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The global leather value chain: the industries, the main actors and prospects for upgrading in LDCs

Olga Memedovic

United Nations Industrial Development Organization (UNIDO),
Vienna International Centre,
A-1400 Vienna, Austria
E-mail: o.memedovic@unido.org

Heikki Mattila*

Institute of Fibre Materials Science,
Tampere University of Technology, Finland
E-mail: heikki.r.mattila@tut.fi

*Corresponding author

Abstract: Value chain and the ability to collect and preserve the pelts. Essentially, the leather industry is built on meat production worldwide. Human skills, equipment and chemicals are needed for the production of top quality leather. In the footwear, leather garments and goods sector, additional attributes are required like high manufacturing skills, design know-how, computer-aided design systems, branding and marketing. Environmental policy instruments with respect to process standards, economic instruments and eco-labelling schemes received more attention in the recent past and might although these measures are intended to protect the environment, support trade and reduce unfair competition, they might at first still be a burden to developing countries, because financial and managerial skills are required for successful implementation and monitoring of these standards. Trade barriers still exist in both EU and US. Growth and upgrading are real possibilities for firms in the global leather value chain. China's development from practically zero to the leading footwear supplier to the United States and the EU in 25 years is an example of this. This paper provides policy recommendations for developing and least developed countries, and for international organisations.

Keywords: leather industry; footwear; global value chain; LDCs; least developed countries; developing countries; industrial upgrading.

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Biographical notes: Dr. Olga Memedovic is UNIDO Staff Member at the Research and Statistics Branch. She holds a PhD (Economics) from the Erasmus University Rotterdam, The Netherlands. She has led various research projects, among them are the *EU–LDC Trade and Capital Relations*, *Global Value Chains and Production Networks: Prospect for Upgrading by Developing Countries* and *Public Goods for Economic Development*.

Heikki Mattila is a Professor of Textile Technology at Tampere University of Technology, Tampere Finland. Prior to his academic career, he worked for 20 years as an International Consultant to textile, clothing and leather goods

industries and trade with special focus on international business ventures, feasibility studies, appraisals, industry sector studies and strategic planning. In 1999, he gained PhD degree by defending his theses 'Merchandising Strategies and Retail Performance for Seasonal Fashion Products'. His current research focuses on supply chain management and global value chains for textiles, apparel and leather. Main drivers behind globalisation, critical success factors throughout the whole value chain, socio-economic impacts in developed countries and upgrading possibilities for the developing world are the central points of interest. Intelligent textiles and garments are the second research area for him. His one of the recent publications is *Intelligent Textiles and Clothing*, 2006.

1 Introduction

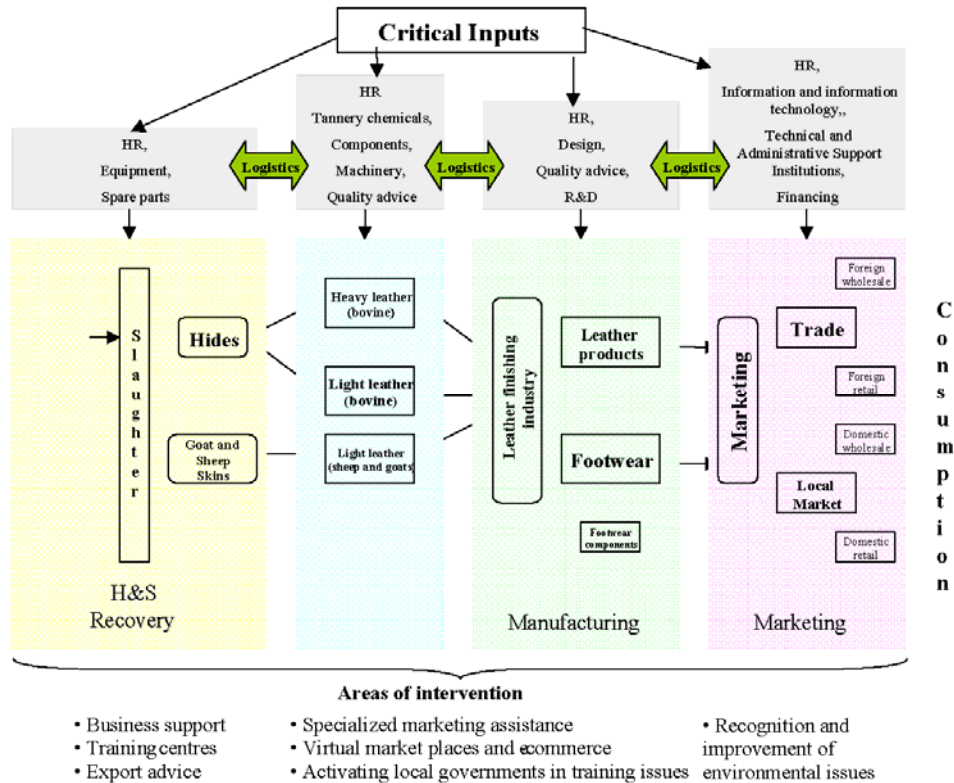
The global leather value chain starts with animal husbandry and ends with the manufacture of leather goods. Bovine hides, sheep and goatskins are the principal hides used and are processed in tanneries before becoming leather footwear, garments and accessories like travel bags and belts. Leather is also used for technical products and upholstery.

The leather value chain, as shown in Figure 1, includes the following sequence of activities. It starts with the recovery of hides and skins from slaughtered animals on farms and in slaughterhouses. This is followed by the conversion of hides and skins into leather in tanneries. This process usually requires substantial investment in equipment. The tanning stage is then followed by the manufacture of leather products, which is often carried out in small, labour-intensive workshops with less need for substantial investment in equipment, or in larger capital-intensive factories. The marketing of intermediate and end products at different stages in the chain is the key to success in the modern leather products business. At the global level it is tightly controlled by international marketing agents who have both market knowledge and a wide network of sales channels that allow them to manage the complex supply chain mechanism, contracting production, providing finance and serving the customer on time (Magretta, 1998; Schmel, 1998; Magretta, 2002).¹

Other industries feed-in to the leather industry at different stages of production. For example, tanning requires substantial inputs from the chemical industry. At the higher end of the value chain, design and marketing are essential to compete in domestic, regional and global markets. However, these activities tend to be controlled by lead firms in the chain, meaning that tanners and leather producers in developing countries have a high degree of dependency and only limited prospects for upgrading. Quantity and quality related problems dominate the first production stage, whereas management and design skills dominate the higher value-added stages.

Producers in developing countries and Least Developed Countries (LDCs) often lack the essential know-how, managerial skills and the financial means necessary to identify a target market for their products. Trade and technical barriers also reduce their chances of accessing regional and global markets by setting standards and norms to which it is hard to adhere. Quality can be another barrier for developing countries. In many Sub-Saharan African countries, for instance, practices and customs do not allow for commercial livestock rearing and can damage hides and skins. Finally, inadequate infrastructure and unstable political environments hinder upgrading.

Figure 1 Leather value chain (see online version for colours)



Source: Memedovic (2005b)

Section 2 looks at the structure of the leather value chain, on the sub-industries that are of importance to the leather industry, such as livestock rearing, meat production, tanning and the leather products industry, the role of chemical industry, environmental considerations and market prices. The Section 3 discusses the upgrading challenges in the the leather value chain. Section 4 deals with the process of upgrading in the leather industry. Section 5 identifies main actors and the governance issues. Section 6 focuses on the footwear industry, its main trends and actors. Section 7 analyses the cost build-up and value added throughout the chain. Section eight concludes with and highlights some policy recommendations for developing and LDCs.

2 Structure of the leather value chain

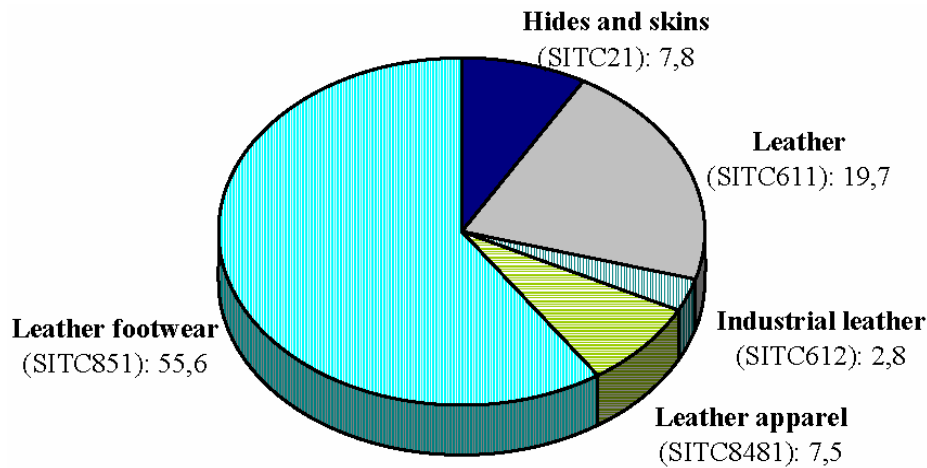
The global leather value chain starts at a farm, usually in a developing country, and ends with consumer or industrial products. The Food and Agriculture Organisation (FAO) classifies hides and skins into 14 main categories, with the principal traded categories being bovine hides, sheep and goatskins.² In 2004, the International Council of Tanners estimated that bovine hides accounted for 65% of global hide production, sheep and goatskins for 24% and pigskins for 11%. The footwear industry was the main user of

leather with 55% of global consumption, followed by the leather clothing industry with 15%. The furniture, automotive and transport industries used another 20% for upholstery and other industries consumed the remaining 10%.

2.1 A US\$90 billion business

According to statistics compiled from COMTRADE, the United Nations Statistics Division's database, the global export value of raw hides and skins was worth US\$7.8 billion in 2004. The export value of all types of leather, finished and unfinished, was US\$20 billion. Exports of bovine and equine leather were US\$15.8 billion, 21% of which were tanned but not further prepared while 79% were fully finished. Exports of sheep leather were worth US\$1.2 billion, with 85% fully finished, and those of goat leather were US\$0.8 billion with 69% fully finished. The export value of leather apparel, i.e. clothing, head gear, gloves, belts and accessories, was US\$7.5 billion and the global export value of leather footwear was US\$55.6 billion. The total value of the leather mix in exports in 2004 was around US\$90 billion (see Figure 2).

Figure 2 Export trade of the global leather mix, 2004 (US\$ billion) (see online version for colours)



Source: ITC Leatherline on the basis of United Nations Statistical Division's COMTRADE database

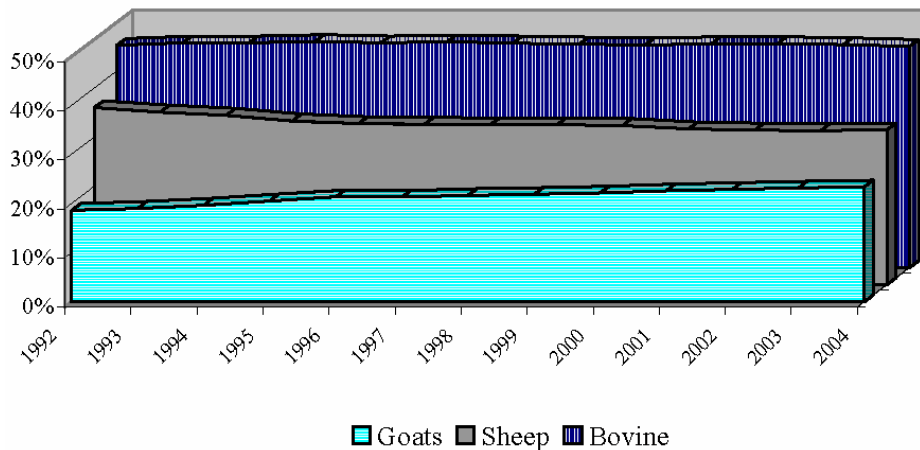
The global leather value chain is complex. It includes animal husbandry, industrial and assembly processes and branded marketing, while semi-finished and finished products are sold and exported between companies and countries. One peculiarity of this value chain is its dependence on another value chain, animal production. In other words, its main input relies on animal production rates and the ability to collect and preserve the pelts. Essentially, the leather industry is built on meat production worldwide.

