CHAPTER 7

ECONOMIC ORGANISATION IN TWO PROMINENT LEATHER CLUSTERS IN INDIA

7.1 Background

Chapter 4 on the historical evolution of the industry attempted to relate organisational structure in the leather industry in the colonial period to the nature of demand and the social structure that the industry has been embedded in. Chapters 5 and 6 looked at the aggregate structure and performance and export performance respectively of the sector over more than two decades. This chapter seeks to map the economic organisational structure of the industry at present through a study of two major clusters where leather and leather product production has been concentrated, viz. Calcutta and Madras. In Chapter 3, the major kinds of enterprises in the tannery and product making segment were identified, as well as the position that they occupy in the production and marketing chain in the industry. In this chapter, a detailed analysis of how production is organised in eight out of these kinds of enterprises is analysed. The analysis is done in terms of trying to find answers to a set of questions, some of which emanate directly from the literature surveyed in Chapter 2, and others from the aggregate picture of the industry obtained from the previous two chapters.

It may be recalled that Chapters 5 and 6 showed the following:

(a) The organised (registered) factory sector grew and the unorganised (unregistered) non-factory sector shrank in terms of numbers of units and employment whereas output originating from both grew substantially, indicating increases in productivity, especially in the nineties.

(b) However, the decline in the non-factory sector did not mean a fall in unorganised activity as such, and only indicated a change in the size composition of the unorganised sector. In the non-factory sector, there was a decline in single person based units and a relative increase in scale in terms of employment generating a tendency towards a larger size composition. Thus, although there was a decline in overall numbers of enterprises and people employed in the unregistered sector there appears to be a process of informalisation that has taken place in terms of the growth of unregistered enterprises producing newer manufactures in the industry, particularly
leather goods. The growth in the relatively larger categories of unregistered enterprises appears to have taken place simultaneously with the growth of the formal sector.

(c) In the factory sector, there was a relative decline in tanning as an activity accompanied by an increase in value-added activities, reflecting the emphasis of the export thrust. At the industry level, there was also a significant increase in mechanisation as well as scales of operation in the industry, which was however not matched by an increase in employment per unit, with the latter being marginal. At the level of specific segments, the increase in scale has come about by adding more machinery relative to employing more people in tanning and footwear making, whereas it has come with greater employment generation as well as mechanisation for leather garment making and more employment generation but less of an increase in mechanisation in leather good manufacture.

(d) As far as export performance is concerned, with the passing of the export trade control order of 1973 that laid out the first guidelines for the development of exports in keeping with trends in the international market, as well as the need for indigenous development of the industry, the structure of exports from the sector underwent major transformation, reflected in changes in the commodity composition as well as country composition of exports.

(e) Over the years, in keeping with the thrust in policy, the export basket within leather and leather products has been moving towards more and more value-added manufactures, reflected in the gradual decline of raw and semi-finished hides and skins, finished leather and that of footwear components over different phases, accompanied by the increasing importance of full footwear, leather goods and leather garments in the total. However, these categories have not been able to capture similar world shares as earlier categories and actually translate the change in the commodity composition in terms of a spurt in exports. In fact, over the period in which the change in commodity composition has been most apparent, i.e. the nineties, rates of growth have been much lower than earlier, and specifically for these newer categories of value-added manufactures.

(f) Over the period from 1977-78 to 2000-01, when policy changes introduced greater and greater value addition over different phases, both in absolute as well as in relative terms, leather and leather products did not do very well in exports, in spite of being a thrust sector for exports.
While several developing countries were able to take advantage of the opportunities presented and expand shares in various segments of the international market. India was not able to expand its presence in any segment and actually lost share to other developing countries.

This chapter attempts to examine these aggregate findings from field-level information and also seeks to contextualise them by linking them to the phenomenon of clustering. As part of this, the following questions are addressed specifically:

1) What is the extent of clustering in the two clusters being considered- i.e., what is the range in terms of enterprises, stages of the production process, producer and ancillary services, and size of enterprises? In other words, what is the size and depth of the clusters?¹

2) What are the different kinds of organisational forms that exist in the clusters? What determines the variety observed and the differences? Can the organisational forms be distinguished on the basis of the formal sector-informal sector distinction?²

3) What determines the size of factories, i.e., why are most units in the industry small? Is it a consequence only of policies such as reservation for the small scale sector or does it have something to do with the nature of production in the industry? In other words, does the nature of the markets catered to or the kind of techniques used in the industry warrant a particular kind of size configuration? What is the link between size and the degree of mechanisation in the industry? Is there a link between size and the degree of technology acquisition/upgradation? Is this in turn also connected to the nature of markets catered to? What determines the choice of products and the degree of concentration of production in a single firm? Why have firms gone in for either vertical integration or decentralised

¹ It may be recalled from Chapter 2 that large numbers of industrial clusters of the ones researched have a range of intermediate good producers, ancillary activities and services offering industry-specific skills in addition to the firms producing the products that the cluster specialises in.

² Again it may be recalled from Chapter 2 that the notion of the informal sector has influenced the discussion on industrialisation strategies significantly and is also part of the discussion on industrial clusters. While it is obvious that in an old industry such as the leather industry, the informal sector does exist in the form of large numbers of unregistered enterprises, as Chapter 5 showed, the nature and process of informalisation are what are being examined here.
production as the case may be in the industry? Is there a link between size and the
degree of vertical integration? 3

4) What is the extent of inter-firm linkages, vertical and horizontal, as well as inter-
firm division of labour and how have these changed over time? 4

5) How have these organisational forms changed in response to changing market
conditions and policy over time? 5 Can the structure be characterised as a flexible
one?

6) What are the different patterns of labour market structures and labour processes?
What is segmentation determined by? What economic consequences do they
generate? 6 How does the labour market contribute to the flexibility seen in
production organisation?

7) What are the ways in which social institutions such as caste and family affected
organisational structure as well as modes of responding to new markets, new
technology, etc? Have advances in the productive sphere been associated with the
breaking down of such institutions? 7

8) Have the clusters undergone technology upgradation through innovation as in
clusters in many parts of the world? 8

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3 In the industrial clustering literature, it has been seen how in flexibly organised production
arrangements, small size ceased to be an issue because firms clustered together could by linking up
with each other suitably obtain the advantages of size.

4 Inter-firm linkages form one of the cornerstones of successful clustering experiences, as has been seen
and the difference between a successful and non-successful cluster might depend crucially on the
nature and extent of inter-firm linkages. It has been noted before that inter-firm linkages form the
cornerstone of Schmitz's 'collective efficiency' concept that has been crucial in the literature on
clustering.

5 In many clusters, the literature shows that organisational forms changed
significantly due to a shift from domestic to export production and this was reflected in the kinds of inter-firm linkages that
existed and evolved in the clusters.

An important aspect of policy relating to clusters has to do with the idea of fostering cluster
development consciously as against the spontaneous growth of firms in the cluster.

