European Foundation for the Improvement of Living and Working Conditions

EU textiles and clothing sector: Location decisions

european monitoring centre on change

Wyattville Road, Loughlinstown, Dublin 18, Ireland. - Tel: (+353 1) 204 31 00 - Fax: 282 42 09 / 282 64 56
email: postmaster@eurofound.europa.eu - website: www.eurofound.europa.eu

Introduction

Global developments, such as the de-regulation of international trade in goods and services and the evolution of a global transport and communication infrastructure, provide opportunities for European companies due to increased access to emerging markets, ability to cut costs and acquisition of new knowledge by relocating activities. However, the process also increases competitive pressure on European companies as foreign competitors have access to the European market and poses a threat to the employment and welfare of Europeans in regions experiencing extensive restructuring or the closeure of companies.

For companies in the European textiles and clothing sector, the global developments create new challenges as well as strategic options, not least by making it possible for companies to move their activities to locations that offer the best possible combination of benefits and costs to the company. In fact, in the last two decades, many western European textiles and clothing companies have moved manufacturing activities to low-cost countries in Eastern Europe or to non-European countries (e.g. India, China), resulting in a decline in sectoral employment.

This report examines the main factors influencing the location decisions of companies in the European textiles and clothing sector. It is based on existing research literature and empirical studies

Main drivers of change

Due to various pressures for change as a result of consumer developments, technological advances, changes in production costs, growth in retailers' purchasing power and environmental issues, the European textiles and clothing industry is characterised by being in a state of continuous restructuring and modernisation (Eurostat, 2006, p. 65). Moreover, the dynamics in the textiles and clothing industry are currently much influenced by the liberalisation of international trade. The latter has been driven forward by the abolition of the textiles and clothing import quotas on 1 January 2005 and the Doha Development Round negotiations on tariffs and non-tariffs barriers.

The industrial restructuring process has led to significant changes in the location of production activities in the textiles and clothing sector. A conceptual framework for understanding and describing such changes has been developed by linking a geographical dimension with an organisational dimension. The geographical dimension focuses on the location of the provider of the outsourced good or service – that is, whether it is supplied from within the same country or outside the country. The organisational dimension concerns the corporate control of the good or service provider – that is, whether the good or service is supplied internally from an affiliated enterprise or branch of the same company (internal), or whether the good or service is supplied from external suppliers (external). The outsourcing of activities in the sense of being contracted out to independent parties outside the country – nearshore and offshore outsourcing – essentially involves multinational enterprises; however, small and medium-sized enterprises (SMEs) which do not have activities abroad may also be affected. Subcontracting takes place between non-affiliated companies but often in a relationship of cooperation or partnership (OECD, 2007). It is worthwhile noting that the model initially used the term 'control' (insourced/outsourced) as an equivalent to the organisational dimension and the term 'location' as an equivalent to the geographical dimension (see Table 1).

Table 1: *Geographical and organisational dimensions of location of activities*

Organisational dimension		National	Within the EU	Outside EU
	External	External onshore outsourcing	External nearshore outsourcing	External offshore outsourcing
	Internal	Internal domestic supply	Internal nearshoring	Internal offshoring
		Geographical dimension		

Source: *Adapted and elaborated from OECD, 2004b*

The European textiles and clothing industry has experienced a high degree of outsourcing to and competition from low-wage environments, due to its labour-intensity, high proportion of entry-level jobs for unskilled labour, ease of transport and relatively low investment costs. Thus, nearshore outsourcing to countries in the European Union (EU) and offshore outsourcing to non-EU countries are a well-known phenomenon in the textiles and clothing industry.

Therefore, exploring location decisions of companies in the European textiles and clothing industry inevitably addresses the question of outsourcing, as well as that of alternative business strategies put in place by European companies to stay competitive in light of pressures for change and strong competition from low-cost countries.