2.2 Livestock and meat production

Total numbers of bovine animals have been relatively constant in recent years with only a slight increase in the early 1990s (Figure 3), with the share of bovine animals in world animal population roughly 45% of the total. Around the same time, i.e. the beginning of

the 1990s, the sheep and lamb populations started to decrease slightly while goat and kid populations worldwide showed a corresponding increase. In 2004, bovine animals accounted for 45% of the world animal population, sheep and lambs for 32% and goats and kids for 23%.

Figure 3 Share of bovine, sheep and goat animal populations of total livestock, 1992-2004
(see online version for colours)



Source: FAO (2005b)

Livestock numbers vary substantially between developing and developed countries, mainly due to the importance of agriculture and other non-profit factors in a country's overall production portfolio. According to the FAO, in 2004 there were 1.5 billion head of bovine animals worldwide, 79% of which were in developing countries and 21% in developed countries.³ A more equal distribution pattern can be seen in the case of sheep, where developing countries possess 66% of total livestock, but in the case of goats developing countries have 96% of the total. The largest numbers of livestock are found in Asia, Africa and Latin America.

There is a general trend for livestock numbers and slaughter rates to correlate and comparison of the transportation costs of live animals and meat supports this assumption. The exact numbers of slaughters per country are determined by the demand for milk and wool, meat prices and the prevalence of animal diseases such as Bovine Spongiform Encephalopathy (BSE) and foot and mouth disease (FMD), which can disrupt national and international trade flows.

In 2004, China was the world's largest producer of bovine meat, with 15% of total production, followed by India and Brazil (with 11% each) as illustrated by Table 1. Although India's cattle population accounted for 19% of world's total, for religious reasons its share of meat production was only 11%.

Table 1 Comparison of livestock and meat production, 2004 (% of world total)

<i>Bovine animal livestock</i>	
India	19
Brazil	13
China	9
United States	6
Argentina	3
<i>Bovine meat production</i>	
China	15
India	11
Brazil	11
United States	10
Argentina	4
<i>Ovine animal livestock</i>	
China	15
Australia	6
India	4
Iran	4
Sudan	3
New Zealand	3
Turkey	2
Pakistan	2
<i>Ovine meat production</i>	
China	28
India	6
New Zealand	5
Australia	5
Spain	4
Iran	4
Turkey	3
UK	3

Source: FAO (2005)

2.3 Production of hides and skins

Unlike meat production, the actual quantity of hides and skins cannot be derived from animal slaughter rates alone. There are three reasons for this.⁴ Hides and skins may also be recovered from fallen animals, for which no statistics are available. Considerable wastage can occur through the non-collection of hides and skins. Finally, there may be losses in the collection of hides and skins due to inadequate information, poor preservation and handling, missing grading techniques, defective processing and putrefaction.

There are big variations between countries in rawhide production in terms of hide collection rates and weight in thousands of tons. In 2004, Italy's collection rate for raw

bovine hides was around 62% while that of Sudan was only 7% (Table 2). The collection rate for most developing countries, such as India, Brazil, Pakistan, South Africa and other African countries, was below the global average of 22%. This is partly the result of poor farming methods, quality problems and poor infrastructure.

Table 2 Bovine hide production and collection rates, 2004

<i>Country</i>	<i>Cattle</i>	<i>Output</i>	<i>Weight</i>	<i>Collection</i>
	<i>'000</i>	<i>Mn pcs</i>	<i>'000 tons</i>	<i>%</i>
India	283,200	38.0	415.0	13.4
USA	94,882	33.8	956.9	35.6
China	128,825	51.0	793.2	39.6
Brazil	193,201	36.5	730.0	18.9
Russia	24,951	11.6	237.5	46.5
Argentina	50,768	12.6	244.8	24.8
Pakistan	49,300	8.6	86.0	17.4
Australia	26,420	8.8	175.6	33.3
Mexico	31,477	7.5	136.0	23.8
Ukraine	7,712	4.8	104.5	62.2
Italy	6,987	4.3	124.7	61.5
Egypt	7550	2.9	76.3	38.4
Sudan	38,325	2.7	45.6	7.0
South Africa	13,512	2.6	45.6	19.2
Other Africa	179,080	21.5	268.1	12.0
Other countries	375,076	86.1	1578.5	23.0
Total	1,511,266	333.3	6018.3	22.1

Source: FAO (2005)

Collection rates for sheep and goatskins are roughly double those for bovine hides but there are variations from country to country. Sudan's collection rate for sheep and goatskins was around 19% and 23% respectively in 2004 while Pakistan's was 40% and 47%.

The animal production industry not only provides the necessary raw input into the production of hides and skins, it also plays a vital role in determining their quality. According to Leach (2002), deficiencies attributed to husbandry methods include (1) mechanical injuries such as brand marks, (2) defects caused by diseases destroying the tissue, (3) corrosion damages and, lastly, (4) parasite infections. Other damage can occur during the slaughter process, such as (5) flaying defects and (6) curing faults. Unlike developing countries, industrialised countries have established standards for husbandry, animal feeding, transportation conditions and slaughter methods to ensure the production of high quality meat and acceptable animal living conditions. This in turn provides excellent conditions for both a high quantity and quality collection of hides and skins.

The level of technology, quality and value-added is reflected in price. Domestic slaughter with rudimentary tools, which is common in most developing countries and especially in Africa, together with poor animal husbandry and post slaughter defects, damages hides and skins (Salazar de Buckle, 2002). The level of technology and skill needed for pickling or wet blue tanning is not as high as it is for finished leather. Human

skills, equipment and chemicals are needed for the production of top quality leather, such as the Italians produce. In the footwear, leather garments and goods sector additional attributes are required. Good quality materials, modern production technology, efficient and quality-conscious production methods, high manufacturing skills, design know-how, CAD (computer-aided design) systems and above all branding all contribute to higher added value.

The FAO estimates that the fact that losses for African countries in 1998 exceeded US\$800 million is largely attributable to inadequate husbandry and slaughter techniques, such as breeds, pastoral husbandry, nutrition, calf mortality, scratches, brands and tick bites. [Jabbar et al. \(2002\)](#) also consider that breeds and pastoral husbandry are the major problems in African countries, causing poor quality of hides and skins (see Table 3). Nor do cultural patterns support the commercialisation of livestock rearing, thus further reducing the supply of hides and skins. Poor infrastructure and a lack of veterinary disease controls also have major downward effects on hides and skins for commercial usage. Better skills and management, and information on best practices could prevent these defects.

Table 3 Relative importance of the different factors affecting the quality of hides and skins in the four African case studies

<i>Country and product</i>		<i>Level of significance of the problem by main category</i>		
		<i>Animal husbandry defects e.g. branding</i>	<i>Slaughterhouse defects, e.g. flay cuts</i>	<i>Post slaughter defects e.g. putrefaction</i>
Tanzania	Hides	****	****	****
	Skins	*	****	****
Sudan	Hides	****	****	****
	Skins	**	**	**
Senegal	Hides	****	****	****
	Skins	n/a	***	***
Zimbabwe	Hides	*	*	*
	Skins	*	*	*

****, very high; ***, high; **, moderate; *, low; n/a, information not available.

Source: [Jabbar et al. \(2002\)](#)

2.4 *The tanning industry*

The production of leather is achieved by tanning raw hides and skins. This allows an irreversible stabilisation of the skin substance, which would otherwise deteriorate.⁵ Three different methods of tanning can be used and a combination of the three serves as a fourth.

- Vegetable tanning (oldest method used to produce, for example, sole leather)
- Mineral tanning (where chrome tanning is used in 80% of all cases)
- Others (e.g. oil tanning)
- Combination of the three (in order to achieve desired leather properties)

The tanning industries' production processes can be divided into four main categories (EC, 2004): hide and skin storage and beam house operations; tannery operations; post-tanning operations; and finishing operations. The transformation of hides and skins into leather is capital intensive and based on high-tech processes and know-how. Some operators perform only part of the production process (semi-processed), whereas others are involved in the entire process of transforming rawhides into finished leather (EC, 2001).

2.5 The role of the chemical industry

The "big five" chemical companies, namely BASF, Bayer, Clariant, Stahl, and TFL which together account for about 40% of the market, are the tanning industry's main suppliers.⁶ According to the *Chemical and Engineering News* (2004), the remaining market share is held by around 200 other suppliers (often local) with sales of between US\$10 million and US\$100 million per year. With the growing number of tanneries in Asia, particularly in China, many chemical companies are moving their leather research centres there. The leading companies are trying to increase the market share of their existing products as well as increase their product range through acquisition.

Entry barriers are low, thus making diversification of products and direct market presence essential. As new environmental standards and regulations are put in place worldwide, it is the chemical industry that is expected to provide solutions rather than the tanning industry. Although this means that chemical manufacturers have to be close to their customers to be able to monitor changing requirements it also exemplifies the tanning industry's dependency on others.

2.6 Effluents and pollution

Tanning produces effluents, although the levels depend on the raw material processed, product specifications and quality of the final product as well as the tanning method. The highest proportion of effluents is solid waste, amounting to between 450 and 730 kg per ton of rawhide input. The water used during the different processes is contaminated with chemicals such as chrome while the use of organic solvents causes air pollution.

The effluent load produced by the tanning industry is high, but new effluent treatment procedures are available, and have been shown to be effective in decreasing pollution levels. In the course of a regional programme conducted by UNIDO in Tamil Nadu State (India) from 1991 to 1997, different pollution control methods were tested and cleaner tanning technologies and effluent treatment facilities were installed.

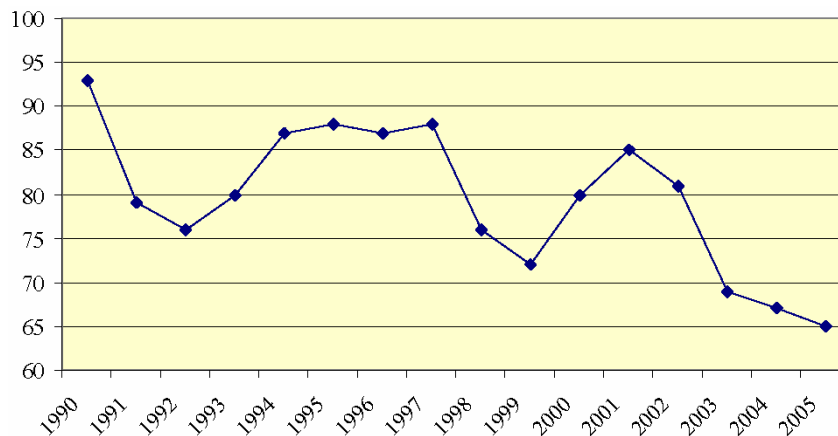
Environmental policy instruments with respect to process standards, economic instruments and eco-labelling schemes have received more attention in the recent past and might positively influence environmental protection measures. For instance, the European Union's eco-label, the Flower, was introduced in 1992. The European Eco-Labelling Board (EUEB) administers it. The Flower stands for a voluntary certification scheme that allows consumers to identify products that meet environmental regulations. Products carrying the Flower are checked in relation to ecological, durability, and packaging criteria by independent bodies. Although the initiative was widely recognised and appreciated it has not yet made its entrance into the market at large⁷. In 2006, only 11 European footwear companies carry the eco-label: nine of them are Italian. Although these measures are intended to protect the environment, support trade and reduce unfair

competition, they might at first still be a burden to developing countries, because financial and managerial skills are required for successful implementation and monitoring of these standards.