6 This question seeks a substantiation of a trend observed in Chapter 5: that of a growth of the informal
sector in export oriented parts of the sector in the eighties and nineties.

7 This is with reference to characteristics seen in the classic industrial districts of Europe as well as to
the argument about the leather industry that has been presented in Banerjee and Nihila (1999). The
latter argue that there is a significant difference between the two clusters Madras and Calcutta in the
way in which social relations, or 'the deadweight of outmoded institutions' has affected production as
well as export performance in Madras and Calcutta. It is held that the Madras industry has broken the
stranglehold of such social institutions and modernised effectively, thus being able to export
successfully, whereas the Calcutta industry has been weighed down by this deadweight and has not
been able to take advantage of the challenges posed by the international market.

8 It has been noted in Chapter 2 that small enterprises functioning in clusters find it easy to undertake
incremental, or small innovations that upgrade capacities over time, and which generate significant
increases in productivity in the industries in which clustering has been common. On the other hand, the
experience of clusters in different developing countries shows the incidence of radical innovations,
9) What has the role played by government and such institutions been in the clusters and the industry?  

10) How can the two important clusters in the industry be characterised?

In order to look at the above, it was necessary to delineate which actors/agents and their activities are being analysed. As Chapter 3 showed, the sector consists of the following distinct segments: the segment generating the raw material, the segment involving the main manufacturing processes, and the segment involving the external agents, i.e., buyers of final products, institutions, government, etc. Economic organisation in the sector as a whole has to look at the behaviour of agents and entities in all three segments. This chapter examines essentially the second segment, which consists of the various kinds of producing firms from tanning to product making and constitutes the 'production core' of the sector. In this segment, questions of what determines size and scales of production, decisions regarding whether firms will make or buy, vertical integration, etc are crucial and the main agents are the workers and the entrepreneurs of enterprises. While relationships with input suppliers for firms in all stages of the production process are important and are being analysed, the issues relating to raw material availability from remote villages, their links with social hierarchies and the entrenched networks of raw material suppliers are crucial in determining which enterprises have access to quality raw material in turn affecting, quality, raw material collection practices by firms such as buying depots, etc. This falls outside the ambit of examining the relations between enterprises and what they are based on. Similarly, the kind of market segment being served and who the agents that represent that market segment are, influences the way production is organised to cater to that demand. While this is crucial and represents an important 'boundary

which involve discrete productivity increases and the use of new technology, to be specific to particular clusters and not generally being observed as a phenomenon of clustering.

9 The role of the State, has been a crucial element of the development of Italian industrial districts, as Chapter 2 showed. In the Indian leather industry, it has been seen in both Chapter 3 and 4 that the State has taken a keen interest in the industry through the development of an institutional structure to cater to technological and other needs from colonial times. In this chapter, the way in which individual enterprises relate to policy steps or the state will be examined to assess the role that the state has played in the context of the clustering literature.

10 Briefly, the question that is usually asked is whether clusters are merely survival clusters or have evolved along any of the trajectories observed in the literature, i.e., to the Italianate kind, the hub-and-spoke kind or satellite kind. Another way to look at clusters evolution is to see whether they are the low road or high road variety in terms of returns to labour. (Pyke and Sengenberger (1992), Knorringa 2002).
condition for production, it again goes outside the ambit of the analysis of the 'production core' that is crucial to understanding the importance of clustering. This chapter, while essentially looking at the features of organisation in the 'production core', also considers these backward and forward linkages in the two clusters.

The chapter is structured as follows: First, Section 7.2 introduces why Madras and Calcutta were chosen as the centres for analysis. Section 7.3 provides a description of the two clusters, the composition of, the kinds and numbers of the different kinds of enterprises in different segments, as well as their capacities, (i.e., the width and depth of the clusters). Section 7.4 outlines the methodology used in collecting the information for the fieldwork. Section 7.5 presents the results of the fieldwork in terms of the organisational issues raised in 7.1.

7.2 Why Calcutta and Madras.

Tables 7.1 and 7.2 show the distribution of tanneries and product making units among the different important clusters all over the country.

<table>
<thead>
<tr>
<th>Name of Cluster</th>
<th>No. of Units</th>
<th>Status of Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>Small Scale</td>
</tr>
<tr>
<td>Madras</td>
<td>113</td>
<td>107</td>
</tr>
<tr>
<td>Vaniyambadi</td>
<td>101</td>
<td>97</td>
</tr>
<tr>
<td>Ranipet</td>
<td>94</td>
<td>84</td>
</tr>
<tr>
<td>Ambur</td>
<td>74</td>
<td>61</td>
</tr>
<tr>
<td>Dindigul</td>
<td>49</td>
<td>48</td>
</tr>
<tr>
<td>Pernambut</td>
<td>44</td>
<td>44</td>
</tr>
<tr>
<td>Erode</td>
<td>41</td>
<td>40</td>
</tr>
<tr>
<td>Trichy</td>
<td>27</td>
<td>26</td>
</tr>
<tr>
<td>Calcutta</td>
<td>233</td>
<td>227</td>
</tr>
<tr>
<td>Kanpur</td>
<td>133</td>
<td>127</td>
</tr>
<tr>
<td>Agra</td>
<td>10</td>
<td>9</td>
</tr>
</tbody>
</table>


Knorringa (1996) in a study of the Agra footwear cluster argues that the relationship between producers and marketing agents is the most crucial ingredient that determines how production is organised and the reason for this is that small scale manufacturing enterprises are faced with marketing as their biggest constraint and thus those who have control over market channels become very important in determining what will be produced in the cluster and how.
Table 7.2 Clusterwise distribution of leather product making units.

<table>
<thead>
<tr>
<th>Name of Cluster</th>
<th>Footwear</th>
<th>Leather Garments</th>
<th>Leather Goods</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Small</td>
<td>Large/ Medium</td>
<td>Small</td>
</tr>
<tr>
<td></td>
<td>Scale</td>
<td>Scale</td>
<td>Scale</td>
</tr>
<tr>
<td>Ambur</td>
<td>18</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Vaniyambadi</td>
<td>20</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Ranipet</td>
<td>61</td>
<td>22</td>
<td>145</td>
</tr>
<tr>
<td>Madras</td>
<td>26</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>Delhi</td>
<td>2</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>Mumbai</td>
<td>71</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Agra</td>
<td>40</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Kanpur</td>
<td>9</td>
<td>1</td>
<td>22</td>
</tr>
<tr>
<td>Calcutta</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


It is clear from the tables above that both Madras and Calcutta are important centres of both tanning as well as product making. Madras has a high concentration of tanneries, footwear units, leather garment as well as leather goods units, whereas Calcutta has a high concentration of tanneries, household footwear units, and leather goods units. Two major clusters in Uttar Pradesh, i.e., Kanpur and Agra, almost exclusively consist of either mostly tanneries (Kanpur, with fewer numbers of product making units), or mostly product making units (Agra, which consists almost entirely of product making units and hardly any tanneries). 

