CHAPTER- IV
PRODUCTION PATTERN OF LEATHER INDUSTRY IN INDIA

Leather is one of the most widely traded commodities globally. The growth in demand for leather is driven by the fashion industry, especially footwear. Apart from this, furniture and interior design industries, as well as the automotive industry also demand leather. The leather industry has a place of prominence in the Indian economy due to substantial export earnings and growth. The Indian leather industry accounts for around 12.93 % of the world’s leather production of hides/skins. The country ranks second in terms of footwear and leather garments production in the world and accounts for 9.57 % of the world’s footwear production\(^1\).

The leather industry relies on by-products of the meat and dairy industries for over 95% of its raw materials. Consequently, raw material supplies reflected population growth throughout the 20th century. The ratio of cattle populations (by far the primary source of leather raw material) and leather produced to the size of human populations has remained remarkably steady for the last one hundred years. The supply of leather raw material depends on the world’s demand for meat which has grown dramatically over the last three decades in many parts of the world, although it has remained flat in Africa.

\(^1\) Production process technique retrieved from www.cle.org accessed on Jan 2015.
The growth of poultry and pork consumption has been stronger in many developing economies, including China, and the increase in the consumption of pork has been almost completely related to changes in China.

Hence, an attempt has been made in this chapter, to analyse the “Production structure of leather industry, raw material availability, production process, production of leather products, Tanning & Finishing process of Leather, Status of Livestock opportunities and Challenges faced by Indian Tanneries”.

4.1 Leather

Leather is a durable and flexible material created by the tanning of animal rawhide and skin, often cattle hide. It can be produced through manufacturing processes ranging from cottage industry to heavy industry.

Leather is used for various purposes including clothing (e.g. shoes, hats, jackets, skirts, trousers and belts), bookbinding, leather wallpaper, and as a furniture covering. It is produced in a wide variety of types and styles and is decorated by a wide range of techniques. This chapter included that Structure of Leather Industry,

4.2 Structure of Indian Leather Industry

Important aspects of the industrial structure can be categorized into product segments and structural components. In the following sections we analyze these two aspects separately.

4.2.1 The Product Segments

The Indian leather industry comprising of both organized and unorganized sector, produces wide range of leather products. The organized sector of leather products broadly
consists of tanning and dressing of leather (NIC Code- 1911), manufacturing luggage, handbags saddlery, harness (NIC Code-1912) and footwear (NIC Code-1920). However, the unorganized sector along with the above broad category of leather products produces a number of other leather items. In order to have a clear picture of the industry we focus on four major items produced by the Indian leather industry. These four items constitute the various product segments of the Indian leather industry.

- Leather footwear
- Leather footwear components
- Leather garments
- Leather goods

4.2.1.1 Leather Footwear:

Among the above mentioned product segments, the footwear segment is the pride of Indian leather industry. It ranks second in the world, next to China. India is the world's second largest producer of footwear with estimated production of more than 2065 million pairs per annum. Huge domestic retail market 1950 million pairs (95%) are sold in domestic market. Footwear accounts for 45% share of total exports of leather products. The footwear product mix Gents 55%, Ladies 35%, and Children10%

Major production centers are Chennai, Delhi, Agra, Kanpur, Mumbai, Kolkata and Jalandhar. Most of the Indian manufacturers of modern footwear are already supplying to major brands in Europe and USA. In the last five years, the leather footwear and footwear component production increased by 60%. Interestingly, despite producing more of gents’ footwear India is major producer of ladies footwear in the world.

Though, the Leather Industry, (especially the Footwear industry) has made a strong contribution to the Indian economy, India's share in global trade remains as low as U.S. $30 billion. Being a labor intensive industry, its contribution to employment is significant.
which consists of a large chunk of illiterate workers. About 40% of employment is represented by unskilled workers indulged in table work operation in the assembly line. Minority community and lower caste people have their sole source of livelihood from collecting carcasses, skinning dead animals and tanning leather which also consist a large proportion of employment provided by leather industry.

4.2.1.2 Leather Footwear Components:

Leather footwear component is another important segment of the Indian leather industry. The product range in this segment includes shoe Uppers, Sandal Uppers, Moccasin Lasted Uppers, Unit soles, Insole and Sock Linings etc. which are mainly exported to UK, Germany, Italy, USA., France, Portugal, Switzerland, Spain, Netherlands and Austria. The important production centers for this segment are Agra, Ambur, Bangalore, Chennai, Delhi, Jallandhar, Kanpur and Mumbai.