Overall, the European textiles and clothing companies respond to pressures for change by pursuing the following two business strategies (see Eurostat, 2006; Lane and Probert, 2004; Abecassis-Moedas, 2007):

- relocation of production and activities to low-cost countries;
- development of added-value activities in the higher end of the value chain.

It is important to acknowledge that these two responsive strategies are not mutually exclusive but rather complementary (Abecassis-Moedas, 2007). The second strategy – development of high-end textile products with a significant added value – involves choosing production locations which are not in competition with low-wage countries, thereby also being a strategy towards coping with competition from low-wage countries.

Location strategies

Determinants of location decisions

The determinants of company location decisions are complex. The decision to locate production outside the country of origin will often be based on an assessment of comparative factors, such as labour costs and productivity, capital investment and other inputs between nations and their impact on product costs, as influenced by transport, insurance and other related costs (Abernathy et al, 2004). Access to markets and inputs – such as workers, suppliers, and business and market knowledge – and their availability also influence location decisions.

When choosing to locate or relocate business and production activities, companies are also likely to take into account external factors which will shape corporate policies, such as current and expected political stability, regulations, exchange rates, taxation, quotas and tariffs, and freedom from restrictive legislation.

An observed trend in the textiles and clothing industry is that the supply chain is increasingly organised as an integrated production network, within which production is divided into specialised activities. In this case, each activity is located where it can contribute the most to the value of the end product. When companies decide on the location of each activity, important variables of the decision-making process include costs, quality, reliability of delivery, access to quality inputs, transport and transaction costs (Nordås, 2004).

The extent to which the textiles and clothing industry participates in international production networks has been analysed by the Organisation for Economic Co-operation and Development (OECD). The OECD analysis is based on a vertical specialisation index, which measures the share of foreign value added embodied in exports or, in other words, the imported intermediate inputs contained in exports as a share of total exports. The index captures one important characteristic of international supply chains, namely that parts, components and semi-finished goods cross borders several times before the final product reaches the consumer. This characteristic of a value chain's vertical specialisation implies that tariffs have a multiplier effect on costs, which makes trade driven by vertical specialisation particularly sensitive to tariffs (*ibid*, p. 8). The poorer and smaller countries in the sample show a higher vertical specialisation index than the larger and richer ones. This finding indicates that being part of a production network could be an important factor for small and poorer countries considering entering the export market. Moreover, an empirical estimate finds that small countries are indeed more likely to engage in vertical specialisation than larger countries; for instance, Ireland, Denmark and the Netherlands show high vertical specialisation indices in the textiles and clothing sector (*ibid*, p. 9).

Value chain perspective on location decisions

A value chain perspective offers an overall framework for understanding companies' location decisions and strategies. The value chain is understood as being the sequence of productive – that is, value-added – activities leading to and supporting the end use of a good (Sturgeon, 2000). The concept of a value chain was first developed by Porter (1990) and is the subject of fast-growing literature in economics and management (Mills et al, 2004).

Regarding the European textiles and clothing industry, a value chain perspective is suitable for grasping recent trends in companies' location decisions, as some of the latest studies show that European companies' strategies involve a move in the value chain activities (Abecassis-Moedas, 2007; Evans and Smith, 2004).

The underlying argument in a value chain perspective is that the level of value added and the content of tacit knowledge in an activity affect companies' decisions in terms of location. The lower the level of value added and the less tacit knowledge the activity requires, the more likely it is that delocalisation will take place (Millard, 2002 and 2004). This phenomenon can be illustrated by the following types of innovation and competition approaches.