This study chose Madras and Calcutta because they are both representative of the industry, in the sense that all stages of leather and leather product production are done in these two clusters. The other clusters (except for Kanpur) specialise relatively in tanning or product making respectively or, as in the case of Agra, in producing one kind of product, i.e., footwear. They have also existed as important centres ever since leather work became

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12 The CLRI conducted two surveys of the tannery and product making segment in 1987 and 1997 respectively to investigate the nature of activity in the two segments and to get a realistic picture of the size of the segments.
an important economic activity catering to colonial trade, as the chapter on historical evolution showed. In addition, landmark developments, both historically and in more recent times, have impacted significantly on production and organisational structure in both these clusters\(^\text{13}\). While there are similarities between Madras and Calcutta in terms of their relative composition and pattern of growth, there are interesting contrasts in terms of the social composition of the agents in the industry. Also, social relations affect economic activity crucially, as seen in clusters in many parts of the world. This is another reason why these two clusters were chosen, as they provide fairly distinct patterns of the interaction between social institutions and economic activity. Within the industry as well as in available research on the industry, comparing and contrasting these two clusters is routine and often questions are raised as to which cluster’s productive performance has been better and where organisational structures have been more efficient.\(^\text{14}\)

7.3 A Description of the Two Clusters.

Tiljala, Tangra and Topsia are the three areas that constitute the Calcutta leather cluster and are distinguished from each other in terms of the ethnic identity of the owners of the tannery units situated there. Tiljala houses traditional vegetable tanning units that undertake both bag tanning as well as pit tanning, and these units are owned by Punjabi entrepreneurs who started these businesses more than 40 years ago\(^\text{15}\). Topsia contains tanneries owned mostly by North Indian Muslims whose families have been connected with leatherworking for generations through trade in raw hides. Tangra, or ‘chinapara’ (Chinatown in Bengali) houses tanneries owned by Chinese immigrants, many of whom owned shoe businesses in the city originally, or who arrived from China with traditional leatherworking skills and set up tanneries in the middle of the twentieth century. Within product making, as Chapter 4 showed, a significant segment of shoe making units catering to the domestic market are owned by Chinese employing labour from Bihar. Product making units in the exporting sector, however, are not characterised necessarily by ownership or employment from any particular community.

\(^\text{13}\) As mentioned in Chapter 3, the most recent of these have been the Supreme Court directives to close down polluting tanneries in various clusters.

\(^\text{14}\) Such comparisons are present in Banerjee and Nihila (1999) as well as in various publications of the CLRI.

\(^\text{15}\) It may be recalled from Chapter 4 that these were some of the first units to get set up on an organised scale in the early part of the twentieth century.
Of these, the Tiljala tannery area has been in existence for eighty years or so, but the
growth in the number of units in the other areas has been subsequent to the industry
being declared a thrust area for exports in the sixties. This includes tanneries
producing chrome tanned leather as well as product making units. The latter are
spread across various parts of the city, including the above three areas. While there
are no direct estimates of the number of units or of employment, informal estimates,
obtained from interviews with trade union activists and experts in the industry put the
employment figures at 50,000, with tannery workers constituting 20000 or so, the
number of tanneries at 600 or so, and the numbers of product making units running
into thousands\textsuperscript{16}.

The cluster consists, apart from the production units in the tannery and product
making segments, also of input suppliers, warehouses for storing raw hides and skins,
workers' colonies and home-based and tiny units making local footwear and various
products out of waste material generated by the firms in the cluster. Banerjee and
Nihila note, "Over the last 60 to 80 years, the city of Calcutta has grown around this
maze, almost without being aware of its huge workforce, and their diverse
activities."\textsuperscript{17} It also has a College of Leather Technology located close to the cluster,
as well as offices of sectoral associations.

The leather industry in Tamil Nadu too has a long history going back to the middle of
the nineteenth century\textsuperscript{18}. The leather processing units are spread out in several clusters
in many districts in the state, but are mainly concentrated in North Arcot district\textsuperscript{19}. The Chromepet- Pallavaram cluster, where I did some of my fieldwork, is situated
some 15 kilometres away from the city’s municipal limits. Chromepet, as mentioned
earlier, which was part of Pallavaram, acquired its separate identity from a large

\textsuperscript{16} There is very little published material that provides the history of the cluster and almost no research
on production organization in the cluster. The only concrete that I could find was Banerjee and
Nihila(1995) and the rest of the information is discussions with industry experts and field observations.
\textsuperscript{17} Banerjee and Nihila (1999), p.151.
\textsuperscript{18} The leather industry in Tamil Nadu is a well researched area as far as aggregative as well as micro
level information is concerned for the period preceding the 1980s, unlike in Calcutta. Some of the
important studies, apart from Banerjee and Nihila (1999), are P.Usha (1984), Kennedy (1999) and
various reports of the CLRI.
\textsuperscript{19} These are the clusters of Ambur, Vaniyambadi, Pernambut, Melvisharam and Ranipet with these
consisting of about 600 tanneries (Kennedy 1999)
chrome factory which was set up there in the early part of the century. Today, Chromepet has a distinct identity of its own. The cluster consists of large numbers of tanneries and some shoemaking units. What I have called the Madras cluster includes the areas of Chromepet-Pallavaram, as well as parts of the city where product making units have been set up. As in Calcutta, the Chromepet-Pallavaram cluster consists of large numbers of input suppliers, repairing workshops and warehouses for storing raw hides and skins. In addition, the Madras cluster also has an office of the Labour Commissioner located near the Pallavaram cluster, as well as several branches of nationalised banks catering quite exclusively to the sector's credit needs. The Madras cluster, therefore, appears better regulated and more organised.

Unlike in Calcutta, it was hard to identify any particular ethnic identity of owners in the Madras cluster. If one were to consider the whole of Tamil Nadu, however, the most important leather businesses are in the hands of Muslim families, particularly in the North Arcot clusters.

There is an essential difference in the technology employed in Madras and Calcutta, with Madras having a larger number of units using modern technology and employing trained technicians than Calcutta, although there is a proliferation of small units using very few machines and employing only unskilled informal labour in both clusters.

The Madras cluster is exclusively export oriented, with units either exporting directly, or fabricating for exporters, or doing job work for export production, or selling to exporters. In Calcutta, however, both tanning as well as product making units cater to both the domestic and the export markets. Tanneries in Calcutta supply leather to product making units in Calcutta, to domestic and exporting product making units in Agra and to exporting units in Madras.

The tannery segment in Calcutta consists of large numbers of units doing all processing from the raw to the finishing stage, but the tannery segment in Madras consists mainly of firms undertaking tanning only from the wet blue stage\textsuperscript{20}. The

\textsuperscript{20} This is essentially because different parts of the tanning process have got split across different clusters in Tamil Nadu, with each cluster specializing in a particular segment. Because of the polluting
tanneries in Madras are connected to a common effluent treatment plant, whereas no such facility exists in Calcutta. In product making, Calcutta is better known for producing bags, wallets, travel goods and shoes in the lower price ranges, whereas Madras is well known for its expensive shoes and leather garments.