4.2.1.3 Leather Garments:

The Leather Garment segment occupies a significant place in the Indian leather industry. The product classification of leather garments comprises of jackets, long coats, waist coats, shirts, pant/short, children garments, motorbike jackets, aprons and industrial leather garments.

Second largest producer and annual production capacity is 16 million pieces. Third largest global exporter accounts for 9% share of India’s total export Germany is a major export market for leather garments.

4.2.1.4 Leather Goods & Gloves:

The leather goods segment of Indian leather industry range from designer collections to personal leather accessories, comprising of a wide range of products. This product segment includes the products like bags, handbags, hand gloves, industrial gloves, wallets, brief cases, travel ware, belts, sports goods etc. Fifth largest global exporter with
production capacity 63 million pieces of leather articles, 52 million pairs of industrial gloves. The production of these items mainly takes place in large number of units located in Chennai, Kanpur and Calcutta.

4.2.1.5 Saddlery

This is a specialized market with a very specific clientele. Saddles and harness items belong to the luxury segment due to their time-consuming manufacturing process. They are hardly affected by fashion, so they can easily be made in countries with low labour costs. Annual production capacity is 12.50 million pieces of harness & saddler items. Accounts for 25% share of India’s total export\(^2\).

4.2.2 Production structure of Leather Industry in India

Unorganized sector plays a dominant role in the entire production of leather and leather products. The small scale, cottage and artisan sectors account for over 75 per cent of the total production. Though the small scale industries (SSI) are classified as organized sector most of them are in the unorganized sector. A contrast of product segments with the production structure of the leather industry in India reveals that while footwear production is undertaken both in large and small scale sectors, leather garments and other products are mainly produced in the small-scale sector. In fact, though footwear is produced both in the large and small scale sector, the small scale sector has almost 90 per cent share in the total production of footwear in India.

There are about 42,000 registered SSI units in India producing leather footwear. Location wise Indian leather industry can be divided into 5 regions namely, southern region, northern region, eastern region, western and central region\(^3\).

**Table- 4.1**

**Production Structure of Leather Industry in India**

<table>
<thead>
<tr>
<th>Year</th>
<th>Organized Sector</th>
<th>Unorganized Sector</th>
<th>Total output (Rs in Crores)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004-05</td>
<td>12401</td>
<td>14972</td>
<td>27373</td>
</tr>
<tr>
<td>2005-06</td>
<td>15406</td>
<td>15530</td>
<td>30936</td>
</tr>
<tr>
<td>2006-07</td>
<td>17482</td>
<td>17263</td>
<td>34745</td>
</tr>
<tr>
<td>2007-08</td>
<td>24392</td>
<td>19861</td>
<td>44253</td>
</tr>
<tr>
<td>2008-09</td>
<td>24828</td>
<td>19228</td>
<td>44056</td>
</tr>
<tr>
<td>2009-10</td>
<td>27017</td>
<td>20923</td>
<td>47940</td>
</tr>
</tbody>
</table>

**Source: National Account Statistics 2011**

The above table shows the production structure of leather Industry. The total output of organized and unorganized sector were moving forward during the year 2004-2008 like (Rs. 27373, 30936, 34745, 44253). Further, the production shows an increasing trend in the year 2009-10.

4.3 Minor and Major Clusters of Leather and leather products in India:

The concept of cluster development offers new insights into the potential role of MSMEs. It is estimated that there are about 400 MSME clusters in the country. A cluster may be defined as a local agglomeration of enterprises (mainly MSMEs) which produce and sell a range of related and complementary products and services. An example can be a localized leather industry, including leather tanning units, leather finishing units, leather goods producers, leather garment manufacturers, designers, sub-contractors, Merchant, buyer and exporter.4

<table>
<thead>
<tr>
<th>The Minor clusters of Leather and Leather Products Clusters in India</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andhra Pradesh</td>
</tr>
<tr>
<td>Assam</td>
</tr>
<tr>
<td>Madhya Pradesh</td>
</tr>
<tr>
<td>Bihar</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The Major clusters of Leather and Leather Products in India</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uttar Pradesh</td>
</tr>
<tr>
<td>Tamil Nadu</td>
</tr>
<tr>
<td>West Bengal</td>
</tr>
<tr>
<td>Maharashtra</td>
</tr>
<tr>
<td>New Delhi</td>
</tr>
<tr>
<td>Haryana</td>
</tr>
<tr>
<td>Karnataka</td>
</tr>
<tr>
<td>Punjab</td>
</tr>
<tr>
<td>Rajasthan</td>
</tr>
</tbody>
</table>

