

SOCIAL PREMISES FOR A SUSTAINABLE LEATHER INDUSTRY

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Abstract: *Sustainability is not any more a new and un-known subject in the leather business world. There is a certain reorientation and implementation tendency of its requirements at organization level, in the last years. However, there are still some ambiguities and uncertainties related on the approach and practice of all principles included in the concept. That's why each organization tries to formulate winning strategies on long term, showing an equal importance for human resources, social balance and the environment. This work highlights the efficiency of the human resources in the leather industry's sustainability, a study created by seven national associations representing the leather industry from Italy, Spain, France, Germany, UK, Sweden and Romania. The analysis of social indicators demonstrates that tanneries in Europe are increasingly committed to the ethical and social aspects of their business, and that, through continuous investments, they have been able to ensure substantial improvements in process efficiency and in pollution prevention and control. All the efforts made by European tanneries over the years have resulted in improving the sustainability of their production. The excellent results achieved deserve to be valued more by stakeholders and better incentivised through measures encouraging new and future investments. The environmental and social values demonstrated by European leather help to keep European tanners ahead of international competition.*

Keywords: sustainability; leather industry; environment; social; economic.

JEL classification: Q01

1. Introduction

Analyzed in the systemic context of the tannery activities can be considered a source offering a high added value for various value chain, starting with fashion and footwear industry and continuing with, clothing, leather goods, automotive, furnishing, and finishing with goods the lag the daily consumption of the utility.

Main input elements in the system are hides from animals slaughtered, tanning chemicals and water. More than 99% of hides and skins can be considered as a secondary product, because the animals are kept, primarily meat, milk, and various household activities, transportation and agriculture.

As part of the system, tanneries, making use of this secondary product, have an economic and environmentally friendly at the same time; absences tanneries in the system would generate a simple recycling process. Tanneries structure is differentiated by continents, geographical area, and even work on each area separately; in Europe tanneries activities combines traditionalism with innovation, in the sense that values traditional craft, from past history, are added innovative elements technological development and non-technological usage, in order to remain at the forefront of innovation for new products and new technologies; it is in fact a core strategic component of sustainability tanning processes. As the output of the system elements are multi-use patent leather. Economically, finished leather is a material with outstanding feature, hat the socially can

generate jobs in many areas, from tanning, continuing with other value chains such as clothing industry, shoes industry, leather goods, furniture, automotive, consumer goods industry. Since tanneries in Europe can enter the market continuously, new products, new applications for various end uses, they include in their bids the skins, intangible values, that responding to the global challenge of sustainable development in economic, social and environmental, in accordance with the provisions of the 1987 Brundtland Report, entitled *Our Common Future*, WECD.(3) From the point of view of environmental protection in order to ensure sustainability of the leather tanning process this is achieved through processes increasingly clean, specific consumption of chemical, energy and dwindling water cut, and waste recycling processes more efficient; it is thus a constant and perpetual activity oriented environment; of course these actions have an effect on the increase in costs for the tanning of leather.

On the basis of the social dimension of sustainability leather tanning processes in Europe lies inclusive policy, that tannery workers are much better balanced compared to workers in other sectors; their integration into the production process is much faster, regardless of nationality; this is because tanning technologies are less complex, have a high degree of repeatability, and specific production volumes or mass production of large series.

However, there are two issues that can jeopardize the existence of tanneries in Europe

- Lack of competitiveness of tanneries in Europe, determined by the lack of adequate policies to encourage a level playing field in relation to the tanneries outside Europe.

- The phenomenon of commercial reciprocity, as part of fair competition; according to this phenomenon requires the elimination of trade barriers of any kind (export tax, import duties for materials, hides and skins, chemicals for tanning leather). Their existence distorts prices and encourages unfair competition on the world market of leathers. These days the leather industry should face some severe constraints mainly due to the decrease of the natural resources at regional level and to the apparition of some environmental problems at border, regional and global levels. Inevitably some measures are needed for a concentrated action in sustaining the sustainable politics and its monitoring, in conformity with the existing regulation for this industry. A special attention should be focused on using systematically of the scientific expertise in implementing the technical management, in correlation with the sustainability demand (5). European leather production historically positioned itself at the top end of the market, constantly seeking to improve quality and to innovate its offer to the market. All the efforts made by European tanneries over the years have resulted in improving the sustainability of their production. The excellent results achieved deserve to be valued more by stakeholders and better incentivized through measures encouraging new and future investments.