- Cost-driven innovation and competition is based on profitability improvement, through increased sales of existing products and services, lower costs per production unit and its delivery, cheaper labour and other factor inputs. Improved profitability can, for example, be achieved by keen price differentiation, maximising the efficiency of supply chain delivery and logistics, as well as by automation through the application of information and communication technologies (ICT). Such innovation is often associated with highly-explicit, or codified, knowledge activities which are not bound to a particular location and thus more dispersed in geographical terms. In this case, the value added of the business chain is likely to be mostly embedded in the technology and systems themselves.
- Value-added, that is, research and development (R&D) driven innovation and competition is based on identifying and commercially exploiting R&D activities which take place within a company, research institutions and laboratories or within a cluster of these. This type of approach may result in the development and patenting of new products, but it may also generate innovations in processes, product organisation or in delivery mechanisms and services. Such innovation is often associated with highly-tacit knowledge activities which are based on experience and often require a lot of face-to-face contact – these activities cannot easily be moved around and are thus effectively tied to one location. In this case, the value added of the business chain tends to be mainly embedded in people and organisations.

- User-driven innovation and competition primarily focuses on stronger branding, typically by differentiating products and services from those of main competitors through a combination of new products, individualised services, product adaptation and testing, marketing and customer relations management. In this case, strategic knowledge about new or existing markets and customers drives innovation, often with a direct input from customers or employees reflecting their own understanding of market developments. This type of innovation is a subset of value-added driven innovation; however, it focuses more on constant strategic inputs of customer intelligence and knowledge rather than on R&D.

All three approaches are prevalent in the European textiles and clothing sector, due to the fact that the manufacturing of textiles and clothing is a labour-intensive and low-wage industry, as well as a dynamic and innovative industry serving different market segments. Thus, companies' strategies and location decisions will differ according to the following three aspects: market segment orientation; function in the industry's supply chain; and the added value of activities.

Location trends

Relocation of production activities to low-cost countries

Offshore and nearshore outsourcing to low-cost countries is a well-known phenomenon in the European textiles and clothing industry. The outsourcing strategies of European textiles and clothing companies have centred on subcontracting labour-intensive work or relocating production facilities, first towards lower labour-cost areas in central and eastern Europe and then to the Pan-Euro-Mediterranean zone (Eurostat, 2006, p. 65).

The relocation of production activities has led to intensive trade relations between the 'old' 15 EU Member States (EU15 – prior to the 2004 enlargement) and the eastern European countries. As a result, eastern European countries, as well as those of North Africa, and Turkey are among the top suppliers of clothing to western European countries, while also being among the top markets for textiles produced in western Europe (Heymann, 2005). With the liberalisation of the textiles trade in 2005, the clothing industry and in particular that of eastern European countries faces increased competitive pressure from lower-cost countries and regions. Thus, eastern Europe's textiles and clothing industry will have to focus more on its specific advantages over the competition from China, for example.

Determinants of outsourcing

Outsourcing has mainly happened as a response to increased competitive pressures and technological progress. Outsourcing has focused on the activities within the textiles and clothing industry which are not bound to a particular location, due to factor inputs and their availability; in other words, particularly activities in the lower end of the value chain have been outsourced. In terms of products, this mainly concerns more standardised or non-replenishment goods; the latter refers to garments which are not restocked when out of stock.

In many cases, the wage level is cited as the main reason for outsourcing production activities. However, wages are not the only important factor driving outsourcing strategies of companies. The various factors influencing companies' location decisions when it comes to outsourcing activities to other countries can be illustrated by the clothing industry in the Netherlands. Several factors have played an important role in the location decisions of Dutch clothing companies, including: physical distance to the market; reliability; flexibility; volume of series; and possible range of garment sizes (Ecorys, 2005). In the case of the UK, another recent study finds that British clothing companies also outsource production to offshore locations because of gaps in the value chain showing a lack of suppliers or customers (Abecassis-Moedas, 2007).

The technological progress in telecommunication and transport networks has made it possible for clothing manufacturers to outsource production segments internationally and perform the assembly stage in low-wage countries. However, the decision to outsource certain segments of production also depends on supplementary costs in relation to transport of intermediary inputs, longer inventory holding and added managerial time in production coordination. In this respect, driving forces countering the outsourcing of production segments are the increased importance of the time factor, particularly in the fashion segments of the industry, and the importance of proximity to consumer markets. In the latter case, production activities are kept on location or in short distance of the main markets. This issue will be further discussed in the following section.