7.4 Fieldwork Methodology.

The fieldwork consisted of visits to various enterprises and detailed interviews with entrepreneurs and workers in the enterprises as a first step. The kinds of enterprises were selected on the basis of the typology of enterprises presented in Chapter 3. The following different kinds and numbers of enterprises were studied in detail:

Table 7.3: Enterprises covered in the fieldwork.

<table>
<thead>
<tr>
<th>Type of Unit</th>
<th>Number of Enterprises Studied</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A Tannery Segment</strong></td>
<td>Total</td>
</tr>
<tr>
<td>1. Traditional Tannery</td>
<td>6</td>
</tr>
<tr>
<td>2. Jobwork Tannery</td>
<td>8</td>
</tr>
<tr>
<td>3. Small Scale Independent Tannery</td>
<td>7</td>
</tr>
<tr>
<td>4. Medium and Large Scale Tannery</td>
<td>7</td>
</tr>
<tr>
<td><strong>B Leather Product-Making Segment</strong></td>
<td>8</td>
</tr>
<tr>
<td>1. Product Fabricators</td>
<td></td>
</tr>
<tr>
<td>2. Small scale Independent Producers</td>
<td>6</td>
</tr>
<tr>
<td>3. Small Scale Group Producers</td>
<td>5</td>
</tr>
<tr>
<td>4. Medium and Large Scale Product-Making Units</td>
<td>6</td>
</tr>
</tbody>
</table>

- The figure within brackets indicates the number of units located in other clusters whose owners were interviewed in Madras city.

Detailed interviews were done over three weeks each in August 1999 in Madras and December 1999-January 2000 in Calcutta. Prior to this, I visited Madras in April 1998 and Calcutta in June 1998 to make a general assessment of the kinds of units that exist in the clusters. A lot of the information that is presented in the tables in Chapter 3 was nature of tanning operations from the raw to the semi-finished stage these have been gradually phased out in the Madras cluster, due to its proximity to the city.
collected then. During these earlier visits, a large number of units in each category were visited, but a smaller number were shortlisted for detailed interviews which were done the following year. This was because it was seen that a lot of the information that was being collected at the enterprise level was repetitive, which is why the number of enterprises covered in detailed interviews in each segment was kept limited. This was also done because the purpose of this study is not to do detailed quantification but to arrive at an understanding of the nature of the phenomenon of clustering in the leather and leather products industry.

As the second step, trade union leaders and workers were interviewed in enterprises/segments where trade unions existed. Similarly, entrepreneurs who were actively involved in employers’ associations, those who were actively involved in setting up collective institutions such as Combined Effluent Treatment Plants (CETPs), and those who were office bearers of organisations such as the Council for Leather Exports or were also part of various committees set up by the Government, were interviewed. Finally, experts in the industry, such as scientists and economists working in the Central Leather Research Institute, private consultants, senior leather technologists, Government and UN officials, etc, who do not have a business involvement in the industry, but have a long association with it were also interviewed.

In addition to the interviews, secondary material was collected from the Central Leather Research Institute, the Council for Leather exports, industry associations and local bodies such as Combined Effluent Treatment Plants and trade union offices, which provided insights into the nature of collective bargaining, collective action on the part of enterprises, etc. These have been used as corroborative evidence to the responses/opinions provided in the interviews, on issues where concrete data was not available in any published or coherent form. The questionnaires that were used for interviews with entrepreneurs and workers and for general information are presented in Appendices 7.1-7.3.

In addition to the fieldwork in the two clusters, I also visited the site in Mandi district of Himachal Pradesh where a successful experiment in raw material procurement and trade has been in operation for about 15 years now, which enabled me to arrive at exact estimates of the links involved in raw material procurement. Appendix 7.4
provides information collected, which also formed the basis for some of the recommendations provided in Chapter 8.

7.5 **Aspects of Economic Organisation Covered in the Field Work.**

As mentioned earlier, fieldwork was done in order to examine, at a micro level, the main concern of this study, i.e., the relationship between clustering, organisational structure and performance in the leather and leather products industry in India. In addition, it was also done in order to try and examine many of the questions that have come up in literature on clusters in various parts of the world. The following specific aspects were looked into, in keeping with the questions posed earlier:

a) Age of the cluster and the various firms operating in it, and in particular the ones being studied

b) Nature of the unit, i.e., kind of ownership, whether small scale or not, whether nature of ownership and scale of operations have changed over time

c) The nature of the production process, degree of divisibility of operations, division of labour, the degree of mechanisation, extent of vertical integration

d) Capacities and utilisation of capacities in the enterprises operating in the different segments; whether capacities are internal to the firm or not, or flexible due to outsourcing, etc.

e) Input markets and relations between enterprises and input suppliers; the nature of backward linkages and the question of internalisation of input markets

f) Pricing in product markets- options available and the determinants of profitability

g) Output markets and the relations between enterprises and buyers; the nature of forward linkages and issues of forward integration

h) Availability of credit at a firm level in different segments

i) Employment profile and the nature of labour contracts, the nature of the labour market and remuneration patterns

j) Issues of unionisation and collective bargaining; the role of trade unions and employers' associations

k) Collective action and horizontal linkages between firms

l) Social embeddedness of economic relationships in the sector.
7.6 Economic Organisation in Madras and Calcutta.

7.6.1 Economic Organisation in the Tannery segment

7.6.1.1 Background.
This section looks at the activities of four different kinds of enterprises in the tannery segment. As the production chain in Chapter 3 showed, there are, at the broadest level, two types of tanning processes in existence, vegetable and chrome tanning. Both these processes can be split up into component sub-processes by the degree to which the raw material is processed and hence ready for conversion to final products. These sub-processes can be done under a single roof as part of a single firm’s activities or can be split up between enterprises. Thus, tanneries can be classified into the following types: Those that do tanning from the raw hides and skins stage to E.I tanning, from the raw to the wet blue stage, from the raw to the crust stage, from the E.I. stage to finished leather, the wet blue stage to finished leather, the crust stage to finished leather and the raw stage to finished leather, indicating different levels of vertical integration. In this section, firms doing vegetable tanning as well as those doing chrome tanning have been examined. Similarly, firms that specialise in particular sub-processes as well as those that undertake all the processes have been covered. In addition, those that cater exclusively to the export market as well those that serve the domestic market have been covered. Finally, firms of different sizes and those constituting different types of ownership patterns have been covered.

Table 7.4: Tannery Types Studied.