A statistical activity of tanneries in Europe, shows that tanneries in Italy take and process more than 99.4% of the raw skins of calves, cattle, goats and sheep adult.

Production per animal type in the sample (Figure 1) reflects perfectly the characteristic distribution of European production, where adult bovines, calves, sheep and goats, compose the largest share of raw materials. A residual share of production is based on other animal types (such as pig skins, deerskins and noble furs), which constitute significant shares of production in certain countries. (2)

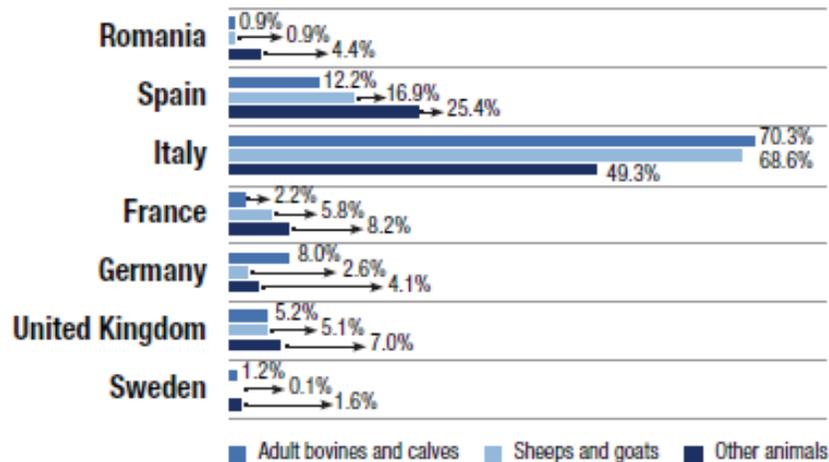


Figure 1: Sample characterization: production per animal typology

Source: www.euroleather.com

2. Economic and social indicators from the leather industry

Speaking about the development of the leather industry in Europe, it is specified that its essential component is the tanning sector. The final product of this sector, leather, can be considered an intermediate product, given that by inserting it in downstream sectors, due to the potential high added value, especially because it has competitive advantages, they contribute substantial value finished products in which it is incorporated.

As an intermediate product in the process of tanning, the skin has some essential features for various applications: skin is a hygienic, flexible, abrasion resistance while special color. Tanners designing production processes specific to each application, to give leather diversified characteristics required by numerous users.

For tanneries in Europe industrial users noticed two groups: of footwear and leather tanneries; in Europe they have a long tradition. European leather industry today encompasses a turnover of 30 million Euro annually performed by 24,000 companies and about 400,000 employees. Production achieved a market absorbed structure follows: about 35% of the market outside the Community, about 60% of intra Community-market, about 5% owned tanneries markets. It is clear that the European market is an important producer and consumer of this product.

Currently relocation strategy is relevant to certain sectors by the states outside the EU, developing economies, both in terms of markets, but especially in terms of the tanning process.

If we take account of all activities related to the manufacture of skin segments (upholstery furniture, clothing, car interiors, etc.) and related sectors (chemicals, machinery, logistics, etc.), the entire industry in Europe is estimated to be composed of more than 40,000 companies with over 500,000 employees, with a total turnover of 50 billion euros, which places it in a prominent place in the world ranking.(3)

Table 1: The European leather industry in 2013

Sector	Companies [no.]	Employees [nr.]	Turnover [md.euro]	Extra EU export [md.euro]
Tanning	1 783	34 504	7 750	2 307
Footwear	11 692	274 296	13 905	4 700
Leather goods	10 710	83 464	9 541	4 066
Total	24 185	392 264	31 196	11 073