### 4.4 Production base of Leather Industry:

The production base of leather and leather products in the country is presented below table

#### Table – 4.2

**Sector/Product-wise Major Production Units**

<table>
<thead>
<tr>
<th>Sector/Product</th>
<th>Estimated Annual Production Capacity</th>
<th>Household, Tiny and Cottage Industry</th>
<th>Small- scale Sector</th>
<th>Medium &amp; Large- scale Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tanneries-leather</td>
<td>2.5 billion Sq.ft</td>
<td>10%</td>
<td>35%</td>
<td>55%</td>
</tr>
<tr>
<td>Leather footwear</td>
<td>1009 million</td>
<td>60%</td>
<td>25%</td>
<td>15%</td>
</tr>
<tr>
<td>Garments and outerwear</td>
<td>20 million pieces</td>
<td>Nil</td>
<td>95%</td>
<td>5%</td>
</tr>
<tr>
<td>Leather goods</td>
<td>120 million pieces</td>
<td>10%</td>
<td>85%</td>
<td>5%</td>
</tr>
<tr>
<td>Saddlery &amp; harness</td>
<td>12 million pieces</td>
<td>40%</td>
<td>60%</td>
<td>Nil</td>
</tr>
</tbody>
</table>

Source: [www.siadipp.nic.in](http://www.siadipp.nic.in)

Moreover, nearly 70% of the leather sector is comprised of small-scale firms, although there also exists a significant number of medium and large-sized firms in all segments of the industry. The Indian leather industry is spread in about six key segments: (i) tanning and finishing; (ii) leather footwear; (iii) footwear components; (iv); leather garments; (V) leather goods; and (Vi) saddlery and harness. The footwear and saddlery and harness segments have the highest shares of the household, tiny and cottage sector.
In the tanneries segment, the presence of the medium and large-scale sector is the strongest with a share of 55%. The presence of small-scale units is the highest at 95% in garments, followed by leather goods, saddlery and harness.

A small scale industrial unit is one where the investment in plant and machinery does not exceed Rs. 10 million\(^5\).

**4.5 Leather Industry Segments:**

Leather industry consists of three segments:

- Those who produce hides and skins by animal husbandry and slaughtering.
- The tanning industry- Leather Production segment.
- Leather products industry – Shoes, garments, upholstery gloving and leather goods.

**4.5.1 Components of Leather Industry:**

**4.5.1.1 Status of Livestock in India**

India is the leading livestock holding country in the world. It ranks first in the case of cattle (including buffaloes), second in goats and fourth in the case of sheep. India has a pre domineer share of buffaloes. While buffaloes and goats have recorded annual growth rates of 1.86% and 3.11% respectively, cattle and sheep have recorded a marginal growth rate of 0.52%. Hides and skins are the basic raw materials. Trends in the livestock population and its management; rate of mortality of animals and meat consumption pattern greatly influence the availability of hides and skins. Cattles, buffaloes, goats and sheep are the major sources of hides and skins.

The other sources are pigs, horses, camels and wild animals such as crocodiles, snakes, foxes, etc. However, processing and use of wild animal skins is prohibited due to ecological reasons.

Table – 4.3

Share % of Leather by animals Type

<table>
<thead>
<tr>
<th>Animals</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bovine</td>
<td>65%</td>
</tr>
<tr>
<td>Goat</td>
<td>8%</td>
</tr>
<tr>
<td>Pig</td>
<td>11%</td>
</tr>
<tr>
<td>Sheep</td>
<td>16%</td>
</tr>
</tbody>
</table>

Source: Industry Estimates

Figure- 4.1
Share % of Leather by animal type

Indian’s population of livestock, cattle (cows and bulls), buffalo, sheep and goat is constantly increasing. The large population of cattle, buffalo, sheep and goat gives Indian an edge in the international markets of leather and products which are backed by introduction of latest tanning technologies to produce quality leather for the manufacture of many value-added products.

4.5.1.2 Sources of Slaughter houses:

Mostly export oriented private slaughter houses producing Buffalo and Sheep meat, Eg. Al-Kabir, Allana Sons, Hind Agro

1. These abattoirs account for 10% of buff hides. Urban Slaughter houses are controlled by the Local Bodies
2. Slaughter Houses 300 (in Taluk, District and State Capitals)
3. Urban slaughter accounts for ~ 60% of the slaughtered Hides and Skins
4. Rural slaughter- Taking place in almost all villages (6 Lakhs), Accounting for 40% of the Hides and Skins.