<table>
<thead>
<tr>
<th>Type of Tannery</th>
<th>Size Category</th>
<th>Type of Work Done</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vegetable Tannery</td>
<td>Small</td>
<td>Own work for local market*</td>
</tr>
<tr>
<td>Jobwork Tannery</td>
<td>Small</td>
<td>Jobwork on order for non-local market</td>
</tr>
<tr>
<td>Independent tannery</td>
<td>Small</td>
<td>Own work and jobwork on order for non-local market</td>
</tr>
<tr>
<td>Independent tannery-cum-</td>
<td>Medium and</td>
<td>Own work for non-local market</td>
</tr>
<tr>
<td>product making unit</td>
<td>large scale</td>
<td></td>
</tr>
</tbody>
</table>

*Local market refers to markets within the city that are not linked to domestic or international trade. Non-local markets refer to the domestic market and the international market.
Source: Fieldwork Information.

21 It may be recalled that Figure 3.1 provides a pictorial representation of these different stages.
22 There are firms exclusively engaged in vegetable tanning in Calcutta, as mentioned earlier. In both clusters, there are firms that combine some kinds of vegetable tanning with chrome tanning even as they are primarily chrome tanneries.
The first set of enterprises are small vegetable tanning units that are clustered together in the Tiljala area of the Calcutta cluster. This is probably the only instance of such enterprises existing within a leather cluster. Vegetable tanning, otherwise, is done all over the country but in a dispersed manner in rural areas. This set of enterprises was taken up for deeper analysis because a study of the Calcutta cluster would be incomplete without an analysis of the operations of these types of enterprises. Secondly, as the analysis will show, the working of this group of enterprises provides insights into intra-cluster linkages, i.e., between different distinct elements within a cluster, as well as segmentation. Thirdly, the history of the labour market and of the workers in this segment provides a background for analysing labour market structure, segmentation and wages in the sector as a whole. Finally, this set of enterprises represents a carryover from the colonial period and may be said to represent the kind of enterprise typical of the time when clustering began in terms of production organisation. From the clustering point of view, their analysis is important. Six enterprises were covered in detail in this study.

The second set of enterprises consists of jobwork tanneries working on orders from larger units which are situated at the bottom of the hierarchy in the production process for producing chrome tanned leather. If we compare this category of enterprises, i.e., jobwork tanneries with the traditional tanneries producing vegetable tanned leather, while the production process in both kinds of units is very different from each other, both are highly informal in nature as far as access to credit, employment and working conditions are concerned and, put together, account for the bulk of informal sector tanning enterprises. Taken together, therefore these two sets of enterprises give a good idea of the extent of the informal sector's presence in the tanning segment. Eight jobwork tanneries were studied in detail.

The third category consists of small scale independent chrome tanneries producing for both the domestic market as well as the export market. In Calcutta, very large numbers of such tanneries sell their products to exporters as well as domestic producers of footwear and leather products in Calcutta or in other clusters such as

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23 As mentioned earlier, this consists of the informal sector in the way in which it has been defined in India, essentially covering enterprises that belong to the unregistered manufacturing sector, and does not cover informal segments in the way in which they have been looked at in this study.

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Madras, Agra or Kanpur. Some in this category of tanneries export directly, sometimes exclusively, and sometimes in addition to providing to the domestic market. In Madras, these units mostly either export directly or sell finished leather to exporters of leather products. These enterprises do not usually supply to domestic producers in Madras. The small scale independent chrome tanneries would come under what has most often been referred to as the modern small-scale sector because of their degree of mechanisation, employment and organisation in a proper factory mode. Issues such as the extent of modernisation possible as well as the degree of vertical integration necessary for efficient scales are addressed with respect to this set of enterprises usually. Seven small scale independent tanneries were studied in detail.

The fourth category of units consists of medium and large scale tanneries as well as tannery-cum-product-making units that belong to the medium and large-scale sector. These units have been covered under tanneries and not under product making because of their origins and the fact that in most of these, tannery activity constitutes a major part of their overall production. This last category of units came up from small origins, sometimes as jobwork tanneries, and have integrated forward to product making such that the latter segment is as important as tannery activity. Today therefore, they do not come under the small scale sector but most of them have been so for many years. They come under the category of what are considered the successful firms in the industry and can be considered examples of what are referred to as 'leading firms' which grew as a result of clustering in the literature. Eleven enterprises were covered under this segment. The third and fourth category constitute the organised segment in tanning.

Appendix 7.5 provides a list of some of these firms and their exports for an idea of their relative scale of operations. Looking at this range of enterprises therefore

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24 Traditionally, the distinction is made between the traditional and the modern small scale sector on the basis of form of organisation, technology used and products produced.

25 The CLRl's Survey of Tanneries covers essentially these kinds of enterprises under its small scale segment and does not really look at the issues faced by the previous two categories of enterprises.

26 Some of the most prominent units in the industry in terms of size, mechanisation and exports belong to this category and are today better known for their product exports. They have been however covered under the tannery segment for the reason mentioned above.
enables a view of the entire range from the informal to the highly formal in terms of traditional definitions.

7.6.1.2 Habitat, Legal Status and Ownership.

Bagchi (1999) in a review of issues that are important in economic organisational studies in the Indian context holds that the type of habitat that exists in any industry is an important aspect that helps to characterise forms of organisation. He argues that in India, it is the coexistence of the bungalow (representing the habitat of representatives of transnational capital), the haveli (representing that of the Indian industrialist, trader, etc), and the chawl (representing that of the workers) that lends a "chaotic dynamic" to Indian economic organisation. It may also be recalled from Chapter 4 that change from individual enterprises to clusters came about through a major change in the type of production unit in the historical period and this was also seen as a change in type of habitat. Keeping the importance of habitat in mind, this sub-section looks at the type of unit in terms of legal status, habitat as well as type of ownership to judge whether different types merely co-exist by chance in a cluster or there are links between them. Legal status has been examined in order to judge whether the units are strictly in the formal or the informal sector.

Calcutta's traditional tanning units are housed in a specific area, Tiljala, of the cluster and these, numbering about 50-60, are small units that undertake primitive vegetable tanning to produce heavy leather that is ultimately used to produce cycle seats and soles for chappals. The tanneries are housed in the midst of a densely populated area that consists of slums, industrial units of various sorts, and the tanneries. Some of the units have been in existence for 70 years or so, much prior to the development of the leather industry in its present form all over the country. These units are not registered with any authority and have no legal status whatsoever.

Physically, it is difficult to distinguish one traditional Tiljala tannery from the other. Each tannery consists of a series of pits and slushy plain areas where various production operations are undertaken and these are separated from each other by mud.

28 None of the data published by the CLRI or any other agency even mention these enterprises, which are not officially considered part of the leather industry. As far as enumeration is concerned, they are most probably covered under NDMEs or DMEs in NSS surveys.
embankments. Adjoining tanneries are separated from each other by these same mud embankments and therefore are indistinguishable from each other. In terms of Bagchi's (1999) characterisation of typical habitats in the industrial scene in India, this is an example of the classic chawl, denoting the presence of a locus of poor workers and small scale entrepreneurs. None of the enterprises are registered with any authority and are therefore fully informal sector enterprises.

