation and the renewal of the business structure in the area between 1971 and 1996. In the early 1970s our two districts specialised in different products, as a result of the timing of the expansion in each district: the Maresme specialised in undergarments and the Igualada on outerwear.

In the 1980s the Maresme district entered a stage of maturity, affected by structural changes, the effects of the industrial crisis on mature sectors, and the greater openness of trade. The district underwent restructuring, with modifications to its product specialisation towards a higher quality segment and outerwear (which proved to be the right choice) and its business network. The industrial crisis led to the closure of many non-trademark establishments manufacturing low quality products, but also left other emblematic companies by the wayside, including Industrial Mataró-Gerona SA, Asensio SA, Colomer Hnos, Torrellas, and others with a century of experience in the sector. Although some of these companies possessed trademarks that dated back to the pre-Civil War period, lost impetus during the 1960s and the early 1970s and were anchored in the domestic market, with vertical integration and more rigid (and in some cases obsolete) technological production structures.

The restructuring of the Maresme district highlights the greater survival rate of trademarked than non-trademarked companies. The owners' and employers' associations drew up a strategic plan for the future of the district which advocated a reassessment of production policy (Alòs et al., 1993). By 1992 the production of knitted underwear in Mataró had dropped to 33.2% of the total, and by 2004 it had fallen further to 20%, the same proportion as children's clothing, while outerwear accounted for 50% (Consell Comarcal del Maresme, 2004, p. 54). Unquestionably, this intense change in production patterns was possible thanks to the existence of the industrial district with its dense network of complementary companies and training centres.

Table 4. The success of brands in the Spanish knitwear industry (1971–96).

Company size	All			Companies with > 50 workers		
Location	Brands from 1971 (A)	Brands from 1971 still on sale in 1996 (B)	Success of the brand (B/A)*100	Brands from 1971 (A)	Brands from 1971 still on sale in 1996 (B)	Success of the brand (B/A)*100
Maresme district	94	43	45.9	54	26	48.0
Igualada district	47	36	76.9	30	26	87.0
Valencia region	24	11	45.5	18	6	33.0
City of Barcelona	14	4	28.8	13	4	31.0
Others	48	37	77.0	22	17	77.0
Overall brands (n)	227	131		137	79	
Mean			57.8			57.7

Sources: Sindicato Nacional Textil (1972); Servicio Sindical de Estadística (1976); Instituto Español de Comercio Exterior (1996).

Table 5. Business structure of Mataró (Maresme) and Igualada in 1983.

Size according to number of workers in the establishment (%)	Companies		Workers	
	Mataró	Igualada*	Mataró	Igualada*
From 1 to 10	42.1	36.4	7.6	2.8
From 11 to 50	46.4	39.4	36.3	16.1
From 51 to 100	7.2	11.1	20.1	14.0
>100	4.3	13.1	35.9	66.8
Overall	100	100	100	100

*In the case of Igualada, the classification of the number of workers per establishment varies slightly: 1–9; 10–49; 50–99 and equal to or more than 100 workers.

Sources: The figures for Mataró come from the Vilaseca Association of Mataró based on a survey conducted by the business group ASEGEMA. The figures for Igualada come from FAGEPI and are reproduced in Sole (1984, p. 174).

The productive reorientation of Maresme during the 1980s coincided not only with the acceleration in the liberalisation of the foreign market but also with changes in the systems of retail distribution. The traditional model based on independent, multi-brand retailers was plunged into crisis as these firms lost market share. Once again, compared to other Western economies, the concentration of the textile distribution channels in Spain was slow in coming and the adaptation process had to be fast (Fabregat, 1992, p. 218). From 1985 to 2004 multi-brand shops saw their market share fall sharply as they lost their place as the main retailers to the large department stores and specialist chains.

Until the 1960s wholesale traders had played a stabilising role in textile distribution in Spain. But the improvements in transport encouraged retailers to forge more direct business relations with producers, by-passing the wholesalers, in order to increase their sales margin. The decline of the wholesaler, an emblematic figure in textile distribution, had dramatic consequences: the concentration of retailing left producers who did not have a sound commercialisation network to fend for themselves.

This process has had far-reaching consequences for business logic and has reduced the negotiating power of the producers vis-à-vis the retailers, which are becoming increasingly centralised, leading in some cases to situations of monopsony. The application of the new information technologies by the large retail chains since the 1980s has revolutionised the textile sector, as it enables them not just to keep abreast of changes in the market but to adapt supply instantaneously so as to meet demand. Clothing companies have realised that it is much more profitable to produce what they sell than to accumulate what they have produced as inventory (Nueno, Mora, & Montserrat, 2003, p. 25). The most obvious example in the textile-clothing sector in Spain is INDITEX, today one of the world's largest fashion groups (Alonso, 2000).