2.7 Market prices

The decline in global hides and skins prices that started in 2002 continued in 2005 (Figure 4). This is attributed to a combination of several factors. On the demand side, the weak global economic situation of earlier years affected consumer confidence, resulting in a decline in demand for leather and leather products. On the supply side, lower margins on leather and leather products made tanners less willing to offer higher prices for the raw materials. This is due to the fact that tanners, shoe and leather goods manufacturers were faced with increased costs of production emanating from higher prices for chemicals, energy and freight. The manufacturers, on the other hand, are price takers from the major international retail outlets. The weakness of the United States dollar vis-à-vis the euro continued to erode the profitability of the European leather producers, who buy their raw materials in euros and sell their products in dollars.

Figure 4 US Hides Prices (Chicago) 1990–2005, US cents/lb (see online version for colours)



Source: FAO (2006)

The demand for leather and leather products is elastic and generally fluctuates with the global economic performance, which has slowed. The combination of declining prices and a stagnation in trade has led to a decline in export earnings.

3 Upgrading challenges

Upgrading in the leather value chain should be understood as moving to activities that offer higher survival opportunities and higher returns. Higher returns can be obtained either by shifting production towards higher priced products or by acquiring new functions in the value chain like participating in design and marketing. Gereffi (1999) defines industrial upgrading as a process of improving the ability of a firm to be more

profitable, more technologically sophisticated, and to serve more capital- and technology-intensive market niches. Gereffi lists four levels of industrial upgrading:

- 1 *within factories* – moving from cheap to expensive items, from simple to complex products and from small to large orders
- 2 *within inter-firm enterprise networks* – moving from mass production of standardised goods to flexible production of differentiated products
- 3 *within local or national economies* – moving from the assembly of imported inputs to Original Equipment Manufacturing (OEM) and Original Brand Manufacturing (OBM) production requiring forward and backward linkages at local and national level
- 4 *within regions* – moving from inter-regional trade to intra-regional trade in raw material supply, production, distribution and consumption.

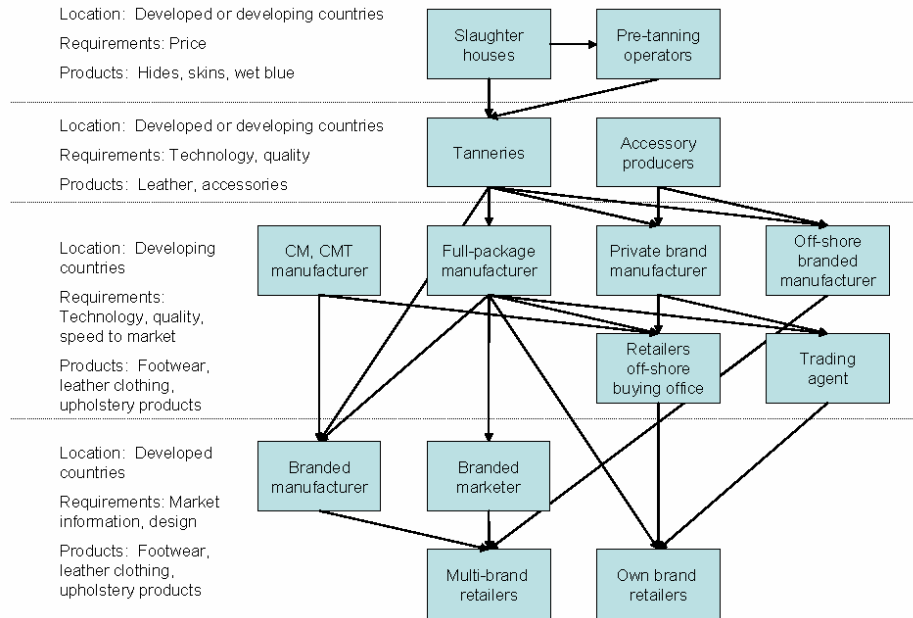
The opportunities for upgrading depend on the quality of information that is provided to the manufacturer, and as a consequence the type and amount of learning that the local producer receives from the marketers. In the simplest form of outsourcing, the information received by the local producer is relevant only to the particular production segment of the value chain where he is placed.

Branded manufacturers, branded marketers, multi-brand retailers and own-brand retailers use different sourcing channels (Figure 5).

Multi-brand retailers buy their products from branded manufacturers and marketers, who, because of their design ability and technical knowledge, rely mainly on CM, CMT and full-package suppliers. Own brand retailers have offshore sourcing offices or work through buying agents, who often prefer to keep the manufacturers away from market information and direct market entry. The road from selling of production capacity to own brand sales is, however, long and requires upgraded management skills and financing. At the same time there is tough competition in the developed markets with an oversupply of products and brands and numerous firms fighting for market share.

Marketers and retailers are also interested in the upgrading of their suppliers; they need producers able to deliver all the parts needed for the finished product and on time. This means that they will seek more advanced, 'full package' or OEM companies (see Table 4). These companies may sub-contract some parts of production to local firms. OEM companies learn then how to organise production networks and the marketing aspects of the business. After succeeding, they may become Private Brand and, later, OBM businesses. Upgrading by leather clothing manufacturers in developing countries requires that rather than selling just production capacity (CM or CMT) the firms become full-package providers and later develop private label and own brand (OBM). Understanding the market is the key to this upgrading. From the operational and financial point of view, requirements for functional upgrading at the regional and global levels can be summarised as seen in Figure 6.

Figure 5 Trading linkages throughout the leather value chain (see online version for colours)

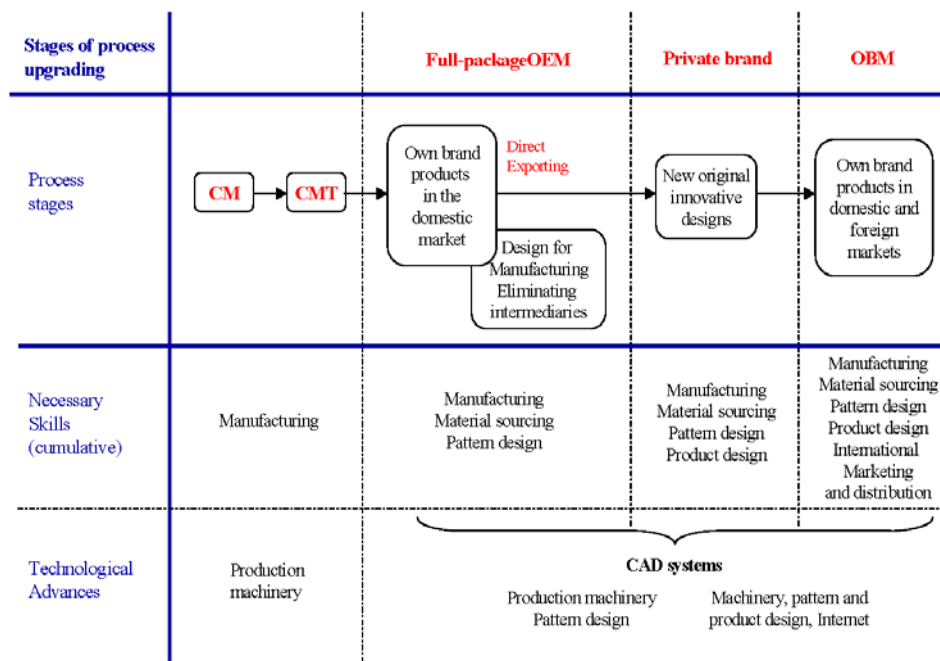


Source: Mattila (2005): buyer interviews done in 2003–2004

Table 4 Supply chain terminology

<i>Elements</i>	<i>Characteristics</i>
Cutting and Manufacturing (CM) and Cutting, Manufacturing and Trimmings (CMT)	The supplier receives all materials and instructions from the buyer and produces and delivers the products under the customer's brand name. The supplier does not finance purchase of materials and is usually paid at delivery. In CMT the supplier buys all the basic trimmings, such as sewing thread, buttons etc, but not the main materials
OEM or full-package suppliers	A full-package supplier buys all materials and produces the products according to the buyer's specifications and delivers them under the customer's brand
Private brand (label)	The supplier actually designs a collection of products and selects all materials. The buyer selects the products directly from the supplier's collection, with or without slight modifications, but the products are supplied under the buyer's brand name.
OBM	The supplier is the manufacturer of its own brand in the domestic and/or international markets. International marketing and distributions schemes are needed. The products are produced totally under the manufacturer's original brand name

Sources: Adapted from Bazan and Navas-Alemán (2001) and Mattila's (2005) buyer interviews in 2003-2004

Figure 6 Process upgrading in the leather industry (see online version for colours)

Sources: Based on Duruiz and Yentruck (1988), Hobday (1995), Gereffi (1999), Yoruk (2001), Mattila (2004)

3.1 Governance within the global leather value chain

There have been a number of developments in the governance of the global leather value chain in the last two decades

- there seems to be a move from captive to relational value chains, as the lead firms look for supply partners with capabilities in technical know-how, flexibility and in delivery speed to the market
- intermediaries, either buying agents or a buyer's own sourcing offices, exercise tight supply chain governance through symbolic and convening power, which cuts developing world manufacturers off from market information. By keeping the suppliers and customers apart these intermediaries aim to justify their position in the chain
- branded manufacturers in the developed world are becoming branded marketers. They relocate their production to low cost countries, preferring CM, CMT or full-package sourcing as they still have the technical know-how to produce detailed making instructions
- buyers in general are moving from CM and CMT to full-package (OEM) and select suppliers, which have technical know-how and access to the financial means to buy materials.⁸ Most manufacturers in the LDCs do not meet such requirements and are likely to be cut off from the supply chain

- retailers and branded marketers want to replace buying agents with their own offshore buying offices for cost reasons. This does not, however, make supply chain governance any easier for the manufacturer
- the share of brand retailers' sales is increasing, making it more difficult for branded manufacturers in both developed and developing countries to enter the market
- global retailers, branded marketers and branded manufacturers exercise tight governance of the supply chain through their superior design and market information, making upgrading difficult for manufacturers

4 Process of upgrading in the leather industry

4.1 From CM/CMT to full-package or OEM

In OEM, producers must have the capability to find all the components needed for the finished product. These so-called 'full package' or OEM companies subcontract the production of parts to local firms that are able to meet orders on time and in the desired quantities and quality. A full-package service provider must be able to purchase materials according to customer specifications. It therefore needs contacts with both local and international suppliers. In China, for example, accessories and the main materials in the case of special finishes may be imported if not available locally but this requires expertise and the ability to travel.

Mechanisms that enable firms to upgrade to full-package suppliers are very much related to the ability of producers to connect with the diverse firms that operate in buyer-driven value chains. The best opportunities for upgrading may be found in quality-driven market segments, where there is a low concentration of buyers. Unlike CM or CMT producers, a full-package producer must also have access to financing for the purchase of materials, a CAD system and staff with technical expertise.

Branded retailers and branded marketers prefer to have partners who are full-package suppliers but they must meet quality and production requirements. Although this is a good learning experience, a supplier may become dependent on a few or even one customer. On the other hand, a full-package provider does have some access to market information.

4.2 From full-package suppliers (OEM) to private brand

A private brand producer must have full design capacity including design know-how. Again designers need to travel internationally in order to keep abreast of the latest trends. A full CAD system for both aesthetic and technical design is needed. Collection management and marketing skills are also required. Further financing is needed in order to cover the cost of sample materials and sample production.