Role of time factor

Non-replenishment products, in particular the specialised fashion-oriented products, are dependent on quick responses and delivery on a just-in-time basis. Several empirical studies reveal that European clothing companies increasingly rely on quick market response, especially for fashion products with a really short lead-time, replenishment goods and/or small niche series garments (see Abecassis-Moedas, 2007; Evans and Smith, 2004). These types of products favour business models geared towards a short turnaround delivery with production being located in or close to the segments' main markets (OECD, 2004, p. 42). Nonetheless, it can still be an advantage to locate assembly processes for low-fashion, replenishment products in low-cost countries, in which the production cycle typically requires one year for completion. A production cycle in the fashion industry involves: definition of specifications; selection of textiles; negotiations with potential assemblers; final selection of the assembler; shipment of inputs; assembly; shipment of clothing products; preparation for retail; and display on retailers' shelves (*ibid*).

The textiles and clothing segments of the industry are closely linked as textiles provide the major input to the clothing industry. Therefore, the importance of the time factor in the clothing industry is equivalent to that in the textiles industry or is based on even shorter turnaround delivery requirements.

Due to the increased importance of a short turnaround time and temporal proximity to consumer markets, time, distance and flexibility all play increasingly important roles in investment and production decisions in the time-sensitive and fashion-oriented clothing market. In this market, the ability to switch the assembly process quickly is crucial in order to adapt rapidly to different designs, changing fashions and short production cycles. Furthermore, progressively shorter fashion cycles demand increasingly higher degrees of flexibility and speed from suppliers. Thus, the time factor plays a particularly important role for European companies' location decisions in the fashion segment of the clothing industry.

The fact that clothing is increasingly considered as a perishable good – where the time-to-market factor matters – is a disadvantage to producers in more remote locations (Eurostat, 2006). The increased importance of time-to-market represents an advantage in terms of location for the production of textiles and clothing in central and eastern European countries due to their proximity to the western European market. In contrast to Asian countries, delivery time is much shorter from eastern Europe. Thus, the importance of the time factor has geographical consequences, and short distance and speed of delivery are an advantage that Chinese competitors cannot match in the European market.

The time factor therefore plays an important role regarding the sector's competitiveness in central and eastern European countries, which traditionally have been favoured by companies due to lower wage levels compared with those in western European countries. This competitive advantage, however, is shrinking as wage levels are much lower in Asian countries. Another problem at the production locations in eastern European countries relates to the industry's low productivity: it is only about 20%–40% of that of the EU15 level and, for many product categories, it is below productivity levels in the industry in China (Heymann, 2005).

Focus on high value-added activities

The textiles and clothing industry has high value-added market segments where design and R&D represent important competitive factors. As mentioned earlier, the other response of the sector to globalisation and pressures for change centres on a move to higher value-added activities and production of value-added goods, such as innovative industrial textiles or niche products (Abecassis-Moedas, 2007; Eurostat, 2006). The importance of intensifying R&D and shifting towards high value-added and niche products holds true for the industry in both the western and eastern part of Europe.

To remain competitive, European companies in the textiles and clothing industry have adapted market and product strategies towards higher value-added activities. The development of such value-added activities has become a strategic priority of European companies. These activities are typically undertaken on location and involve elements such as developing higher value design-led clothing with more fashion content, value-added product innovation, as well as developing niche products, that is specialised products serving small segments of the market (Lane and Probert, 2004; Evans and Smith, 2004; Abecassis-Moedas, 2007). Moreover, the activities often kept in-house are design, sampling, production control and grading. In addition, many textiles and clothing companies have changed their position in the supply chain, moving from the position of manufacturer to that of merchant, which involves the retail, branding and provision of a so-called ‘full package’ service (see Abecassis-Moedas, 2007).