Source: www.euroleather.com

Even if its share at global level has been declining in recent times due to the growth of the sector in certain emerging economies, the European tanning sector is still the global leader both in terms of: turnover, covering 26,7% of the world total (after China, accounting for 29,5%); overall quality level reached by the industry through product and process innovation; in particular with regard to technology (through a constant research on the processing cycle and product performance), environmental commitment (chemicals, water, solid waste and air emissions consequent to the tanning process are fully treated and recycled for more than 90%), social commitment (outstanding relationship with the workforce and a pioneering social dialogue with corresponding unions have improved the levels of education and training of human resources and led to a constant reduction of injuries), design and style innovation (very high importance is given to the study, the creation and the development of fashion trends).

Human capital is the important element in each tannery. Given the characteristics of the tanning process, it is preferred human capital capable of providing quality tanning process (primarily through experience); while human capital must be ensured in training for future periods. So competitiveness of the sector must be maintained at a level capable of ensuring the sustainability of tanning processes. Tanneries in Europe are increasingly employed in the development of ethical, social and environmental impact of their business by strengthening and improving relations with stakeholders: employers, workers, customers, the public, civil society. The social dimension developed in tanning processes is presented by the authors in the paper by means of relevant indicators: Types of contracts, Age brackets, Education, age, Seniority, Gender equality, Gender equality Accidents and Employee benefits.(1)

The structure of the workforce in tanneries sees the predominance of professional profiles with technical and production oriented skills (79% of the workforce).

As illustrated in Figure 2, low specialization production workers prevail in the shop floor (over 66% in 2010 and 2011), while highly skilled personnel tend to be higher in other departments or services. Indeed, Research and Development related jobs are increasing their importance both in the area of process technologies and fashion, design and style.

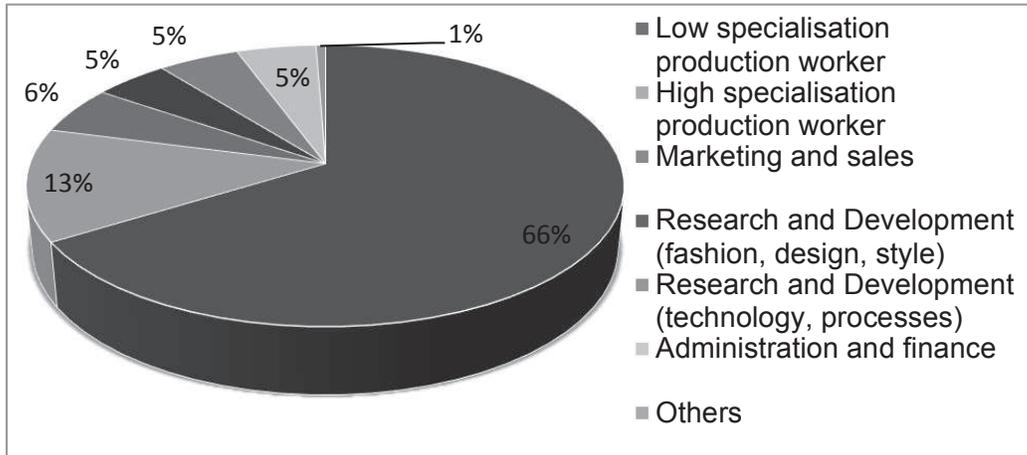


Figure 2: Job categories 2013 (%)

As shown in Figure 3, more than 87% of the workforce of European tanneries are employed with a permanent contract. Different forms of fixed-term employment contracts make up the balance.