Jobwork tanneries that undertake chrome tanning exist in all major leather clusters in India and their exact numbers are not known. The massive increase in the numbers of Directory Manufacturing Establishments in the unorganised tanning segment that was seen in Chapter 5 may be composed of an increase in jobwork tanneries. Job working as a phenomenon emerged in this sector from the late seventies and got consolidated in the eighties and can be said to be a clear manifestation of the uncertain and volatile nature of demand that the industry faces. Jobwork refers to the phenomenon where a unit undertakes to do a certain part of the production process in response to specific orders from a larger unit with which it has a subcontracting relationship, i.e., the larger unit contracts out jobs to these units. Only a certain part of the production process or some parts are undertaken by units doing job-work.

Three types of job-work are possible. First, where a large unit rents out its own production capacities, i.e., its factory space and specific machines to job-workers who perform specific operations on the basis of orders from other larger units, using their own workers, raw materials, chemicals etc, with the larger unit earning the equivalent of a rent. Second, where small sheds are erected with one or a few machines by small entrepreneurs hiring some workers and specific tanning and finishing operations are done for larger units. Third, where the independent larger units themselves do jobwork for even larger units when demand for their independent production is slack and/or capacity is underutilised.

29 While there are several formal definitions of informal sector enterprises, one of the important aspects is legality of existence, where what is considered is whether they are registered with any authority or not.
30 The CLRI Tannery Survey found that of their total coverage, 21% of small scale units and 15% of DGTD units did exclusively jobwork, whereas another 26% in the small scale sector and 17% in the DGTD sector offered jobwork facilities along with their own production. This survey, however, covered only units that were reasonably large and outside the purview of the organised sector.
31 The latter are usually referred to as tenant tanners, and the former do this to utilise unused capacity either on a regular basis or when their own demand is slack.
Within the second category, which is the one that this section analyses\(^\text{32}\), I saw different ways in which jobworking takes place. In the first kind, there are workshops that do one or two of the tanning/finishing processes hiring their own workers and using their own machinery. This production organisation form is one that can be readily expanded into a factory form from a workshop with increases in scale. In the second kind, there were four or five enterprises functioning under the same roof, each owned by separate entrepreneurs, working with four or five machines each out of a total of ten or twelve machines owned by either one of them or by someone who was himself not involved in production\(^\text{33}\). When a large full tanning unit does jobwork for others or lends out its machinery to others to undertake jobwork, it does so because it has idle capacity and does not have enough orders to utilise its entire capacity. On the other hand, exclusive jobwork units, whether physically separate or using common workplaces depend on jobwork for their very existence. In both the Calcutta and Madras clusters, I found a proliferation of exclusive jobwork units engaged in different single/multiple tanning and finishing operations\(^\text{34}\). This study has not analysed the phenomenon of larger independent units themselves doing jobwork for others or letting out their machines for jobwork by tenant tanners when demand is slack, though this is an aspect that is important when one considers the issue of how the clusters or the sector as a whole adjusts to sudden changes in demand, particularly from the international market. This is easily explained and thus not analysed separately. What is analysed at length is the exclusive jobwork tannery, which actually takes the brunt of fluctuations in demand.

Of the 8 exclusive job work tanneries covered, 4 were in Madras and 4 in Calcutta. Of these, two in Madras and four in Calcutta are independent enterprises that also are physically separate. The remaining two are housed under the same roof but are using the same machines owned by an entrepreneur who formerly was involved in tanning

\(^{32}\) This section analyses this category because it constitutes the category of pure jobworking units.

\(^{33}\) In this case, the enterprises were all distinct from each other with specific names in spite of not having their own distinct workplace. Of course, their names were not registered with any authority, but their identities were distinguishable in terms of orders being placed with separate enterprises by name.

\(^{34}\) An All-India survey of tanneries conducted by the Central Leather Research Institute, Madras in 1989 found that out of 436 SSI tanneries surveyed 21% undertook job-work exclusively and another 26% job work facilities in addition to their own production, or did job-work themselves provided in addition to own production (CLRI, 1987).
snakeskins but went out of business once regulations prohibiting it came into force. All the job-work tanneries that were visited are proprietary concerns that are owned by single proprietors. In terms of habitat, they may be said to be like workshops.

Table 7.5: Ownership pattern in the tannery segment

<table>
<thead>
<tr>
<th>Type of unit</th>
<th>Number of Units Covered</th>
<th>Type of Ownership</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Proprietorship</td>
</tr>
<tr>
<td>Traditional Tannery</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Jobwork Tannery</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Small Independent Tannery</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Medium-Large Tannery cum Product-</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>making unit</td>
<td></td>
<td>8</td>
</tr>
</tbody>
</table>

Source: Fieldwork information.

Coming to the small scale independent tanneries, of the seven enterprises studied (four in Calcutta and three in Madras), two are proprietorship concerns and five are partnership concerns. Four of them came into existence after 1980, whereas three were established in the mid-1970s. The tanneries in Calcutta are not registered as small scale units whereas the Madras ones are registered as small scale units and availing of facilities. However, in both places, it is not clear whether clear records of actual capacities and when they were installed exist anywhere or not. This category of units have been set up on a factory basis by independent entrepreneurs who are technocrats and/or those who are historically involved in the sector. The units consist of proper buildings with clear division into different departments for marketing and different segments of production. These small scale independent enterprises are therefore typical factory-type enterprises.

A typical medium-to-large-scale tannery or tannery-cum-product making unit is housed in a large factory consisting of several buildings in a prominent area in the
cluster. These enterprises are also clearly divided into different departments in charge of production, marketing, etc and these are typically housed in different buildings.

Four such enterprises were visited in Madras and three in Calcutta, and the owners of four units with production facilities in other parts of Tamil Nadu were interviewed. Of the four units visited, the one in Madras is exclusively a tannery doing only the part of the production process from wet blue tanning to finishing, and this unit is neither backwardly nor forwardly integrated. The ones in Calcutta have integrated forward and established product making units mostly producing small leather goods and garments. The Calcutta units also undertake tanning from the raw to the finishing stage. Of these, all four were private limited companies.

As far as the ones that are in other clusters in Tamil Nadu whose owners were interviewed in their Madras offices are concerned, they are all private limited companies. This is a phenomenon that I observed as being typical, that when the size of the firm is small, partnership is the ownership form that tends to dominate, whereas as the firm tends to grow larger, they become private limited companies. Hardly any of the medium or large scale companies, many of who are major export earners in the tanning as well as the product making segment, have gone public, however, and this is an aspect that will be taken up for its reasons and implications. Table 7.5 summarises the ownership structure of the units that were covered in the different segments.

Thus, small scale tanneries as well as the medium and large scale firms may clearly be said to belong the factory type in terms of habitat, i.e., both consist of regular buildings that are clearly divided into different departments and having separate areas delineated for different operations. In terms of official enumeration too they come under enterprises governed by the factory act and hence formal sector enterprises.