Channel distribution is equivalent to forward vertical integration: production and distribution. Today, the cornerstone of the textile business is no longer manufacturing but retail. Traditionally, the knitwear sector was one of the textile specialities that are closest to distribution: its end product is aimed at a particular consumer (in a variety of models, colours and sizes) and firms only use commercial intermediation to find out about market preferences and tastes. This proximity has allowed knitwear firms a greater capacity for adaptation to market changes and has been a fundamental asset in their long-term dynamics (Llonch, 2007). Indeed, in some cases the knitwear industry has made notable efforts to integrate production and commercial distribution from an early date: in 1968, for example, the Igualada firm Viuda de J. Biosca Riera SA opened the first retail outlets carrying its Escorpion brand of knitted outerwear.

In the Maresme district, the productive reorientation towards knitted outerwear encompassed firms with their own brands, firms with brands belonging to other companies in the district, and firms without brands that worked for companies holding trademarks based elsewhere. In the first case, the use of product brands in channel distribution increased notably during the 1990s. In children's clothing the brands Caribú, Valenri, Bóboli and Canada House stand out. They did not originate from newly created companies but were endorsed by small and medium companies with ample experience of the domestic and international market over the previous 50 years. Another exemplary case was Punt Roma in 1997, a chain of retail outlets created by Rodrigo García López who had spent his formative years among the looms in Mataró. In 1976 García had set up Géneros de Punto Victrix, a firm which developed on the basis of a registered trademark and had an eye for export opportunities, but during the 1990s he realised that the changes in the distribution system called for new approaches and he decided to focus on large sizes for women, an area that had been relatively neglected. In 2010 the retail brand Punt Roma – covering all kinds of textile articles and garments and complements – had 179 establishments in Spain and more than 65 sales points abroad, where it distributes clothing made in Mataró, Morocco and Asia.

Even though the investment needed multiplies the risk, the advantages of the channel distribution system are numerous. First, it protects the domestic market; second, it is part of an export strategy because it helps the brand to penetrate foreign markets and increases its visibility. Third, it circumvents the control of the large distributors and enables the chain to offer more competitive prices, setting up an unrivalled platform for identifying market preferences and responding to them quickly and efficiently. Brands have played a major role in the changes in distribution. The consolidated product brands have managed to secure a more stable market position, as consumers fully identify the products and are less likely to change to others, while the retail brands have offered the textile business a new avenue.

Conclusions

This article has explored the role of trademarks in two industrial districts and their effect on the development of Catalan knitwear industry over a period of 100 years, roughly spanning the twentieth century. Whereas at the beginning of the century firm size was decisive for creating trademarks, this was no longer the case from the mid-century onwards, when the most decisive factor was business location. The atmosphere of the industrial district encouraged imitation and competition between firms and led them to create and register more trademarks in order to differentiate their products.

Albeit with some qualifications, our results support previous reports in the literature on industrial districts which have highlighted product differentiation and innovation in industrial districts as sources of competitiveness. From the methodological perspective, the article confirms the validity of registered trademarks as an indicator of a district's dynamic, as they can shed light on a series of intangible elements that are essential for an understanding of the region's development.

The existence of brand creation in a particular district does not necessarily mean that the district was competitive. Our comparative analysis of the evolution of the two industrial knitwear districts has allowed us to qualify the scope of the relation between brand creation and competitiveness. The mere presence of a brand was not enough: it had to survive. Between 1970 and 1996 the districts of the Maresme and Igualada fared quite differently in terms of brand consolidation. Our study shows that the explanatory variables were the differences in business structure and product specialisation in the two districts. In Igualada, the first brand-creating firms generated greater economies of scale and consolidated a nucleus of larger firms inside the district. This hub-and-spoke industrial district was more successful in maintaining its product brands. For its part, the vitality of the Marshallian district of the Maresme allowed it to shift its product orientation towards outer garments, in some cases opting for retail brands.

Our finding that a hub-and-spoke district was more successful than its Marshallian counterpart in creating brands in the knitwear industry corroborates previous reports which have identified the hub-and-spoke model as the dominant modality in the competitiveness of Spanish industrial districts during the second half of the twentieth century. Our results suggest that the economies of scale of the larger firms which acted as the engines of the district were reinforced by the district's external economies.

The brand-creating firms were exporters during the 1970s and 1980s. Their brands did not manage to establish themselves internationally, but their existence helped to consolidate the commercialisation strategies in a more open market. So the creation of registered trademarks was related to more innovative approaches to business management, which lends further support to the use of the brand as an indicator of the development of innovation. Brand creation in industrial knitwear districts in Spain between 1950 and 1970 proved to be an ideal strategy. With the increase in mass communication, the penetration and popularisation of these brands in the Spanish domestic market was intense. Similarly, brand-creating firms tended to be less vulnerable to the changes in retailing that occurred during the last two decades of the twentieth century and in fact they maintained their consumer visibility better during this period of concentration of large-scale textile retailing. Brand products could not be so easily standardised or replaced by those of other firms.

In conclusion, the industrial district was an important factor in brand creation, but the consolidation of trademarks also played a key part in the survival of the knitwear districts.