4.5.1.3 Raw Material Availability:

The system of collecting hides and skins in India is quite practices followed in other industrialised countries of the world. A well established network of butchers, animal breeders, small and big traders, agents, weekly markets and major markets exists across the country.

Tamil Nadu accounts for more than 60% of the tanning done in the country, with tanners from the state sourcing the bulk of their raw material from other states. They have agents in different parts of the country and the major markets for hides and skins are Vijayanagaram (Andhra Pradesh), Guwahati (Assam), Darbhanga (Bihar), Jabalpore (Chattisgarh), Ahmedabad, Rajkot and Bahaich (Gujarat), Srinagar and Jammu (Jammu and Kashmir), Trivandrum, Thrissur, Cochin and Calicut, Ernakulam
(Kerala), Bhopal, Indore, Gwalior (Madhya Pradesh), Mumbai and Sholapur (Maharashtra), Jaipur (Rajasthan), Trichy, Pollachi, Erode and Chennai (Tamil Nadu), Kanpur and (Uttar Pradesh), Kolkata (West Bengal) and Delhi. Large traders in major market have their agents in small feeder towns and villages. They receive hides and skins from villages either through their sub agents or directly from butchers.

Animal husbandry has available quality of raw materials, thereby promoting export of leather products from the country. Increased requirements of leather can be met to a larger extent through ensuring utilization of optimum capacity of the tanneries by way of modernization and technology up-gradation. Likewise preventing the loss of essential raw materials namely hides and skins by ensuring better flogging techniques and better recovery of hides and skins from the fallen and slaughtered animals and also by having professional and transparent supply chain of hides, skins and leathers, the availability of leathers can be enhanced.

4.5.2. Tanning Industry in India:

There has been a major change in the complexion of tanning industry during the last few decades. The organized tanning sector has gained significance in the industrial process and grown in Tamil Nadu, West Bengal and Uttar Pradesh. With the power of technology and resources, the organized sector is able to mobilize the raw hides from the entire country.


However the industry is established in a few pockets in the states of Tamil Nadu, West Bengal due to the presence of tanning operations from the British period and proximity to the port. The process of transformation has been faster since 1973 and tanning industry has grown in clusters of Tamil Nadu, West Bengal, Uttar Pradesh and Punjab. Annual production of tanning sector about 3 billion Sq.ft Accounts for 10% world leather requirement. Indian colors continuously being selected at the MODEEUROPE congress\(^9\).

4.5.3 Manufacturing of Leather

Tanning & Finishing Process

Tanning is the process by which raw animal hides are converted into leather. During this process, the leather is made resistant to biological decay by stabilizing the collagen structure of the hide, using natural or synthetic chemicals. The process involves several stages, viz: The first stage is the preparation for tanning.

The second stage is the actual tanning and other chemical treatment. The third stage, known as retanning, applies retanning agents and dyes to the material to provide the physical strength and properties desired depending on the end product\(^10\).


Flow Chart for Leather Processing

Hides & skins

Curing

Soaking

Liming

Deliming

Bating

Depickling

Pickling

Mineral Tanning

Vegetable Tanning

Neutralization

Splitting

Retanning

Dyeing

Finished Leather
4.6 Production of Leather Products in India

The following table shows the trend of production of leather products from the year 2012 to 2018. These data were analysed by using trend value method. It reflects trend value of the year 2012 -2018 and the estimated production of leather products for the year 2025 is arrived by using the trend factor.

Table-4.4
Trend value of leather production during 2012-2018

<table>
<thead>
<tr>
<th>Year</th>
<th>Production (In Crores)</th>
<th>Deviation from 2015 X</th>
<th>X²</th>
<th>XY</th>
<th>Trend Value Yc</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>22006</td>
<td>-3</td>
<td>9</td>
<td>-66018</td>
<td>20435</td>
</tr>
<tr>
<td>2013</td>
<td>25307</td>
<td>-2</td>
<td>4</td>
<td>-50614</td>
<td>25220</td>
</tr>
<tr>
<td>2014</td>
<td>29103</td>
<td>-1</td>
<td>1</td>
<td>-29103</td>
<td>30005</td>
</tr>
<tr>
<td>2015</td>
<td>33468</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>34790</td>
</tr>
<tr>
<td>2016</td>
<td>38486</td>
<td>1</td>
<td>1</td>
<td>38486</td>
<td>39575</td>
</tr>
<tr>
<td>2017</td>
<td>44262</td>
<td>2</td>
<td>4</td>
<td>88524</td>
<td>44360</td>
</tr>
<tr>
<td>2018</td>
<td>50901</td>
<td>3</td>
<td>9</td>
<td>152703</td>
<td>49145</td>
</tr>
</tbody>
</table>