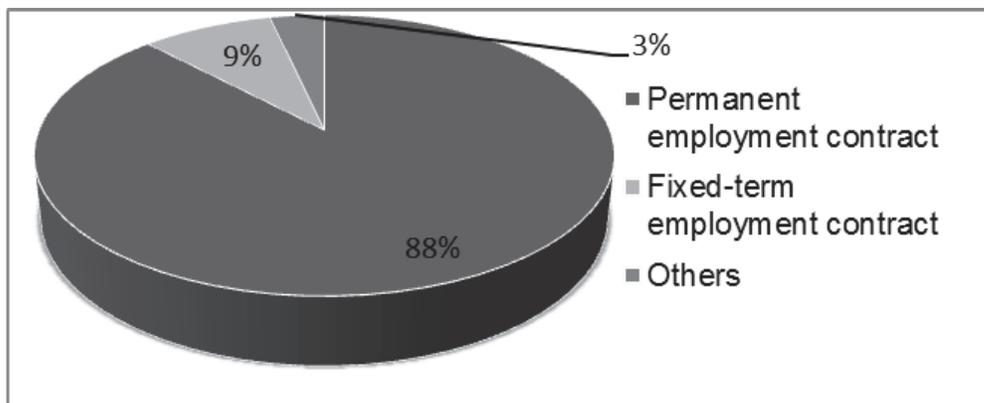


Figure 3: Contractual types 2013

Figure 4 shows a quite consistent distribution. Workers under 35 years of age represent almost 30% of the total in 2011. The age bracket of those employees aged between 35 and 55 displays the largest incidence in both years under consideration. Studies carried out at EU level show that one of the most relevant issues for Europe’s tanneries is the low appeal of the sector among young people. Many initiatives involving schools and teachers are in place for reversing this trend. National associations and trade unions are generally their promoters, but results show that a more comprehensive effort at European level is necessary to renew the sector’s workforce on a sustainable basis.

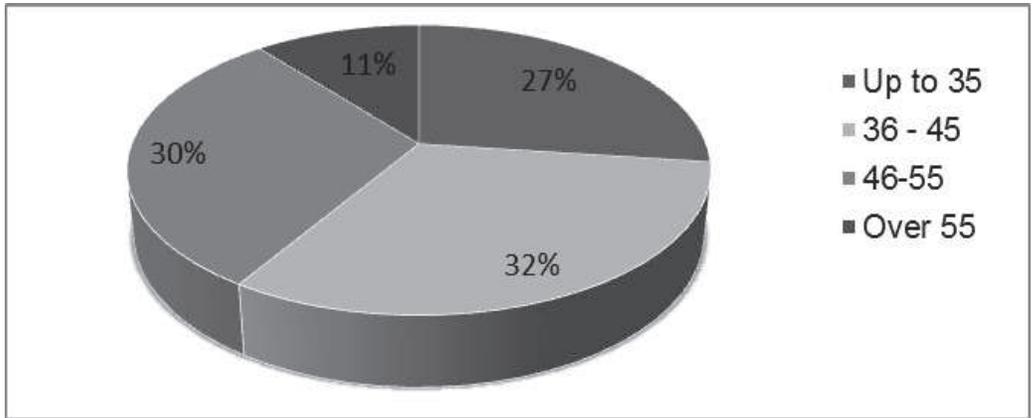


Figure 4: Age brackets 2013 (%)

Figure 5 illustrates the results of the survey in terms of Seniority. More than 50% of the workforce has been employed in the tanning sector for less than 10 years, while a significant share of the total remain in tannery jobs for a large portion of their working life.