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35 One of the major companies in the industry that has gone public (Mirza Tanners) belongs to the Kanpur cluster and is an exception. When I interviewed one of the Managing Directors of the company at an International Shoe Fair in New Delhi in 1999, it was found that the company had done extremely well over the years, even after it registered itself on the stock market. The people interviewed from other companies who are placed at a similar level as far as scale, exports and performance is concerned, however, were extremely sceptical about going public and argued that that would surely bring about the downfall of their companies essentially by diluting family control in this traditional industry.
whereas the first two are clearly in the informal sector. However, as will be seen below, there are links between the different kinds of units in the tannery segment and the trajectory of development in the clusters has been influenced by the nature of these linkages.

7.6.1.3 Social background of entrepreneurs and workers.

The main issue that I attempted to investigate in examining social background was that of how much social relations have 'straitjacketed' the industry. This, as mentioned earlier, is with reference to the "institutional straitjacket" that Banerjee and Nihila (1999) refer to. While an answer to this question will be provided only in the next chapter, here an attempt has been made to judge the degree of 'social embeddedness'.

The traditional tanneries are owned mostly by Punjabis belonging to the Scheduled Castes, who moved to Calcutta around the 1920s or so to start the tanneries but still maintain strong links with their families in Punjab. In fact, some of them belong to agricultural families with some land and visit Punjab regularly to supervise agricultural operations. As Chapter 4 mentioned, these people, who are traditionally leather workers as well as weavers, call themselves Adh Dharinis and are followers of the fourth Sikh Guru Ravidas. They share a common caste identity with their workers in terms of both groups belonging to the Scheduled Castes. This has played a major role in fostering a certain degree of owner-worker co-operation that has influenced the nature of trade union activity in this segment. This contrasts with owner-worker relations in the other tannery segments in Calcutta which are more openly antagonistic. This is an aspect that is extremely crucial with respect to the link between clustering and social relations and will be covered later.

These entrepreneurs, though belonging to the Scheduled Castes, were traditionally involved in trade in leather and other commodities, unlike many other groups of people traditionally belonging to the category of leather workers, and could mobilise resources from within their communities that enabled them to become entrepreneurs.

36 The details of this are presented in the sub-section on labour markets and labour processes.
37 Briefly, the issue is: do social relations generate trust or mistrust in the industry and what kinds of social relations are important for the generation of trust?
All the job-work units that were visited are, as mentioned earlier, owned by single proprietors. Two of them are leather technologists, and all of them are new entrants in the industry, although three of them in Madras and two in Calcutta are Muslim. This is a phenomenon typically associated with job-work. Large numbers of technologists are produced each year by the colleges of leather technology all over the country. These graduates very often go into actual production themselves on a limited scale through job working and a large number of such units owned by leather technologists have come up over the last decade or so. A large number of these technologists also work as tenant tanners, without their own workplaces and working on orders from specific product making units.

Of the seven small scale independent tannery units, three were owned by Chinese tanners who established their businesses at various points in the early 1970s. One was owned by a Muslim technocrat with no family interests in the business, one by a Muslim entrepreneur whose family had been involved in leather trade on a minor scale, and the fourth by a Hindu technocrat. The Calcutta units are hide-based tanneries whereas the ones in Madras are skin-based. In the medium and large scale segment, the units are mostly owned by Muslim entrepreneurs in Tamil Nadu, by Chinese and Muslim entrepreneurs in Calcutta and the family involvement of both these communities in raw hide and skin trading or in shoe/product making has been a major factor contributing to their success.

Among the medium and large tannery-cum-product-making units, of the seven owners of units visited, four were Muslims from families with interests in the leather business for a long time and no formal degree in Leather Technology, two were leather technologists with no family background in the business and one was neither. Of the four units whose owners were interviewed whose production facilities are in other clusters in Tamil Nadu, three had a history of involvement in the leather business and one was a leather technologist with no family links.

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38 One of them took over a small vegetable tannery from his father whereas the other two inherited chrome tanning units. It must be remembered that Calcutta adopted chrome tanning earlier than Madras and the Chinese were one of the first people to set up chrome tanning facilities.
As far as workers are concerned, caste and region are major determinants of entry into the labour market in Calcutta. The workers in the traditional tannery segment come entirely from the informal market, from among the Chamars from Bihar and they are separate from those in the non-traditional segment in the sense that there is no mobility between the segments. While the workforce in the entire tannery segment and to some extent the product making segment comes mostly from among Bihari chamars, those from specific districts work in specific segments. For example, tannery workers come mainly from Vaishali, Samastipur, Chapra and Gaya whereas leather garment and footwear workers come from Gaya, Bhojpur and Begusarai.

In Madras too, many tannery workers belong to the Scheduled castes, but the entry barrier is not as binding as in Calcutta. These Scheduled Caste workers come from agricultural families who moved into other occupations as well. There are also large numbers of Muslim workers, particularly in tanneries owned by Muslim entrepreneurs. Traditional leather working communities such as the Chakkiliyans and the Paraiyans are mostly engaged in the 'dirty' operations in tanning. An interesting aspect of the importance of ethnic identity for the composition of the labour force lies in the fact that from the early seventies onwards, with the introduction of finishing capacity as part of the Seetharamaiah Committee's recommendations, there was a substitution of traditional workers by Muslim workers in a large number of traditional tanneries in Tamil Nadu, including Madras, which is why when fieldwork for this study was done, large numbers from both communities were found. This was based on the perception by a large number of Muslim entrepreneurs that traditional workers were unfit for the transition to higher-technology processes such as finishing and would also be unwilling to make the transition.

Similarly, in Calcutta, tanneries have employed a small pool of Nepali workers who work only for a small number of years and then go back to their country. These workers are paid higher salaries than the majority consisting of the Bihari chamar workers and this, according to the entrepreneurs, is because they do not have any permanent interest in the industry and do not join trade unions.

39 Nihila (1999) found that in skin tanning units in Tamil Nadu, chakkiliyan women were engaged in the initial process of opening the raw curried skin and of sorting and trimming them.
40 P.Usha's study (Usha (1984) found this to have taken place extensively in the tanneries in the various clusters that she studied in Tamil Nadu.
It may be seen from the above that community appears as an important aspect of ownership as well as employment in the tanning segment as a whole. The Directory of Tanneries published by the CLRI lists more than 200 tanneries in Calcutta as being owned by Chinese entrepreneurs and about 30 by Muslim entrepreneurs out of a total of 365 tanneries as an illustration. Similarly, more than half of 82 tanneries in Ambur and almost 100 out of 137 tanneries in Vaniyambadi in Tamil Nadu are owned by Muslims. As far as specific segments are concerned, it is more true of ownership in the traditional tanneries and the older chrome tanneries (both small scale ones as well as medium and large scale) and less in the jobworking segment. In the interviews, it appeared that community linkages are very helpful for entrepreneurs to get a head start in the tannery segment. This is because access to raw material, credit and capital, as well as the ability to sort raw material are factors that crucially affect production in tanning with each of these made easier through community linkages. For example, being a Muslim tanner in Madras or in Calcutta provides access to all the above, essentially due to the historical involvement of the community in raw material trade. The Chinese, though not involved in raw material trade, have the advantage of having done business for a century or so and having skills that are handed down, though access to capital is less than that of the Muslim tanners. The standard link between clustering and social relations appear to have played a role in the two clusters.