Human capital and skills play important roles in companies’ location decisions for high value-added activities. In this case, companies prefer to locate their business activities where the market is established and people with adequate skills can be found (*ibid*). For instance, in the high-quality fashion market, the competitive advantage of companies in this market segment is related to the ability to produce designs that capture consumer tastes and preferences, and – even better – influence such tastes and preferences, in addition to cost effectiveness. Human capital is used intensively in design and marketing in the high end of the fashion industry. Other market segments, such as sportswear, where both design and material technology are important and R&D intensive segments of the textiles industry play an important role. This is also the case concerning certain home furnishings, industrial textiles and technical textiles (Nordås, 2004).

In the European textiles industry, the importance of product innovation, specialisation and non-clothing applications of textiles, such as technical textiles, is growing. It is also the fastest growing market segment of all textile applications (OECD, 2004, p. 124). Technical textiles are considered to be those textile materials and products which are primarily manufactured for their technical performance properties rather than for their aesthetic or decorative characteristics. They are used in a wide range of applications, including furniture, health, security, transport, construction and the environment. The processes involved in the manufacture of technical textiles are human and capital intensive, and mainly located in developed countries.

In the clothing industry, pre-assembly is the stage in the production chain which is most likely to be completed in-house by major clothing companies. The reason is that innovations are mainly related to the pre-assembly phase of production, where technological developments have been more prominent than at the assembly stage. Overall, the clothing industry involves three basic operations: pre-assembly (design, grading, marking and cutting), assembly (sewing) and post-assembly (distribution, marketing and retail). All of these processes have different ratios in terms of capital and labour. Pre-assembly represents the most capital-intensive stage in the clothing sector where quality and precision are the most important production elements (Abernathy et al, 2004). However modern the production process may be, the assembly stage of the clothing sector is still a labour-intensive phase of the production process; therefore, it is the production stage which is most likely to be outsourced to lower-cost companies.

The core functions of companies servicing the high-end fashion market segment are largely located in developed countries and often in limited geographical areas or clusters within these countries. The Emilia-Romagna region in northern Italy represents one of the most prominent and prosperous textiles and clothing clusters in the world, while Italy as a whole is the second largest exporter of both textiles and clothing when including trade within the EU. However, this market segment has also seen a significant amount of production relocation and outsourcing to lower-cost producers, which were often located in geographical proximity to the major market (Navaretti et al, 2001).

Suppliers located close to consumer market

In some market segments of the clothing sector, retailers increasingly manage the supply chain of the textiles and clothing industry, having favoured suppliers located close to the major markets. In light of this development, central and eastern European countries have gained market shares in the EU.

This development is often named as the ‘Wal-Mart effect’, since it probably began with the establishment of shopping malls such as Wal-Mart in the United States of America in the 1970s. Wal-Mart insisted that suppliers implemented information technologies to exchange sales data, and adopted standards for product labelling and methods of material handling. Implementing these aspects in the supply chain ensured quick replenishment of apparel which, in turn, allowed the retailer to offer a broad variety of fashion clothes without holding a large inventory. This approach shifts the competitive advantage of suppliers from being mainly a question of production costs to becoming a question of costs in combination with lead time and flexibility (Nordås, 2004).

Thus, in the low to mid-priced textiles and clothing market, the retailer’s role has become increasingly prominent regarding the organisation of the supply chain. The retail market has become more concentrated, leaving more market power to multinational retailers. The latter thus acquired market strength not only in the consumer market but also, and perhaps more importantly, in terms of their purchasing power. In addition, high-volume discount retail chains have developed their own brands and now source their clothing directly from suppliers. Thus, in this major market segment characterised by mass production of low to mid-priced products with low fashion content, the increased power of retailers has favoured that suppliers are located close to the major markets. Together with lean time and flexibility, such changes have an impact on companies’ location decisions and imply a push towards locating activities close to main market segments.