Acknowledgements

This research has benefited from the financial support of the Spanish Ministry of Science and Innovation through project HAR 2009-07571. A preliminary paper was presented in *2009 EBHA-BHC Fashions: Business practices in historical perspective in session 2.D From manufacturing to fashion: Textile and shoemaking clusters in Spain*. I am grateful to the participants of this meeting for their useful suggestions, particularly Jordi Catalan and the discussant of this session John Wilson. I wish also to thank the anonymous referees for their helpful comments. I would also like to express my gratitude for the comments and materials provided by the interviewees (April 2009 and October 2010), especially Josep M. Ferrer, Lluis Agustí, Jaume Julià and Tomàs Juvé (Vilaseca Foundation, Mataró), Raül

Cristòfol (Secretary General of Knitting Employer's Association of Mataro and Maresme area, ASEGEMA) Ramon Enrich (Spanish Association of Knitting Employer's), David Garcia (Manager of Knitting Employer's Association of Igualada and Anoia area, FAGEPI), Jesús Ramiro (Manufacturas Valls 1 SA enterprise, Chief of Human Resources) and Pere Sugrañes (Sugrañes Technical-Legal Office of Patents and Trademarks, Barcelona).

Notes

1. The 1996 census of knitwear trademarks lists companies by specialities and their brand names registered by the Spanish Institute of Foreign Trade. Research identified 966 entries with 418 trademarks, 358 of them registered prior to 1996. So this study covers 37.1% of the total trademarks listed, which suggests that the vast majority of trademarks were operating without being registered (perhaps to test their products' viability) based on the low opportunity cost of not registering them. The registration of trademarks is proof of their value on the market.
2. The knitwear sector is a textile sub-sector defined first and foremost by its technical characteristics. Unlike woven cloth (made of yarn woven on a warp and weft), knitted fabric is made by forming meshes using a single yarn or several interwoven yarns. Knitted fabrics are usually made on a very specific kind of machine which is quite unrelated to the more usual type of warp and weft weaving.
3. Of course, these figures do not refer solely to overseas sales of these goods, but take into account the rising process of company internationalisation (intra-industry trade, industrial offshoring to other countries, cooperation agreements with foreign companies and the opening of subsidiaries abroad), and especially to the success of Spanish textile distribution in the international market since the mid-1990s.
4. The workshops that made the machinery for the knitwear industry were located near the textile producers: Mataró (57 workshops) and the city of Barcelona (with 29 workshops) had the highest number of establishments where machinery was built, especially during the period of peak expansion between 1960 and 1974. Nevertheless, the leading producer of machinery was Jumberca SA, in the city of Badalona.
5. FAGEPI (Agrupació Comarcal de Fabricants de Gènere de Punt d'Igualada), Historical Archives, 'Circular', 100 (10 April 1964).
6. In the mid-1980s a service was created to foster the export of knitted goods, open to any companies interested. This was one of the organisations that promoted the Higher School of Design founded in Sabadell in 1989.
7. Some prominent companies, such as Manufacturas Valls SA, overcame these difficulties by organising training and setting up sections to repair the machines, dyes and finishes inside the company itself. The entire productive cycle was vertically integrated, from spinning to finishing, with a printing press on site.
8. The largest Catalan knitwear companies had factories in both districts. In 1975 Industrias Valls de Igualada (which specialised in sportswear, t-shirts and socks) employed 794 workers distributed in their factories in three towns: the headquarters in Igualada, and two towns in the Maresme, Arenys de Mar and Mataró. Likewise, Sans SA, manufacturing underwear, employed 1500 workers in five different towns, at its headquarters in Mataró and in Igualada, Ripoll, Cassà and Martorell.
9. One of the most emblematic brands of women's knitted outerwear, Escorpion (Vda. de J. Biosca Riera SA, Igualada), chose large-scale advertising campaigns in mainstream newspapers like *La Vanguardia*; in fact, it was the first advertiser to appear on the newspaper's back cover. Escorpion also had an advertisement in the first issue of the gossip magazine *!Hola!* and continued to advertise there for four more decades.
10. The British brand Burberry had been registered in Spain in 1922 and since the mid-1950s the requests for licences for foreign brands had begun to rise (the US brand Warner's was the foundation of the development of Vivesa SA from Igualada, one of Spain's leading lingerie companies).
11. *Unno, marca de ropa interior nacida en España* (November 2003).

12. The following exporting companies deserve mention: Antonio Aleñá (Anabelle), SA Textil Massana (Massana), Rodri SA (which later created Punt Roma), Isidro Jover y Cía Sa (Pulligan), Star Textil SA (Bóboli), SA Sans (Abanderado), Géneros de Punto Torras Sa (Torras), Géneros de Punto Ferrys (Ferrys), Industrias Valls SA (Punto Blanco) and Carlyps SA (Carlyps). Of these ten companies, seven were located in the Maresme and one in the Anoia district. Two more companies that were prominent in those years were Industrial Aragonés Sa (Antorcha) from Pineda de Mar and Vda. De J. Biosca Riera SA (Escorpion) from Igualada.

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