4.3 From private brand to own brand manufacturing (OBM)

An OEM becomes an OBM company by establishing forward linkages with developed country markets, where the largest profits are made in the buyer-driven value chains. An OEM combines its production with the design and sale of its own brand names and turns into an OBM operator. This has been the case for Japanese firms and for some

companies in NIEs, which manage their OBM operations for local and foreign markets, and for some firms belonging to the Sinos Valley footwear cluster in Brazil.

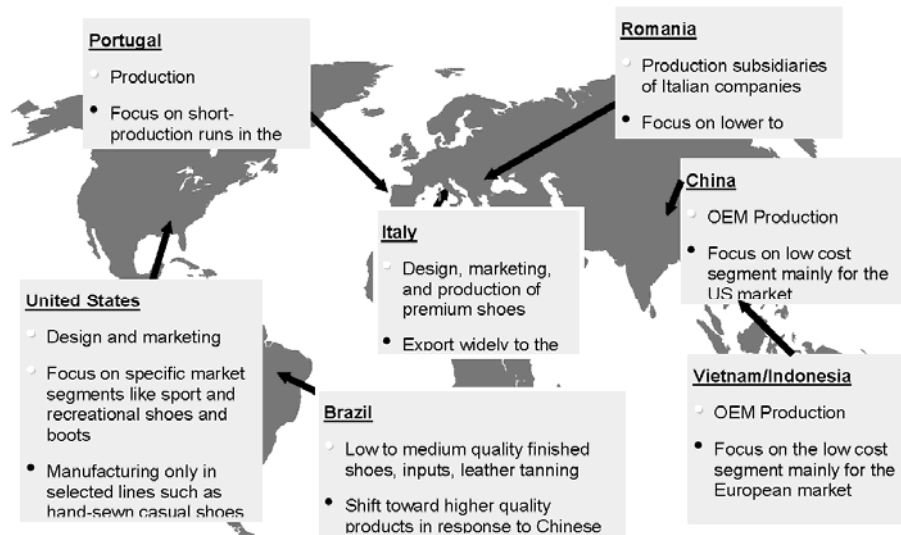
Branded manufacturers need a thorough understanding of the market, i.e. potential customers, terms of delivery and payment, purchase and delivery schedules, standards and quality requirements as they have full responsibility for products and deliveries. Further financing is needed as all materials are purchased and paid for in advance. Know-how and financing for sales promotion and brand development is also necessary. Although the usual procedure should be to create and introduce a brand to the domestic market first, developing country producers often fail to do this. Developing own brand for either domestic or international market requires both time and money and the risks are high.

5 Principal actors in the leather value chain

5.1 Local clusters and global players

Clustering is common in footwear, leather goods and leather apparel production (see Figure 7 for the leading footwear clusters). There are countries and regions within countries that specialise in particular products. In India, for example, leather parks have been set up in Tamil Nadu and Agra. Bazan and Navas-Alemán (2001) looked at whether different types of supply chain governance affect the upgrading possibilities of local producers, with a special focus on the leather footwear-producing cluster in Sinos Valley, Brazil. They concluded that while different methods of chain governance (symbolic power, knowledge governance, convening power, etc.) are used by different buyers, quasi-hierarchical chains, like those in the United States and Europe, encourage producers to upgrade to higher value added production segments. But not, however, beyond that as buyers want full control over design, marketing and the supply chain.

Figure 7 Leading footwear clusters



The overall global leather value chain is made up of local clusters and global players. A local cluster may consist of farms, slaughterhouses, tanneries and manufacturers, which do not usually market their products under their own brands. The global players are branded marketers, like Adidas and Nike, which design products under their brands and sell them to retailers, and retail chains like Marks & Spencer and J C Penny, which design their own products and sell them in their own retail outlets. Branded manufacturers may also sell branded products.

5.2 Suppliers may have little or no contact with the end customer

Suppliers of footwear and leather clothing in developing countries often work through buying agents or sourcing offices and may have no contact with the customer. This makes it difficult for them to understand how the global value chain works and what the prospects for upgrading in these chains are. Bazan and Navas-Alemán (2001) classify buyers by three types of international sourcing, i.e. direct, indirect and exclusive (Table 5). As with the apparel and garments value chain, buyers in leather apparel and garments can also be classified as retailers, branded marketers and branded manufacturers (Gereffi and Memedovic, 2003; Memedovic 2005a). Retail chains often depend on intermediaries, which usually do not have the technical expertise to make shoes or leather garments. Intermediaries may be buying agents, trading companies or branded manufacturers. Based on buyer interviews carried out by Mattila in 2003-2004, it appears that there is a trend among retail chains towards developing technical expertise in their own organisations, either at headquarters or the offshore buying office. In this way, they can eliminate all outside intermediaries.

Table 5 International leather apparel sourcing methods

<i>Sourcing methods</i>	<i>Characteristics</i>
Direct sourcing	Sourcing is carried out directly in the supplying country where the company has set up a sourcing office and employs a local team of buyers. The supplier has an indirect contact with the end customer, but does not have direct access to market information.
Indirect sourcing	Sourcing is carried out through a buying office or export agent, which are intermediaries between the supplier and the customer. The supplier is totally cut off from the market information and has no direct contact with the customer
Exclusive sourcing	A local sourcing agent carries out sourcing for the customer on an exclusive basis, but is still an independent entity. The supplier is again cut off from the market information and has no direct contact with the customer.

Sources: Bazan and Navas-Alemán (2001) and Mattila's (2005) buyer interviews done in 2003-2004

Multi-brand retailers sell different brands from those made by manufacturers and branded marketers but they may also promote their own brands. Fashion department stores such as Galleries Lafayette, Macy's and El Corte Inglés are examples of such retailers. Some chains carry only their own brands, for example H&M, Versace and Zara. Branded marketers design and market their own branded products, but have no production units or retail outlets of their own. Adidas, Nike and Reebok are typical examples. Global

branded manufacturers, usually located in developed countries, design, produce and sell their products under their own brand. Since the early 1990s these firms have increasingly moved their production to lower cost countries in order to stay competitive. Gradually they are turning into branded marketers. Chain stores and department stores prefer to promote their own brands while independent small retailers are dependent on supplier brands.

Hypermarkets have increased their soft goods sales in recent years. They usually carry all kinds of leather goods, footwear and clothing products, mostly supplier brands or non-branded. Mail order is still growing in southern Europe. The footwear market is very fragmented in southern Europe. In 2003, independent retailers had 52% of the Italian market and 53% of the Spanish market compared with 30%, 27% and 9% in Germany, France and United Kingdom, respectively (CBI, 2004).

5.3 *Hides and skins producers and markets*

Developing countries are the main producers of bovine hides, sheep and goatskins, and their share of global production is increasing, due in part to improved husbandry and tanning skills. According to FAO (2006) global production of hides and skins will grow slightly in the near future. Developing countries' production will more than offset the decline in developed countries' output (Table 6 and Figure 8). In 2004, Asia was the largest producer of bovine hides as well as sheep and goatskins, but its exports were modest due to high local consumption.

Table 6 Actual and projected production of hides and skins ('000 tons)

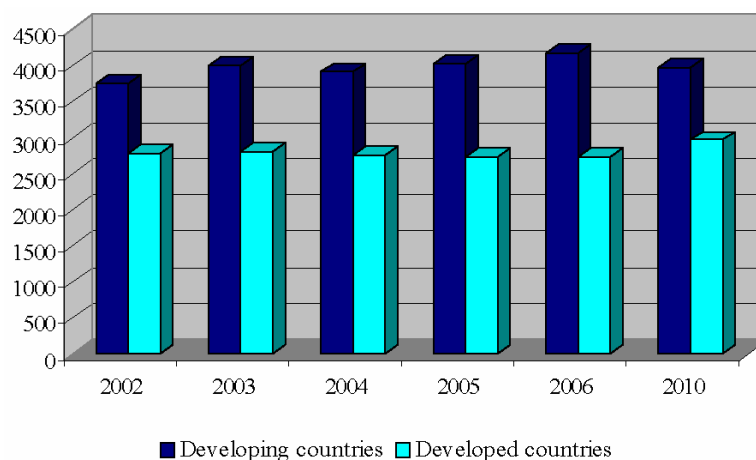
	<i>Actual</i>	<i>Projected</i>	<i>Annual (Av.)</i>		
	<i>(average)</i>		<i>Growth (%)</i>		
	<i>1989-91</i>	<i>1998-2002</i>	<i>2010</i>	<i>1989-91 to 2002</i>	<i>1998-2002 to 2010</i>
<i>Bovine hides</i>					
<i>World</i>	5352.3	5854.7	6214.0	0.78	0.51
<i>Developing</i>	2273.3	3197.9	3455.0	3.49	0.67
Africa	220.2	265.5	293.0	1.62	0.86
Latin America	1127.7	1401.9	1439.0	2.08	0.22
Middle East	167.2	202.7	200.0	1.70	-1.1
East Asia	755.4	1,324.8	1,523.0	6.54	1.25
<i>Developed</i>	3079.0	2656.8	2760.0	-2.2	0.32
North America	957.4	1,013.2	995.0	0.40	-1.5
Europe	1029.8	827.0	903.0	-6.5	0.77
Former USSR	798.6	502.8	550.0	-1.9	0.78
Oceania	198.3	227.6	217.0	0.89	-3.9
Other developed	94.9	86.2	95.0	-6.9	0.85

Table 6 Actual and projected production of hides and skins ('000 tons) (continued)

	<i>Actual (average)</i>		<i>2010</i>	<i>Annual (Av.) Growth (%)</i>	
	<i>1989-91</i>	<i>1998-2002</i>		<i>1989-91 to 2002</i>	<i>1998-2002 to 2010</i>
<i>Sheep and goatskins</i>					
<i>World</i>	569.7	637.1	726	-.69	1.16
<i>Developing</i>	319.6	429.4	514	3.00	1.64
Africa	61.2	69.5	82	0.89	1.50
Latin America	25.4	24.5	28	-.30	1.19
Middle East	67.8	84.5	113	1.30	2.81
East Asia	165.2	250.9	290	4.98	1.30
<i>Developed</i>	250.1	207.8	209	-.67	0.05
North America	6.4	4.4	3	-.64	-.63
Europe	93.8	81.3	82	-.21	0.08
Former USSR	47.6	21.8	30	-.19	3.11
Oceania	90.2	89.8	81	-.83	-.82
Other developed	12.1	10.5	13	-.02	1.98

Source: FAO (2005a), Table 5

Figure 8 Trends in global production of hides and skins, 2002–2010 ('000 tons) (see online version for colours)

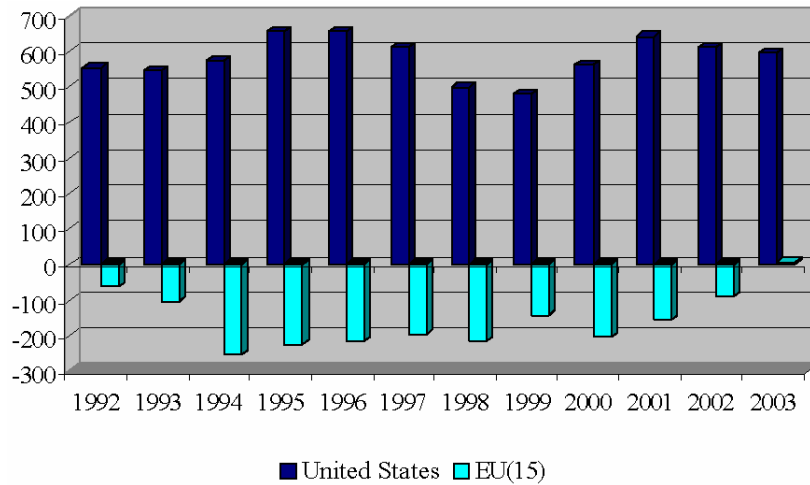


Source: FAO (2006)

United States was the largest exporter of bovine hides in 2004, followed by Australia and France. Together their exports amounted to 55% of the global total. Australia, the United Kingdom, Spain and France are the main exporters of sheepskins with wool and New Zealand, South Africa, the United Kingdom and Australia dominate exports of sheepskins without wool. Uganda, Greece, Spain and France are the leading exporters of goatskins (International Trade Center).