Summary – location trends

In summary, the following factors influence companies’ location decisions in the European textiles and clothing industry:

- Cost levels, in particular different levels in wages, play an important role due to the fact that the textiles and clothing industry is highly labour intensive.
- Access to input factors, including skills and suppliers, is important for both the decision to outsource and the choice to strategically focus on added-value activities on location.
- Time and flexibility, especially in the fashion segment of the industry with increasingly shorter fashion cycles, are both highly influential; in this market segment of the textiles and clothing sector, the ability to switch the assembly process quickly is crucial to adapt to different designs, changing fashions and short production cycles.
- Short distance to main market segments is a particularly important element of a company’s location decision. The delivery on a just-in-time basis favours business models geared towards a short turnaround delivery with production located in or close to the segments’ main markets. Moreover, the ‘Wal Mart effect’ means that suppliers should be located close to the consumer markets.

Insights from four case studies

Specific location decisions differ from company to company, depending on the company’s strategy as well as the specific and expected future capability of their current location to meet the company’s demands for resources and providing access to customers. This section takes a closer look at the specific factors influencing the location decisions of four companies in the European textiles and clothing sector.

The four companies are:

- **Kvadrat,** a Danish company specialising in home textiles.
- **Farbolux Bilinski**, a Polish company specialising in the dying, bleaching, washing, tumbling, cutting and finishing of all sorts of textiles and fabrics.
- **Utenos Trikotazas**, a Lithuanian clothing manufacturing company.
- **Royal Ten Cate**, a Dutch company specialising in textiles technology, intelligent textiles and geotextiles.

The company case studies have been carried out as part of a sector study of the European textiles and clothing sector commissioned by the European Foundation for the Improvement of Living and Working Conditions.

Staying close to roots

The four companies studied are all rooted in their local communities and have strong historical ties to their current localities. One of the companies, Royal Ten Cate, is located around the towns of Almelo and Nijverdal in the eastern part of the Netherlands – its company records can be traced as far back as 1704. Historical and social ties are factors influencing the location decisions of these companies. For instance, the main reason for the headquarters of Kvadrat being located in the small city of Ebeltoft, away from large urban areas or vibrant creative environments, is due to the company's history, being owned by two families still living in Ebeltoft.

Historical and social ties, on the other hand, are a not a barrier to global expansion. Kvadrat is present in various cities in the world, including 10 subsidiary companies, mostly sales agencies, in various western European countries; two associated companies, Kvadrat Soft Cells in Denmark and Kvadrat Maharam Pty Ltd in Australia, and 13 showrooms located in large European cities as well as in Sydney, New York and Toronto.

Cutting costs and increasing competitiveness

There are many possible strategies for companies to increase competitiveness. For instance, Farbolux Bilinski has used automation and investment in state-of-the-art equipment to keep costs down and increase competitiveness. On the other hand, the relocation of activities to low-cost countries is often considered among the main strategic options for companies in labour-intensive sectors to cut costs and increase competitiveness.

Utenos Trikotazas in Lithuania is among those European companies in the sector that have chosen to relocate activities in order to cut manufacturing costs. 70% of the company's knitting and sewing activities take place in Ukraine, while the production unit in Lituania specialises in fabric production and the production of proto-types. The company has been considering transferring activities to Belarus, but current political problems have caused the company to have second thoughts about establishing a presence in this country.

There are also a range of other barriers to the relocation of activities. For instance, Farbolux Bilinski has decided not to move its production facilities outside Poland as relocating to low-cost countries (e.g. east Asia/China, Ukraine, Belarus, etc.) would involve too much investment and excess bureaucracy. Furthermore, companies that decide to move activities to other countries also face cultural and linguistic challenges as well as different business approaches. Such difficulties led Utenos Trikotazas to hire new managers to ensure that the management of the production site in Ukraine was in line with the management in Lithuania.

In general, the globalisation of supply chains also means that companies need to put extra efforts in supply chain mangement, corporate social responsibility and quality assurance to avoid corporate scandals (for instance, child workers and hazardous working conditions) and ensure that the relocation of activities does not pose a risk to a company's brand and the quality of its products.