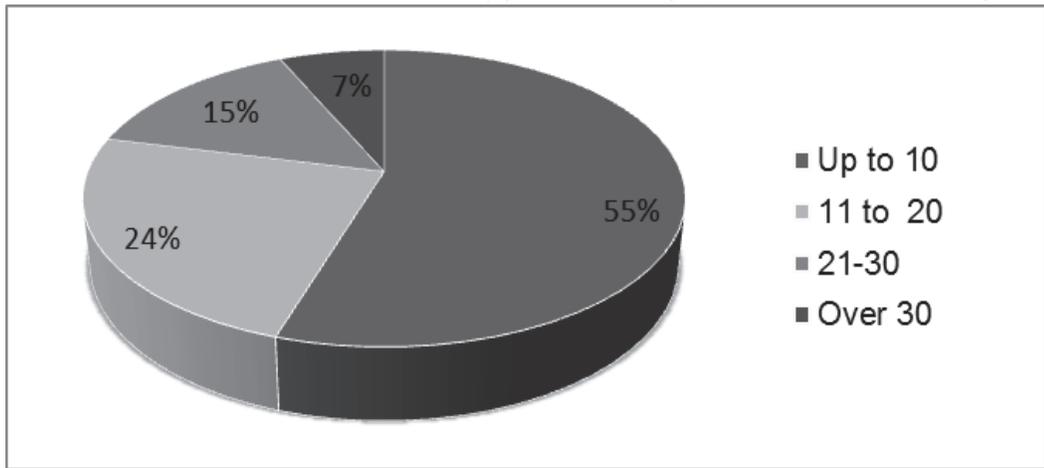


Figure 5: Seniority categories 2013 (%)

The job distribution depicted in Figure no 2 mirrors the analysis of the educational level, shown in Figure 6 ISCED levels 1 and 2, corresponding respectively to Primary education or first stage of basic education and to Lower secondary or second stage of basic education (see informative box), represent the same share of the total (almost 70%) as the low specialization production workers employed in tanneries (66.2% in 2011).

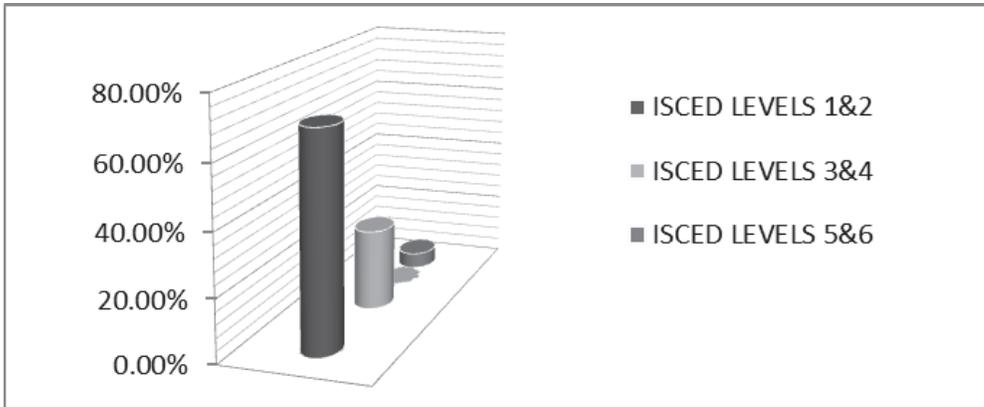


Figure 6: Education 2013 (%)

The tanning sector is traditionally closely and firmly rooted in its territory. Figure 7 shows that a very large share of the workers in European tanneries come from the same country of the tannery they work for. In some cases, hiring is performed predominantly in the very area (city or province) where the tanneries are based. Immigration and integration of foreign workers is nevertheless a noticeable feature. Another significant share of workers (9.2% in 2011) comes from foreign non-European countries. This exemplifies the positive interaction of Europe's tanneries with their local communities where leather often represents the main employment opportunity that also contributes to the integration of immigrants at local and regional level.



Figure 7: Territorial origin 2013 (%)

Human resources becoming so crucial for the sector's competitiveness, European tanneries have understood the importance of training their employees. To compete in the international market on quality, product consistency and performance, fashion and service to customers, skilled personnel is essential, notably in high-cost economies such as Europe. The combination of experience and youth, i.e. skilled workers and young applicants, represents the key asset on which the competitiveness of the sector is based. This can be enhanced at sector level by developing continuing vocational training and life-long learning. Despite a long tradition and the international reputation of Europe's tanning schools and dedicated university departments and chairs, leather specific education and