According to FAO estimates, the consumption of bovine hides is growing rapidly in developing countries and is expected to cause a negative trade balance by 2010, especially in East Asia. The trade balance for North America will stay positive while Europe's trade balance has been negative since 1992 (Figure 9). The developing world's trade balance in sheep and goatskins is expected to stay negative until 2010. These changes reflect the relocation of footwear and apparel manufacturing from developed to developing countries, especially to East Asia, during the past 10–15 years.

Figure 9 Trade balance on bovine hides – United States and EU(15) Wet salted weight – thousand tons (see online version for colours)



Source: FAO (2005a), Tables 10 and 13

Developing countries' share of exports of bovine hides grew during the period 1992-2000, but since 2001, this share has fallen slightly. In 2003, it amounted to only 13% of total global exports. A similar phenomenon has occurred with sheepskins, where developing countries share of exports in 2003 was 25%. Exports of goatskins for developing countries have been roughly steady during the same period, and in 2003 they represented 72% of total. Imports of bovine hides, sheepskins and goatskins by developing countries grew by around 50 and 11% respectively in the same period, due to their increasing demand for inputs into the tanning industry, turning many developing countries into net importers. Developing countries' exports of hides and skins have grown since 1992 (22%), while production has risen by 49%. This indicates that a proportionately growing share is consumed domestically or exported to other countries for tanning and manufacturing.

5.4 The leather market

Leather is traded at the semi-finished wet blue stage and as finished leather. The value-added of leather is higher than that of semi-processed hides and skins and therefore offers potential gains to developing countries' tanneries. Exports of wet blue bovine leather amounted to US\$2.6 billion in 2003. The United States was the largest exporter with 16% of global exports. There was a considerable decline in China's wet blue exports during 2002 and 2003 compared with previous years, mostly due to growing domestic demand.

Italy is by far the largest exporter of finished leather with 30% of the global total of US\$9.9 billion in 2004. China's exports rose from US\$95 million in 1999 to US\$964 million in 2004, making it the second largest exporter (International Council of Tanners, 2005).

Raw hides are primarily consumed by domestic leather industries but they are also traded internationally. Countries with large leather industries are the main customers. Table 7 presents the top leather producer countries. East Asia is the leading leather producing region but it was also the largest importer of bovine hides (1.1 million tons), sheepskins (30,300 tons) and goatskins (5000 tons) in 2003. China, Italy, Republic of Korea, Thailand and Germany were the largest importers of bovine hides in 2003. Turkey, India, Pakistan and China were the largest importers of goat and kidskins, and the main markets for sheepskins were Turkey, China, Italy, Poland and Spain.

Table 7 Top leather producers and development from 1997 to 2001 (mn square feet)

	1997	1998	1999	2000	2001	% change
China	2964.4	3285.3	3900.0	4141.8	4493.2	52
Italy	2149.4	1981.6	1820.0	2060.4	2065.7	-4
India	1369.3	1379.6	1392.0	1428.3	1423.7	4
Republic of Korea	1268.8	869.2	1000.0	1086.4	973.0	-23
USA	735.5	847.0	930.7	861.0	831.8	13
Former USSR	923.0	926.0	896.0	731.1	782.5	-15
Brazil	672.3	705.2	725.0	784.6	756.0	12
Mexico	632.9	673.6	668.2	619.9	568.3	-10
Spain	558.6	534.8	500.0	542.2	541.2	-3
Argentina	403.1	430.6	461.6	485.2	487.2	21
Turkey	550.3	509.6	556.8	410.0	419.2	-24
Pakistan	343.2	343.3	370.0	311.8	3144	-8

Source: International Council of Tanners (2005)

Italy is the main market for wet blue bovine leather, with imports worth around US\$1 billion in 2003. The next largest markets are Hong Kong SAR, China, Romania and Spain. The main markets for finished leather are Hong Kong SAR, China, United States and Germany. Most of Hong Kong SAR's imports of wet blue and finished leather are re-exported to China. The main export markets for goat leather are also Italy, Hong Kong SAR and China.

Manufacturers of footwear are by far the largest users of leather, accounting for more than 70 % of total demand. Hence, the following section concentrates solely on the footwear industry with a special focus on United States and European industries. Attention is focused on the European industry as it is the sector that is most likely to become (and already is to some extent) a major trading partner for Sub-Saharan Africa.

6 The footwear industry

Developed countries have become net importers of all types of leather shoes, with around 81% of the world total in 2003. The United States is by far the largest importer of leather footwear, with around 2 077 million pairs a year in 2005, out of which the majority originates from China. Hong Kong SAR, Germany and France are the next largest

importers. Germany and the United Kingdom are the largest European importers taking 168 and 157 million pairs respectively per year. Asia is the major exporter of leather shoes with 66.5% of the global total in 2003. China accounted for almost 90% of Asian exports (FAO, 2005a). China had 84.2 % of the total US footwear market in 2005 (Table 8). Imports from Vietnam have grown rapidly, overtaking those from Italy in 2004. All or nearly all of the sports shoes and women's and juveniles' footwear sold in the US market are imported.

Table 8 US footwear consumption in 2005 (million pairs)

	<i>Consumption</i>	<i>2004-2005 (%) change</i>	<i>Imports of total consumption (%)</i>	<i>Chinese imports of total consumption (%)</i>
Men's	237.0	1.9	95.2	77.5
Men's work	40.3	10.1	78.2	75.2
Women's	884.1	7.9	99.5	85.8
Juveniles'	291.5	12.1	99.9	91.0
Athletic	374.2	3.4	100.0	78.2
Slippers	126.8	-4.0	99.2	94.7
Other	14.2	45.1	98.9	77.7
Total leather	1954.3	6.3	99.1	84.8
Total non-leather	332.1	3.0	94.9	80.7
Total footwear	2286.5	5.8	98.5	84.2

Source: American Apparel and Footwear Association (2006)

According to the Centre for Promotion of Imports from the Developing Countries (CBI) the apparent consumption of footwear in EU-27 in 2005 was 2.1 billion pairs with a market value of 48.6 billion €. Leading importers from the developing countries are UK, Germany and Italy. China is the main source for imported footwear (Table 9). As developing countries' share of the lower value-added end of the market has increased, European manufacturers have turned to making higher quality products with higher value-added (Tod's, Prada, etc.). The top end of the market is thriving and there is also an increasing demand for casual and leisure footwear (CBI, 2004; CBI, 2007a).

Table 9 EU imports of leather products (€ million)

<i>Leather footwear</i>			<i>Leather bags and accessories</i>		<i>Leather garments</i>			
	<i>2005</i>	<i>%</i>	<i>2005</i>	<i>%</i>	<i>2006</i>	<i>%</i>		
Total EU	14,374.0		Total EU	2299.0	Total EU	1516.0		
Extra EU	6364.0	44	Extra EU	1199.0	40	Extra EU	1005.0	66
Developing all	5154.0	36	Developing all	824.0	36	Developing all	962.0	63
<i>Leading importers from developing countries</i>			<i>Leading importers from developing countries</i>			<i>Leading importers from developing countries</i>		
UK	1900.0	37	UK	213.0	26	Germany	231.0	24
Germany	1832.0	36	Germany	186.0	23	UK	192.0	20
Italy	1513.0	29	Italy	111.0	13	France	115.0	12
France	1018.0	20	France	88.0	11	Italy	113.0	12

Source: CBI (2007a), CBI (200b), CBI (200c)

There are only a few companies that have internationally recognised leather product brands. Most well-known fashion brands include leather garments, shoes and bags in their collections (e.g. Prada, Chanel, Tommy Hilfiger, Dolce & Gabbana). Most leading leather companies like Bally, Bata, Nike, Adidas and Timberland include leather garments, which are manufactured by sub-contractors in different parts of the world, in their product ranges.

Bally is one of the best-known brands in leather shoes. The 150-year-old Swiss company concentrates on high quality footwear for men and women. Since 2000 the company has gone into retailing with more than 200 stores throughout the world. Bata is one of the world's best-known medium- to low-priced footwear brands. Its global operations are organised into four business units (Europe, Asia-Pacific-Africa, Latin America and North America). Bata is established in 68 countries, employs over 40,000 people and has over 4000 retail outlets. There is one factory in both Australia and Czech Republic; the remaining 46 are in developing countries in Asia, Latin America and Africa. As a truly global operator Bata produces and sells different brands, including the Premium Collection (hand-crafted quality footwear), Industrials (safety footwear), Bubble gummers (children's shoes) Power (sports shoes) and Marie Claire (ladies' collection). Bally and Bata are examples of branded manufacturers that have expanded into retailing. Timberland is a footwear and garment brand for consumers who value outdoor life. It focuses on its own stores. Nike and Adidas specialise in footwear and garments for sport and active life. Nike has two design and marketing centres, one in Oregon, United States and one near Amsterdam in the Netherlands. Nike employs 26,000 people directly but another 650,000 people work in its contract factories, which are located around the world (137 in the Americas, 104 in Europe, the Middle East and Africa, 252 in North Asia and 238 in South Asia). Nike's net sales totalled US\$13.7 billion in 2005. Adidas is Nike's European equivalent with net sales of US\$8.0 billion in 2004. In 2005, Adidas acquired Reebok, another global athletic brand. Nike's production also takes place in contract factories around the world. Athletic footwear is made primarily of other materials than leather, but in certain models leather is still used. Nike and Adidas are examples of branded marketers without factories (Memedovic 2005; Nike 2005; Reebok, 2005)

6.1 Developing countries' shoe production is growing

Production of leather footwear in developing countries has grown since the beginning of the 1990s, while capacity has fallen in developed countries. In 2003, developing countries produced 3.4 billion pairs of leather footwear while developed countries produced only 1 billion pairs (FAO, 2005a). Asia is now the largest shoe-producing region in the world although South America is expected to increase its production and could be competition in the future. China is by far the largest individual producer of leather footwear, with Italy and Mexico in second and third place respectively (Table 10). Nearly all footwear sold in the United States is imported but in the EU, mainly due to strong branded marketers and branded manufacturers, a much larger share is produced locally. Footwear producers and branded marketers in Italy, Spain and Portugal continue to outsource their production to Eastern Europe and East Asia.

Vale et al. (2003) see footwear as having reached the full maturity stage of its product life cycle, despite the introduction of new production technologies. They argue that a technological maturity can be seen in developed countries' footwear industries, implying that new competitors could enter the international market, especially those with low wages.

Table 10 Leading leather shoe producers (million pairs)

	1994	1997	2000	2003
China	1500.0	1600.0	1900.0	1978.9
Italy	318.4	320.0	290.0	283.0
Mexico	300.0	255.0	250.1	240.0
Brazil	196.5	159.8	180.0	210.0
India	158.3	137.8	170.0	183.4
Indonesia	160.0	110.0	142.0	141.0
Spain	150.0	160.0	120.0	110.0
Republic of Korea	130.0	110.0	80.0	75.4
Portugal	80.9	79.0	72.0	74.2
Turkey	64.0	67.0	70.0	71.5

Source: FAO (2005a), Table 37

The cost of labour has been a main driver for relocating footwear and leather goods production from the EU and the United States to lower cost countries. Although developed countries, such as Italy and France, have much higher productivity due to modern machinery and efficient production methods, they cannot compete with countries like China, India and Vietnam on direct labour costs per product.