\[ \sum Y = 243533 \quad \sum X = 0 \quad \sum X^2 = 28 \quad \sum XY = 133978 \]
Trend Value $Y_c = a + bx$

\[ a = \frac{\sum Y}{N}, \quad b = \frac{\sum XY}{\sum X^2} \]

\[ a = \frac{243533}{7} \quad b = \frac{133978}{28} \]

\[ = 34790.42 \quad = 4785 \]

Trend value calculations:

- **In the year 2012**: $34790 + 4785(-3) = 20435$
- **In the year 2013**: $34790 + 4785(-2) = 25220$
- **In the year 2014**: $34790 + 4785(-1) = 30005$
- **In the year 2015**: $34790 + 4785(0) = 34790$
- **In the year 2016**: $34790 + 4785(1) = 39575$
- **In the year 2017**: $34790 + 4785(2) = 44360$
- **In the year 2018**: $34790 + 4785(3) = 49145$

*Trend value of leather products during 2012-2018 is moving forward.*

*Estimated production of leather products for the year 2025 will be 82640.*
4.7 Opportunities for leather production:

The following opportunities help to increase the leather production:

- **Government Support**

  The Indian Government has placed an emphasis on the Utilization of the available raw materials to maximize returns. It has introduced a number of initiatives, with the special emphasis on integrated development of the tanning sector. These have included raw material augmentation, technology upgrade, and promotion of environmental cleaner processing options, quality standardization and human skills development. To encourage training of unorganized artisan workers, the Government has given support to well equipped training institutions to encourage training programmes to be given jointly with reputed foreign enterprises and experts.
Licensing Policy

After de-reservation of 11 items in leather sector, which include semi-finished hides and skins, leather shoes, leather washers and laces, molded rubber soles and heels for footwear, flexible polyurethane foam, polyurethane shoes soles, show-tacks & eyelets and leather pickers and other leather accessories for textile industry, vide Notification No SO 603(E) dated 29th June, 2001, no industrial license is required for manufacture of most of the items of the leather industry. However, the location of industrial projects will be subject to Central or State environmental laws and regulations including local zoning and land use laws and regulations. Industrial undertakings desiring to set up industrial undertakings for manufacture of these items have to only file an Industrial Entrepreneurs' Memorandum (IEM), in the prescribed format, with requisite fees to Secretariat for Industrial Assistance in the Department of Industrial Policy & Promotion, Government of India, Udyog Bhawan, New Delhi.

Some of the items of the Leather industry viz. leather shoe uppers (closed), leather sandals and chappals, leather garments, industrial leather gloves, leather suitcase and travel goods, leather purses and hand bag, fancy leather goods and novelty items, watch straps and leather straps of all types are still reserved for exclusive manufacture by the small scale sector. Small scale sector units are defined in terms of investment in plant and machinery. Non-small scale units can manufacture these items after obtaining industrial license, which is granted subject to an export obligation of 50 percent production in each year.
4.8 Challenges faced by the Indian Tanneries:

The following challenges faced by the Indian Tanneries,

✓ Increased cost of production per unit area of finished leather due to stringent environmental norms
✓ Expansion of production capacities – issue in Tamil Nadu due to local laws, despite compliance
✓ Increasing demand of raw material – raw hides, skins and semi finished leathers
✓ Low level of technology in small tanneries
✓ No specific dedicated industrial areas for leather sector in few States
✓ Poor capacity utilization in most tanneries leading to higher financial cost and overheads\textsuperscript{11}.

4.9 Conclusion:

This chapter reflects the production pattern of leather products in India. Nowadays leather products are most profitable product in the world. So, government gives more subsidies to increase leather production. From the year 2012 to 2018 production of leather shows higher trend. Then the estimated production (Projection) of leather products for the year 2025 also shows an increasing trend, which indicate that the leather industry has good potential in future.

\textsuperscript{11} Indian Leather Sector Network Report Sector Overview and SWOT Analysis – within the initiative sustainable industrial networks and its applications on Micro Regional Environment planning (SINET) accessed on June 2016.