Ensuring proximity to markets and quality

Proximity and quality are important factors for companies in the textiles and clothing sector. One example is Kvadrat, whose service concept is based on short-time delivery. Kvadrat does not have its own production facilities as such, but relies very much on high quality suppliers located in Europe due to quality requirements and short time delivery demands. According to the company, suppliers in Europe are often best in terms of producing quality textiles, but Kvadrat also cooperates with leading suppliers outside Europe depending on the specific products. For instance, the company cooperates with two supply companies in Japan who lead the field in micro fibres.

The importance of quality in location decicions is also explicit in the case of Farbolux Bilinski. The company's management does not consider the flexibility and quality of products coming from low-cost destinations in Ukraine, Belarus, and Asia/China to be of a sufficiently high standard and therefore relocating outside of Polish territory is not regarded as a viable solution.

The importance of proximity to markets is illustrated by Royal Ten Cate. The company aims to keep a large part of its activities close to its main markets – Europe and the US – and thus does not intend to scale down current production in the Netherlands. However, the company also seeks to broaden its market base and in this respect, it may become necessary to strengthen the Asian part of the organisation – both in terms of production facilities and marketing/distribution organisations.

Finding the necessary skills

Finally, the shortage of employees with specific skills is a factor when companies consider the location of activities. For Utenos Trikotazas, fabric production, dying and finishing are technology intensive activities that require specialised knowledge. Such knowledge is difficult to find in other countries, and this means that these activities will probably continue to be located in Lithuania. The knitting and sewing of clothing is both labour-intensive and cost-sensitive and it is currently very difficult to recruit qualified staff in Lithuania for these activities. At the same time, there is plenty of sewing staff available in Ukraine. These factors have been central to the company's decision to transfer a large share of the company's sewing and knitting activities to Ukraine.

Royal Ten Cate's strategy is to keep the production of highly technological and high value-added products in the Netherlands due to the skills of the workforce. With more commodity-like products, however, the production is moved outside Europe, typically to east Asia. This is a continual process, whereby innovative products, because of technological development, become commodities and hence the specific production is moved eastwards to low-cost countries.

Summary

On the basis of the four cases, it is possible to identify some very specific factors that seem to affect location decisions in the textiles and clothing sector. These factors include:

- historical and social roots
- cost levels
- culture and language
- political stability
- regulation

- proximity to markets and to quality suppliers
- availability of employees with specific skills

The relative importance of the different factors may vary depending on company characteristics and the company management's assessments of different locations, as illustrated by the different location strategies of the four companies.

Conclusion

Location strategies may preserve the status quo (i.e. keeping activities where they are currently located), but often such strategies result in the relocation of all or some activities to another country. Such relocation of activities could have a significant impact on the employment and skills needs in the sending country as well as the receiving country, for instance by increasing the demand for high-skilled employees in the sending country, to the detriment of low-skilled employees, while on the other hand increasing the demand for low-skilled employees in the receiving country. In cases where a company decides to terminate all activities in the sending country, the employees and the local community in the sending country risk experiencing a rise in unemployment levels and a loss of wellbeing.

In order to deal with the effects of relocation and avoid increasing unemployment levels, it will be necessary to have in place a system that can support the upgrading of skills of a company's workforce and the re-training of redundant employees for new job functions or jobs in other sectors. Other support measures for redundant employees could include support for business start-ups and helping employees find a new job. In addition, companies in the textiles and clothing sector that decide to relocate activities need to ensure that the activities in the receiving country adhere to international standards and agreements, such as those relating to working conditions, the use of chemicals and the use of child labour.

References

All links accessed on 19 May 2008.

Abecassis-Moedas, C., 'Globalisation and regionalisation in the clothing industry: survival strategies for UK firms', *International Journal of Entrepreneurship and Small Business*, Vol. 4., No. 3, 2007, pp. 291–304.