Manufacturing costs and productivity are the traditional determinants of competitiveness and the main drivers for selecting production locations. But lead times and flexibility of service have become increasingly important because of their direct impact on retail performance. Long lead times mean poor forecast accuracy and high-lost sales as well as slow stock turnaround. Therefore the most critical factors in the sourcing of fashion goods are costs and forecasting accuracy.

6.2 Actual trends and main actors in the footwear industry

As competition increased and new technologies became available, the EU footwear industry was forced to modernise and restructure.⁹ One notable trend was the move towards high-quality products with greater value-added and hence rents to be captured. Developed countries have also mainly specialised in particular niches, such as Italy, which produces high quality designer shoes (Schmitz and Knorringa, 2000). European manufacturers are also penetrating and replacing the lower-end footwear market with medium-quality products. While the lower end is usually reserved for imports from developing countries, the middle range segment is one in which European producers are still competitive. As a result, increasing numbers of companies serve both the top and middle sections of the market. This exploration of new markets by European producers has become possible due to changes in demand.¹⁰

Production of less expensive shoes has in many cases been relocated to third countries with European export-oriented production moving to Central and East European countries (CEECs) and North Africa (Algeria, Morocco, and Tunisia). Both regions have special trade arrangements with Europe while Poland, Czech Republic, Hungary and Slovakia joined the European Union in 2004. Developing countries in Asia such as China and Vietnam also produce footwear mainly for export to European countries. Shifts in the production of footwear have meant that the net share of European producers in the European market has fallen. According to the European Commission (2005), imports covered less than 50% of the European market demand in 1995 while in

2003, 75% of footwear purchased by EU consumers was produced in third countries. According to the estimations, 85% of the 400 million pairs lost in terms of EU production were from Italy (production down 34%), France (down 55%) and the United Kingdom (down 73%).

Most Asian shoe production is exported to the United States, where imports from China accounted for 83.5% of total footwear imports in 2004 (USAID, 2005). US footwear production dropped from 184.6 million pairs in 1990 to 35.2 million in 2004, while employment in the industry fell from 82,500 to 19,400 (AAFA, 2005). Similarly, the closure of 6000 firms and production relocation reduced the number of footwear manufacturing firms in the EU-25 from 33,350 in 1999 to 27,371 in 2003. Total employment in the industry fell by 160,000 jobs over the period 1995–2003 (EC, 2005). However, although production in Italy and France has fallen their respective exports have risen as branded marketers and branded manufacturers sourced their footwear from lower cost countries and then re-exported them (Table 11).

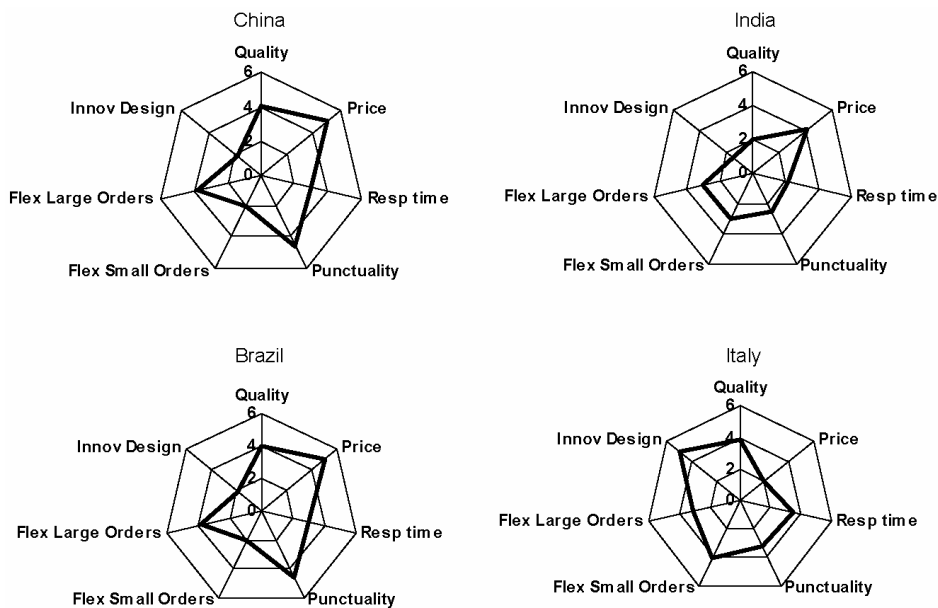
Table 11 Leading exporters of leather footwear and clothing (US\$ million)

	1999	2000	2001	2002	2003
<i>Footwear – World</i>	38,195.3	38,936.6	40,493.9	40,861.4	44,353.1
China	8678.8	9850.2	10,095.8	11,090.1	12,954.8
Italy	7296.5	7153.3	7580.3	7587.7	8375.8
Spain	2003.4	1885.2	1985.8	2124.6	2297.4
Vietnam	1387.1	1471.7	1630.2	1913.0	NA
Germany	1423.9	1296.8	1372.5	1648.4	1862.4
Belgium	1477.8	1378.0	1652.8	1855.3	1663.3
Portugal	1686.6	1479.1	1515.1	1497.4	1626.1
Brazil	1342.3	1625.3	1684.3	1516.4	1622.2
Romania	678.1	785.0	975.6	1157.9	1420.7
France	1052.6	944.2	956.1	1070.8	1275.3
Indonesia	1601.8	1672.1	1505.6	1148.1	1182.2
Netherlands	674.8	763.1	892.6	764.7	1,132.3
<i>Clothing – World</i>	10,176.7	11,615.6	12,422.8	12,183.2	14,937.1
China	2751.4	3781.4	4242.2	4735.3	6303.6
Italy	792.0	900.3	1,033.3	1,091.8	1,142.1
Malaysia	1005.3	923.9	876.6	876.4	954.6
Germany	436.2	398.4	473.2	510.0	570.0
Thailand	344.6	423.3	407.6	NA	562.1
India	391.1	514.8	421.1	325.7	459.0
France	286.1	295.8	301.5	364.0	435.6
Turkey	315.1	350.3	380.4	396.1	415.3
Pakistan	316.4	399.2	396.3	306.6	394.4
USA	419.4	442.0	468.9	365.2	340.6
Belgium	272.6	245.6	295.0	308.7	316.0
United Kingdom	254.0	224.3	194.6	221.1	301.4

Source: ITC (2006)

On the basis of European and US buyer interviews, the capabilities of Chinese, Indian, Brazilian and Italian footwear suppliers were assessed and compared by Schmitz and Knorrninga (2000) (Figure 10). The Chinese suppliers were found to be competitive in price, punctuality and quality and able to handle large orders flexibly. Flexibility with small orders and innovation and design capabilities were rather poor. India was better at handling small orders, but was far behind China on all other criteria. Brazil performed quite well in all areas. Italy was found superior in innovation and design and very flexible in handling small orders but prices were not attractive and response time and punctuality were average.

Figure 10 Performance profiles of selected footwear suppliers



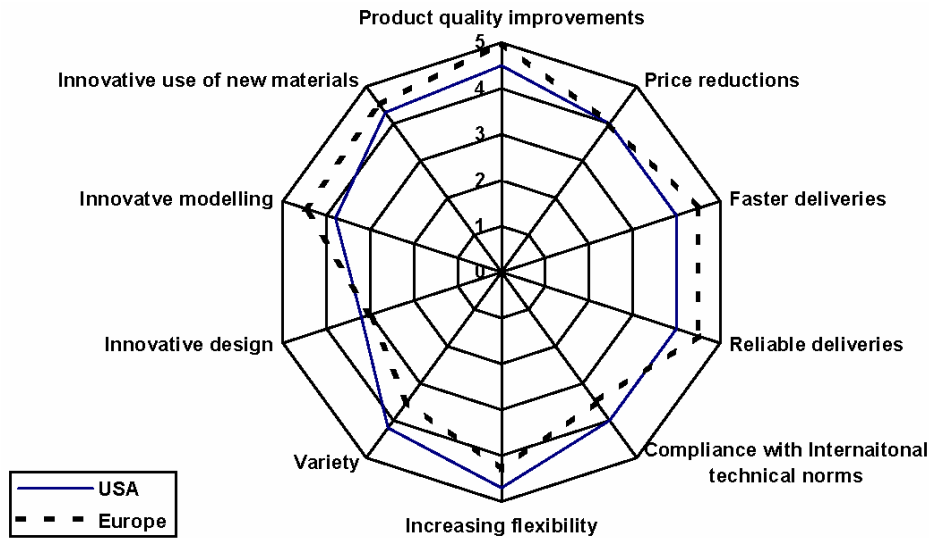
Source: Schmitz and Knorrninga, 2000

6.3 Difference between US and EU buyers

Buyers in the United States are driven by cost while the Europeans appreciate quality (Bazan and Navas Alemán, 2001) (Figure 11). The US chains put pressure on prices, work with several suppliers and move from one source to another if they can get a better deal. European chains, on the other hand, are anxious to ensure quality and have a closer relationship with their suppliers, which they change reluctantly. The US chains buy large volumes and use their strategic size in supply chain governance.

Most developing country suppliers do not have direct relationships with wholesalers or retailers in Europe or North America. Instead, ordered production, where companies in the developed world take advantage of cheap production and cost structures in developing countries, is standard procedure in the footwear industry. According to the Albanian Centre for International Trade (ACIT, 2005), there are six main reasons for this:

Figure 11 US and European buyers' demands on footwear producers' performance (see online version for colours)



Source: Bazan and Navas-Alemán (2001)

- opportunity to increase capacity and flexibility without investment
- specialisation
- lower production costs
- faster delivery
- possibility of trying out new production lines and supply without financial risk
- manufacturer bears the cost of producing samples in order to gain new orders.

Manufacturers have limited direct contact with lead firms (which control all high value added functions such as branding, marketing and chain coordination), are highly dependent on production assignments and may be replaced by production companies in other developing countries at any time. Buyers (via agents) control the supply chains at all stages, leaving little room for suppliers to upgrade to higher value-added stages. In general therefore, no knowledge transfer can be obtained and the chance for developing countries, especially the Sub-Saharan countries, of direct interaction with lead firms is small.

Nor can local suppliers choose to whom they sell their products. Their entry points into the global market are limited due to the lack of potential buyers, the importance of agents and lack of marketing channels into the European and US market.

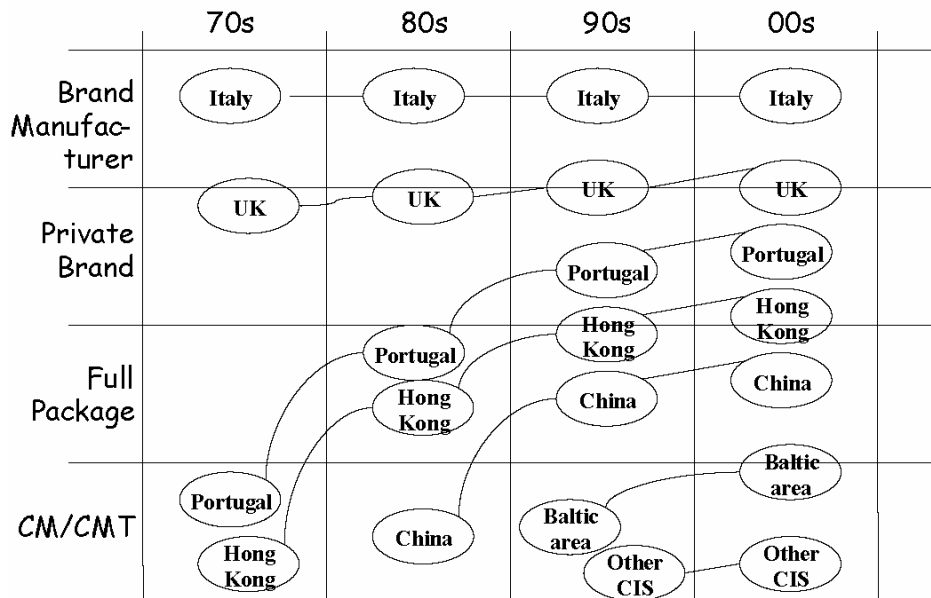
According to [Humphrey \(2003\)](#), suppliers should avoid being locked into relationships with buyers that prevent them from approaching new customers. Humphrey presents three strategic options for combating lock-in:

- *market diversification*. The supplier should work with several export markets and customers and promote diversification with export intelligence and participation in trade fairs.