training in Europe is in distress. Critical mass for filling classrooms, geographical dispersion of tanneries and language barriers are some of the obstacles facing an effective reorganization of professional training in the European leather sector. Continuing Vocational Training and life-long learning are promising instruments. Skills can be transferred or up-graded in the tanneries themselves with courses adapted to the specific job and coaching or learning at the trainee's own speed. The environmental and social values demonstrated by European leather help to keep European tanners ahead of international competition. Although has made considerable progress on environmental aspects, the leather industry is still an aggressive source of pollution on all environmental factors: water, air and soil. Managers of specific tannery processes are advised to take into consideration the applied technologies but also the training level of their employees, their life outside the factory's gates, the effects of their production on the environment, approach that includes all the components: economic, social and environmental. Selection of the most adequate chemical products, processes and technologies to lead to the best performance from the production sustainability's point of view, when there is a wide offer from the chemical producers, is an activity that oblige to a careful and exhaustive documentation. Using a simplifying approach, a product of this research is the web site: <http://sustainabilityintheleatherindustry.wordpress.com>, whose architecture defines:

- Citation's order criterion and the data access;
- Selection option in each data citation order criterion.

Projection of the data basis has been made by considering the information should be grouped in tables on the subject's basis, to reduce the redundant data. Dividing the information's elements in entities or major subjects, respectively chemical processing products, conventional processes and the best practices for leather processing, is shown below. Subsequently each subject becomes a table.

Solution found in this work has been treated theoretically and practically by the initiation of the web site: <http://sustainabletechnologiesinleatherindustry.wordpress.com> and by developing process recipes for some demanded articles on the market, in conformity with the sustainable principles in leather industry.

This site synthetize the multitude of advantages in informing on the chemical authorized products, having as an access and ordering criteria the chemical producer company, the product denomination, its class, the application method, the chemical basis of the product, the active matter and the PH. The data basis also justifies the utility of its need by presentation of the chemical products used in the conventional processes of transforming the hides in finished leathers. This represents also a possibility in exploring the best practices in both, the management system of environment and ways of substitution of the chemical substances or working techniques, for each technological step aside, meaning the curing and stocking of the hides, soaking-liming, tanning, re-tanning, finishing, air emissions, all this justifying the motifs that makes these sustainability strategies needed to be implemented.

Table 2: Selection criteria of the data basis for sustainable technologies in leather industry

Citation order criterion	Chemical processing products	Chemical substances (conventional processes)	The best practices.	
Selection's option	Producer	Salt	Environmental system's management	
	Product	Sulfates	Substance's replacement	
	Clasa de produși chimici	Sulfides	Water consumption's reduction	
	Application	Nitrogen	Curing and storage	
	Major basis	Tanning agents	Beam house	
	Active matter	Organic solvents	Tanning	
	ph	Surfactants		Re-tanning
		Fat liquors		Finishing
		Other re-tanning agents		Air emissions
		Dyestuffs and dye auxiliaries		
		Finishing products		
		Biocides		
		Pesticides		

4. Conclusions

These data were obtained through social dialogue, implemented by the social partners of the European leather industry: industrial COTANCE and industry All-European Trade Union; no other sector involved in the leather value chain has ever prepared such a comprehensive analysis of the environmental and social factors that are involved in the economic growth of the industry at continental level.

The situation that emerges from the analysis of the information collected shows a leather sector is firmly rooted in the territory and deeply committed - in collaboration with partners and public authorities to combining industrial growth with the continuous improvement of working conditions, the generation of wealth in the territory and the enhancement of the quality of life in local communities.

The social situation within the tanneries is characterized, above all, by the fruitful cooperation between the social partners. Apart from the institutional role that the representative bodies of the social dialogue play during collective negotiations, both sides of the European tanning sector also provide the example of how a close cooperation contributes to reinforcing Europe's leather industry against global competition, and to promoting the social values linked to European leather on global markets.

All the efforts made by European tanneries over the years have resulted in improving the sustainability of their production. The excellent results achieved deserve to be valued

more by stakeholders and better incentivized through measures encouraging new and future investments. The environmental and social values demonstrated by European leather help to keep European tanners ahead of international competition.

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