Abernathy, F. H., Dunlop, J. T., Hammond, J. H. and Weil, D., 'Globalisation in the apparel and textiles industries', in Kenney, M. and Florida, R., *Locating global advantage. Industry dynamics in the international economy*, Stanford, Stanford Business Books, 2004, pp. 23–51.

Ecorys Research and Consulting, 'The Dutch market for clothing', *Economy and competitiveness*, 2005, available online at: **http://www.liaa.gov.lv/uploaded_files/Niderlande_apgerbs.pdf**.

Eurostat, 'Sectoral analysis of EU manufacturing activities – Textiles, clothing, leather and footwear', in *European business – Facts and figures*, Luxembourg, Office for Official Publications of the European Communities, 2006, available online at:
http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-BW-06-001-03/EN/KS-BW-06-001-03-EN.PDF.

Evans, Y. and Smith, A., *Creative destruction: de-industrialisation or a fashion capital for the creative industries in London?*, Paper given at the Conference 'Global apparel/Changing Europe: Comparative perspectives on trade liberalisation and production networks in the new European clothing industry', University of North Carolina, 15–16 October 2004.

Heymann, E., Deutsche Bank Research, 'Textiles and clothing industry in eastern Europe: pressure following expiry of the quota system', in *EU Monitor*, No. 26, 13 July 2005, available online at: **http://129.35.230.60/PROD/DBR_INTERNET_DE-PROD/PROD0000000000189216.PDF**.

Lane, C. and Probert, J., 'Between the global and the local: a comparison of the British and the German clothing industry', *ESRC Centre for Business Research*, Working Paper No. 283, Cambridge, University of Cambridge, March 2004, available online at: **http://www.cbr.cam.ac.uk/pdf/wp283.pdf**.

Millard, J., *Regional development and cohesion in the European Information Society – a review*, Working paper prepared as part of the 'Best e-Europe Practice' (BEEP) research project under the IST 5th Framework Programme, 2002.

Millard, J., *Regional development lessons from 100 European case studies*, Published as part of BEEP final report, 2004, available online at: **http://www.beepknowledgesystem.org**

Mills, J., Schmitz, J. and Frizelle, G., 'A strategic review of "supply networks"', *International Journal of Operations and Production Management*, Vol. 24, No. 10, pp. 1012–1037.

Navaretti, G.B., Falzoni, A., and Turrini, A., 'The decision to invest in a low-wage country: Evidence from Italian textiles and clothing multinationals', *Journal of International Trade and Economic Development*, Vol. 10, No. 4, pp. 451–470.

Nordås, H. K., *The global textile and clothing industry post the Agreement on textiles and clothing*, Discussion Paper No. 5, Geneva, World Trade Organization (WTO), 2004, available online at: **http://www.wto.org/english/res_e/booksp_e/discussion_papers5_e.pdf**.

Organisation for Economic Co-operation and Development (OECD), *A new world map in textiles and clothing – Adjusting to change*, Paris, OECD, 2004, available online at: **http://www.oecd.org/document/63/0,2340,en_2649_201185_34035455_1_1_1_1,00.html**.

OECD, *OECD Employment Outlook*, Paris, OECD, 2004b, available online at: **http://www.oecd.org/document/62/0,2340,en_2649_201185_31935102_1_1_1_1,00.html**.

OECD, *Offshoring and employment: Trends and impacts*, Paris, OECD, 2007, available online at: **http://www.oecd.org/document/22/0,3343,en_2649_37461_38743126_1_1_1_37461,00.html**.

Porter, M.E., *The comparative advantage of nations*, London, Macmillan, 1990.

Sturgeon, T., *How do we define value chains and production networks?*, MIT IPC Globalisation Working Paper 00-010, Massachusetts Institute of Technology (MIT), Industrial Performance Centre (IPC), April 2001.

Stig Yding Sørensen, Danish Technological Institute (DTI)

EF/08/48/EN