- *excellence in manufacturing.* The manufacturer should be concerned not only with production efficiency but also with the service attributes of supply, including quality and consistency of quality, speed of delivery and speed of response to change in product design.
- *effective use of knowledge acquired from within the value chain.* Firms learn from contacts with different markets and from information flows between producers and customers. Demanding customers are also a good learning experience.

It takes time, however, to upgrade to more value-adding stages. It took the garment industries in Hong Kong SAR and Portugal 20 years to become private brand producers, and only a few companies have succeeded in becoming branded manufacturers. Most garment suppliers in Eastern Europe are still, after 15 years in a market economy, CM or CMT producers (Figure 12).

Figure 12 Transforming of apparel industries in the global value chain



Source: Mattila (2005)

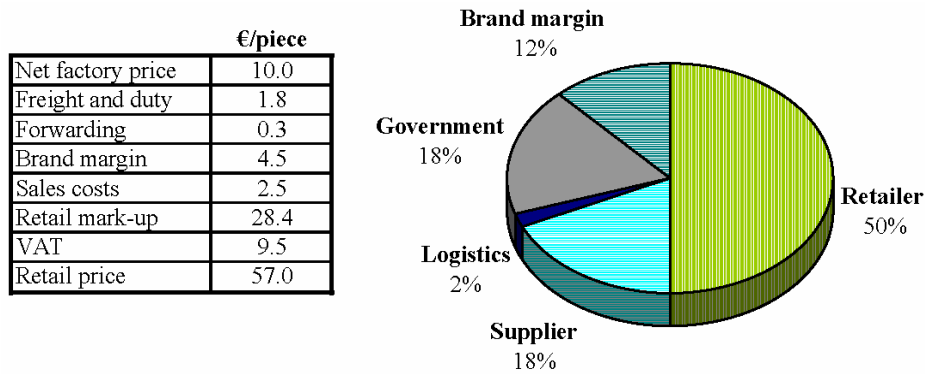
7 Cost build-up and value-added throughout the chain

The breakdown of the manufacturing cost for a pair of leather shoes varies from style to style, but the average for a developing country producer is materials 70%, labour 15% and overheads and profit 15% (CBI, 2004).¹¹

According to European buyer interviews, the net factory price of €10 for a leather garment from East Asia rises to €57 at retail level if it goes through a brand marketer (Figure 13). Of this, 50% goes to the retailer while the supplier earns 18%. In reality the retailer's earnings are lower as a considerable part of the merchandise bought has to be

sold at reduced prices.¹² The brand marketer's margin and sales costs account for 12%, and the government adds 18% to the price with VAT and duty. Direct logistics costs are only 2% of the whole.

Figure 13 Cost build-up within leather garment value chain from East Asia to Europe (€/piece)
(see online version for colours)



Source: Mattila's (2005) buyer interviews in 2003–2004

To reduce costs retail chains with their own brands prefer to go directly to the source and cut out all intermediaries if they do not add sufficient value through their merchandizing and quality control services. The alternatives for retail chains are either to set up their own sourcing office or organise quality and delivery control from their home base. The brand owners seem to prefer the following type of value chain in sourcing:¹³

- branded manufacturers prefer to work directly with independent offshore suppliers or to set up joint ventures or fully owned factories in low cost countries. They either have a team of travelling controllers or regional control offices. As branded manufacturers are strong in technology and quality aspects there is no need to work through buying agents or trading companies
- branded marketers have their own sourcing offices and employ local personnel for production and quality control. Branded marketers sometimes source through trading companies
- large own-brand retail chains like H&M have their own regional sourcing offices and seldom use trading companies for sourcing. Smaller retail chains rely on trading companies and agents, as they have no sourcing offices or technical personnel.

In the buyer-driven global leather value chain, leading buyers control the chain through superior knowledge of the market and design know-how. Branded marketers, own-brand retail chains and branded manufacturers in the developed world decide what products are to be sold to consumers and what materials are needed for making them. Although cost-wise, the retailer adds most value to the product, the brand owner's role in chain control is indisputable. There are also manufacturers with own brands in developing countries but often their products are only sold in local markets. Increasingly, Hong Kong SAR, Taiwan Province of China and Republic of Korea, once producers and now traders, are developing their own brands and collections and are trying to introduce them internationally. However, developed countries' companies still own most internationally known footwear and garment brands.

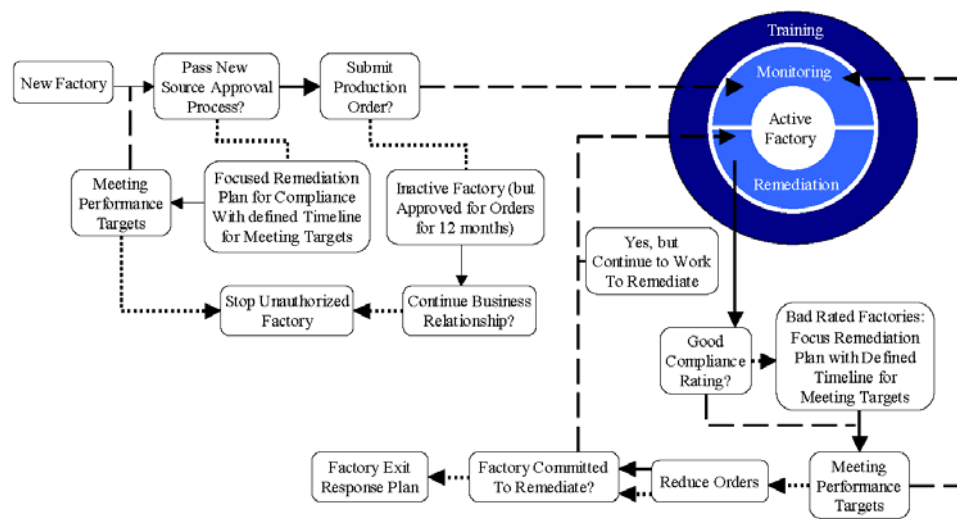
7.1 The Nike case

Nike’s strengths are in design, distribution and marketing with no actual in-house production; instead production is contracted to manufacturing companies abroad. The company was born based on the outsourcing principles. Phil Knight, one of the founders, observed the trend of low cost, high quality electronic products entering the US market in the 1960s and believed that the same strategies followed by Japanese firms to compete with US producers in electronics, could be applied in footwear, and hence Nike established its first relationships with two Japanese shoe manufacturers in the 1970s. Due to the changing economic environment in Japan, Nike started to look for alternatives and ‘began to cultivate potential suppliers in Republic of Korea, Thailand, China and Taiwan Province’ (Locke, 2002). Where economic developments endangered the countries’ cost advantages, largely due to low wages, as happened in the Republic of Korea and Taiwan Province of China in the 1980s, Nike shifted its production to other locations.

The higher value-added functions are carried out by lead suppliers, which are directly controlled by Nike, which retains control over the highest value added functions of the value chain, design and marketing and distribution. The lowest value-added functions are supplied from developing countries.

In 2004, there were over 800 factories¹⁴ in Nike’s supply chain with constant fluctuations depending on the ‘orders flow from Nike, which in part reflects changing consumer tastes and fashion trends’ (Nike, 2005). Over 500,000 employees out of about 630,000 were actually contracted factory employees, with the majority being between the ages of 19 and 25 years. To be eligible for footwear production, factories have to undergo a so-called Compliance Life Cycle (Figure 14). Companies that have not received production orders from one of the lead suppliers for over 12 months are unauthorised for further production and have to obtain a new manufacturing licence.

Figure 14 Nike’s factory compliance life cycle (see online version for colours)



Notes arrows and connectors mean ‘if yes’, arrows and connectors mean ‘if no’.

Source: Nike’s Corporate Responsibility Report FY04, 2005

7.2 Nike's factory compliance life cycle

Nike uses the analogy of a life cycle for its compliance programmes for contract factories. The first stage is a six-step New Source Approval Process (NSAP) to select factories. Once a factory is approved and begins active production for Nike, the compliance team focuses on monitoring and assisting factory remediation of compliance issues that arise. Factories with which Nike no longer has team relations may also benefit from Nike-supported training and other forms of capacity building to help the factory develop its own Corporate Responsibility (CR) management capabilities.

The compliance Life Cycle can be seen graphically below. Three stages can be distinguished:

- 1 *New Source Approval Process.* A multi-step process is required when a Nike business unit seeks to add a new factory to the source base. The process is intended to weed out unnecessary additions to the supply chain, or factories that do not have CR performance at a sufficient level. In 2004, 57% of the factories that had the basic inspections performed were approved for production.
- 2 *Monitoring and Factory Remediation.* There are three levels of monitoring: basic monitoring, in-depth audit and external monitoring.
- 3 *Addressing the impacts of factory exits.* When a significant number of workers may be affected by Nike's decision to end business with a contract factory, Nike applies the Factory Exit Response plan that calls for support workers to receive all entitlements as set out in the labour law; advocates that contract factory owners should fulfil all severance requirements as set out in the labour law; leverages a wide range of contracts to help move a factory owner toward fulfilment of its legal obligations; and explores worker support programmes if an owner fails to meet the legal obligations.

The retail price for shoes is many times greater than the original component prices, as costs are added throughout the value chain. The retail price for a pair of Nike shoes made in the East Asia is four times higher than the net factory price while the direct labour cost for production is only 2.6% of the retail price. Direct logistics costs, i.e. shipping, customs and financial costs are 3.9% while the total logistics (Net Factory Price – Total Cost of Goods Sold) cost is 5.9% (Table 12).

Former manufacturing countries (Japan, Republic of Korea and Taiwan Province of China) have metamorphosed into lead suppliers responsible for monitoring manufacturing plants in low-cost countries (China, Indonesia, Vietnam), controlling product quality and production processes. For example, Nike cooperates on footwear designs and styles with its Asian lead suppliers, which produce prototypes and pass the product specifications on to manufacturing plants throughout Southeast Asia. Furthermore, testing of merchandise at all stages of production is conducted on random samples in lead supplier countries (UNCTAD, 2003).

Table 12 Value chain for US\$100 pair of NIKE shoes, 2000

<i>Type of costs</i>	<i>Value (US\$)</i>
Material cost	15.67
Direct labour cost	2.59
Administration and overhead	4.56
Factory profit margin	1.90
<i>Net factory price</i>	<i>24.71</i>
Shipping, customs and finance charges	3.88
<i>Net landed price</i>	<i>28.59</i>
Warehousing and distribution	0.76
Royalties	0.38
Net quality costs	0.27
Direct ship allowances	0.21
Research and development	0.23
Other costs of sale	0.17
<i>Total cost of goods sold</i>	<i>30.62</i>
Sales discounts	4.61
Allowances	8.29
Corporate overheads	1.75
Interest expense	0.21
Income taxes	2.56
<i>Total NIKE cost</i>	<i>48.03</i>
NIKE net profit	4.00
<i>Gross wholesale price</i>	<i>52.03</i>
<i>Retail costs and profit</i>	<i>47.97</i>
<i>Retail sales price</i>	<i>100.00</i>

Source: Adapted from McIntyre and Perlman (2000)

8 Conclusions and policy implications

A well-developed hide production and tanning industry is the starting point for leather product manufacturing and for upgrading by any developing country and LDC in particular in the leather supply and value chain. It is unrealistic to expect a manufacturing industry to develop without local or nearby material supplies, especially as customers in developed countries prefer full-package services. China, with a plentiful supply of local materials and full-package capability, has capitalised on this.

The first step in upgrading by leather product manufacturers in Africa and other developing regions is to move from the lowest value adding CM/CMT to full-package, and then to private brand. Some firms can become branded manufacturers by targeting the domestic market, but few will manage to develop international brands as firms in developed countries exercise tight global value chain governance and prefer to keep the leather product suppliers in developing countries at arm's length from the market. Trade barriers still exist and both EU and US industrial organisations are lobbying for the return of further limitations on Chinese imports.

Upgrading by developing countries requires enhanced knowledge, technology improvement and access to financing. Companies cannot do this alone. Business support system including productivity and technology centres, training centres, cleaner production centres and investment and export promotion organisations should be established to provide information and advice on technical and trading issues. The objective should be to improve quality, production methods and productivity in order to make enterprises competitive and attractive to the rest of the global leather value chain. These centres should offer practical advice on how enterprises can upgrade their manufacturing methods.

Financing is often a problem for industry in developing countries and can block upgrading efforts, especially in SMEs. Commercial bank loans may be expensive and difficult to obtain due to lack of collateral. Special financing, by either national or international financing institutions, should be made available for private sector companies.

Private-public sector partnerships covering industrial associations, SMEs and large corporations are needed to promote economic development. Joint Ventures (JV) and foreign direct investment (FDI) should be encouraged, as they bring know-how as well as much needed capital and ultimately result in local spin-offs and upgrading in the value chain. This has happened in China, where there are tens of thousands of JVs and substantial FDI has been received from more developed Asian countries, the EU and United States.

Governments can also make it more attractive for foreign multinationals to invest in their country by setting up programmes to stimulate growth in an entire industry and by supporting the business development services. The South African government has set up such a programme to attract investment from car manufacturers with great success.

8.1 Technical knowledge

Training centres, like the Training and Production Centre for the Shoe Industry (TPCSI), established by UNIDO in Kenya, should be set up to improve production and management skills. By improving hide and tanning quality, local footwear and leather product manufacturers in Africa can upgrade their product quality and become competitive in the domestic market, substituting current imports from Asia and second hand imports from Europe.

The importance of quality and environmental issues must be emphasised. Quality problems are one of the main reasons preventing African suppliers from exporting their goods. Strict process controls, particularly in relation to chemical dosing, water conservation, recycling and waste treatment, are often missing in the LDCs and, according to UNIDO estimates, 50% of the total pollution load caused could be eliminated by such measures (UNIDO, 2001).

Developing countries lack the ability to assist their producers in meeting product standards, which often act as a barrier to developing country exports (Stiglitz et al., 2005). Significant assistance is required to build up their capabilities to conform to product standard requirements. UNIDO recommends the following priority areas for assistance: (1) a national/regional standards/standardisation body, (2) a national/regional metrology system, (3) a certification/conformity assessment system and (4) an accreditation system.

Using the Italian industry as a benchmark, several key areas in the African leather sector were identified for further development by Kiruthu (2002) (Table 13). The industry should also be encouraged and helped to respond to market requirements. In order to enhance productivity, existing workflows should be reorganised and improved with respect to equipment, production methods and maintenance.

Table 13 Results of qualitative benchmarking exercise of the leather supply chain factors

<i>Factors</i>	<i>Africa</i>		<i>Developed country</i>
	<i>Kenya</i>	<i>Ethiopia</i>	<i>Italy</i>
Availability of raw hides and skins	Abundant	Abundant	Low
Quality of raw hides and skins	Generally poor	Low–high	High
Access to and cost of raw materials	Generally easy	Generally easy	Difficult
Access to financial resources	Difficult	Difficult	Easy
Sustained capital investment	Low	Low	High
Technological sophistication of facilities and equipment	Low-medium	Low-medium	Very high
Process skills	Limited	Limited	Very high
Research & development	Limited	Limited	Very high
Product development	Limited	Limited	Very high
Tradition in the industry	Fairly recent	Fairly recent	Early
Unique skills within the sector	Rare	Rare	High
Degree of vertical integration	Low	Low	High
Product perception by the global market	Poor	Poor (high for sheep skins)	Very high

Source: Kiruthu (2002)

8.2 *Entry to the leather value chain*

Governments and intermediate institutions and organisations, such as export promotion boards and industry organisations, should organise trade missions and assist companies to participate in trade fairs by providing information about such events and possibly by giving financial support. The International Trade Centre (ITC), UNCTAD and WTO have sponsored such events in Africa.

Governments of developing countries should encourage foreign investment in the leather sector by providing potential investors with information on investment possibilities. Legislation should be made foreign investor friendly. When China started to open up to the world in the 1980s, both joint ventures and foreign direct investment were facilitated through tax treaties, waivers on import duties on machinery and so on.

Virtual market places and e-commerce should also be utilised. Individual Internet sites can generate contacts with foreign buyers. Local industry associations or commercial firms in several developing countries have set up joint Internet sites, which list local suppliers, their capabilities and products. An e-trade market place for African producers of wet-blue and crust to source their inputs, notably hides and skins and chemicals, and of their by-products can be established, and this can be further expanded to cover leather suppliers as well.

Intermediary agents control international trade in hides and skins, which makes for long lead times, increases costs and prevents direct supplier/customer contact. Strategic supply alliances and direct customer contact should be encouraged in order to bypass such intermediaries. Trading firms may, however, be the necessary first step for footwear or leather product producers, for example in South East Asia. Some Hong Kong SAR trading firms have huge numbers of customer contacts and they continuously look for new suppliers. A supplier using this method of entry to the global leather value chain should avoid being locked into a trading company and should look for other opportunities. When approaching foreign customers directly a supplier should be aware of the various sourcing concepts used by different types of buyers.

Goonatilake (2006) states that there are three requisites for successful trade participation: (1) countries must have marketable products for export of competitive capacities, (2) products must conform to requirements of clients and markets (conformity with standards) and (3) market integration through rules for trade and simplified cross border transactions should enable connectivity to markets.

8.3 Strategy for survival and growth

Growth and upgrading are real possibilities for firms in the global leather value chain. China's development from practically zero to the leading footwear supplier to the United States and the EU in 25 years is an example of this. According to several evaluations ([Gereffi and Memedovic, 2003](#)) opposite policies in India have prevented it from taking place there.

The strategy for survival and growth for a developing country supplier can be summarised as follows:

- 1 access to good quality production inputs together with thorough technical know-how and good production facilities are the basis for quality products
- 2 buyers appreciate speed and flexibility as well as attractive prices. Internal and external logistics must meet buyers' requirements and unnecessary intermediaries should be cut off
- 3 firms should make full use of government support to the local leather cluster in terms of training, trade promotion, encouragement of foreign investments and barrier-free trade
- 4 joint ventures are a quick way of gaining technical know-how and financing as well as direct access to export markets
- 5 access to globally competitive financing is important, especially for firms upgrading from low value adding production concepts such as CM and CMT to full package and private brand

- 6 management skills, i.e. technical and marketing know-how and language skills should be enhanced. They are the only ways of improving quality and of gaining access to export markets
- 7 firms in developing countries should not stay locked into a few large customers. They should obtain market information and approach foreign buyers directly through participation in trade fairs and direct contacts.

8.4 Recommendations for international organisations

Education and good technical skills are the foundation for industrial development. The focus of training should, however, follow the sequence of the leather value chain and aim at improving the quality and efficiency of animal husbandry and slaughter first, and leather production next. A competitive leather product industry cannot be developed without a local supply of good quality leather. Development of management skills is equally important. Management in developing countries should be provided with information about global value chains in order to understand how upgrading is possible. UNIDO has been active in promoting training and the Training and Production Centre for the Shoe Industry (TPCSI) in Kenya is a good example of this. UNIDO and other international organisations have a central role in promoting training and activating local governments in this field.

Promotion of trade through local trade fairs or international trade missions should go beyond conventional exhibitions. Creating direct contacts between suppliers and customers and giving developing country manufacturers accurate and practical market information is more useful than participation in general fairs. Events like the buyer meetings organised by the Centre for Development and Enterprise and Textilica by the Swedes should be arranged and supported financially. International organisations like UNIDO could also take a leading role in assisting the LDCs in organising virtual market places, for example Internet sites that present producers and their products. Idea for an e-trade market place for African producers of wet blue, crust, chemicals and by-products should be explored.

Joint ventures and FDI should be encouraged, as they are one of the main routes to industrial development as are outward oriented development strategies and policies. Not all developing country governments favour joint ventures or FDI; and trade barriers, bureaucracy and corruption hinder industrial development. A study on what the real impact of joint ventures, FDI and liberal trade policies, with a special focus on creating successful manufacturing industries in developing countries, could be commissioned in order to highlight and demonstrate the importance of such policies.

Recognition of environmental issues through sustainable methods of production, cleaner technologies and recycling and pollution control are areas where UNIDO, ITC and FAO can provide practical help. UNIDO's Regional Africa Leather and Footwear Industry Scheme, which assisted 35 African tanneries in establishing or upgrading effluent treatment plants by providing experts, equipment and monitoring services, is a good example of such assistance.

Access to competitive financing is often difficult for developing country enterprises, despite the fact that there are a number of international organisations, such as the International Finance Corporation, and numerous national development country funds. Aid to developing countries by the developed world should have a greater focus on

industrial development and job creation, which has a sustainable and long lasting positive impact and helps emerging nations in the start-up of industrial development. The protectionist measures against footwear and apparel imports from China by the EU and United States cannot be a long term solution and is definitely against the free trade and free market sought by WTO. Liberalizing trade at both ends of the supply chain and adapting to the global change will prove advantageous on the long run.

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Notes:

- 1 The process of globalization has promoted two types of value chains: the producer-driven chain in the capital intensive and high-technology industries such as the automobile industry, and the buyer-driven chain, to which the leather industry belongs, which is organized around labour-intensive industries such as footwear and leather garments. In the buyer-driven chain the marketing and manufacturing agents (retailers, branded marketing agencies and branded manufacturers) set up supply chains networks, principally in developing countries. Enterprises in exporting developing countries produce the finished goods under contract, following the specifications, guidelines and technical advice provided by the purchasing agents.
- 2 Cattle hides, calf hides, buffalo hides, sheepskins, karakul skins, goatskins, pigskins, horse hides, mule hides, camel hides, rabbit skins, fur skins, other hides and skins.
- 3 Unless otherwise stated, production and trade statistics used in this paper were obtained from the World Statistical Compendium for Raw Hides and Skins, Leather and Leather Footwear 1986–2004 (Food and Agriculture Organization of the United Nations, 2005); estimated numbers.
- 4 FAO (2001b).
- 5 BASF AG (1999).
- 6 CEN (2004).
- 7 The European Eco-label catalogue (2006).
- 8 Levi's has decided to move completely to full-package and cut off all suppliers unable to handle it.
- 9 UNCTAD (2003).
- 10 ACIT (2005).
- 11 An example for a pair of leather shoes made in India.
- 12 Between 30% and 35% of all merchandise bought by apparel retailers is not sold at the original price. It is cleared through sales with average markdowns of 40–50%.
- 13 Based on buyer interviews carried out by Mattila in 2003–2004.
- 14 This number includes all factories, i.e. apparel/garment and footwear factories. In general, the governance structure and supply chains are more or less the same for the two product groups.