However, it cannot be argued that community has functioned as an entry barrier to entrepreneurship in the leather industry since it was also observed that large numbers of non-traditional entrepreneurs had also set up and operated successful units. It is here that the link between clustering and industrial atmosphere become visible in the leather industry. Many of the jobwork tannery-owners as well as those of larger units stated that being part of the cluster enabled them to take advantage if the 'information that floats around in the clusters' as well as gain access to the common pool of labour and services available in the clusters. It must also be noted that one of the reasons why community has not really functioned as an entry barrier in tanning is because of

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42 While this would be true of any industry, it is particularly true of tanning because of the aversion to 'working with flesh' by the largest segment of the population and the ability to judge raw material, trade in it as well as the willingness to finance such trade and production resting only with specific communities, or to those specially trained for it.
the availability of large numbers of leather technologists who pass out of the various colleges of leather technology regularly.

It is clear, therefore, that while social relations have been crucial in determining the ownership patterns in the tanning segment, clustering has also enabled the development of entrepreneurship where it might not have been forthcoming in an isolated manner.

It has been seen how social embeddedness plays a role through caste and community identities in the labour force too. In Calcutta, it is through the entry barrier created and nurtured by the workers themselves and used by the entrepreneurs\(^43\), whereas in Madras it is through a segmentation of operation by community which has however become flexible.

It will be argued subsequently that caste and community have helped legitimise the flexible production structure that is based on the informalisation of the labour process in the industry and that this is linked to the nature of dependence on the international market. Before that, the following sub-section takes up the nature of the production process in tanning.

7.6.1.4 The Production process, Technology and Linkages in the Tanning Segment.

The questions that one seeks answers to in this sub-section are: What is the relationship between the 'stage' firms (represented by the jobwork units) and the independent units of different sizes? Have production processes in the tanning segment evolved so as to generate more specialised or vertically integrated firms? What is the nature of technology upgradation in the different kinds of firms?

In the traditional tanneries on an average, each unit employs 10-12 workers. The main raw material that is processed consists of low grade, salted hide purchased from the local raw hide market or split hides obtained from the adjoining chrome tanning areas. Split hide consists of that part of the hide of a cow or buffalo that is towards the inside of the animal's body (or the flesh side as it is usually referred to) that is "split" from

\(^{43}\) This will be seen in the sub-section on the labour process.
the outer side and is both cheap as well as suitable for making heavy, rough leather. This raw material, which is not used in chrome tanning, is purchased by the owners of the units themselves from the local market, or from the owners of chrome tanneries in the adjoining Tangra, for whom this is a waste material. The very existence of the units for a large number of years ensures the ready availability of raw material cheaply.

Tanning operations in the traditional tanneries are all manual and extremely tedious. Most of the operations are done in the pits and very little is done in drums or by machines. Both bag tanning and pit tanning are done in these tanneries. The production process\(^{44}\) includes the first stage of liming and deliming (the former involving the soaking of the raw hide in a mixture of lime and soda to remove hair, and the latter referring to leaving the limed hide in cold water to remove traces of lime), the second stage of tanning (soaking hides in pits containing bark solutions, or stitching the hides into bags and filling them with bark solutions), and the third stage of finishing (adding of oil, jaggery and sugar solutions to soften the tanned hide in drums, sun drying and buffing to flatten and smoothen tanned hides). Each hide weighs 10-12 kilos and the process of transferring them from one pit to another is laborious. Apart from one or two large drums, there are no machines used in most of the units, with the exception of a buffing machine to flatten the tanned hides that is available with a few units and is rented out to the other units. Thus the degree of capital intensity in these traditional tanneries is low and investment in fixed capital, commensurately, would be extremely low\(^{45}\).

\(^{44}\) Only the production process is described here. The specific operations within each process is taken up in the sub-section on labour process.

\(^{45}\) It was not possible to get any information, even in the form of rough estimates, on the levels of investment from the enterprises. From the nature of the production process, I have assumed that fixed investment would be relatively low, and that the main cost of production would consist of wage costs and raw material costs.
Table 7.6: Average capacity in the tannery segment

<table>
<thead>
<tr>
<th>Type of Unit</th>
<th>Average Capacity per Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional Tannery</td>
<td>0.1 to 0.2 million square feet</td>
</tr>
<tr>
<td>Jobwork Tannery</td>
<td>0.1 million square feet</td>
</tr>
<tr>
<td>Small Scale Independent Tannery</td>
<td>0.3 to 0.4 million square feet</td>
</tr>
<tr>
<td>Medium-Large Tannery cum Product-making unit</td>
<td>2 million square feet and above</td>
</tr>
</tbody>
</table>

Source: Interview with office bearer of Council for Leather Exports.

As far as access to the credit market is concerned, the traditional units in Calcutta have no access to bank finance. As mentioned earlier, these entrepreneurs, though belonging to the Scheduled Castes, were traditionally involved in trade in leather and other commodities, unlike many other groups of people traditionally belonging to the category of leather workers, and could mobilise resources from within their communities that enabled them to become entrepreneurs. There is hardly any additional investment and working capital is mobilised from internal resources.

Raw materials are purchased from warehouses in the city, very often on credit from raw material traders who would be repaid after production and sales took place, or acquired from chrome tanning units in the nearby areas\(^{46}\). The relationships with input suppliers is fairly stable, essentially because it has been built up over time, and also because the raw material consists of material that would otherwise have been wasted in many cases and is available in scales much larger than the production in this segment.

In spite of no actual figures being available, I worked out rough estimates for the cost of production in the traditional tanneries and also estimates of turnover and profits, which are presented in Table 7.7. It may be seen that even these highly primitive tanneries earn substantial profits every month, making the operations highly lucrative.

\(^{46}\) As mentioned earlier, one of the kinds of raw material used is 'splits' that are discarded by chrome tanneries and these are therefore acquired from the neighbouring chrome tanning areas.
Table 7.7: Cost structure in a typical traditional tannery in 1998.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Total</th>
<th>Heavy hides</th>
<th>Light hides</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production (no. of tanned hides per month)</td>
<td>1500</td>
<td>1000</td>
<td>500</td>
</tr>
<tr>
<td>Sales Turnover (Rs)</td>
<td>1140000</td>
<td>840000 (@840 per hide)</td>
<td>300000 (@600 per hide)</td>
</tr>
<tr>
<td>Costs (Rs) of which</td>
<td>900000-1000000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raw hides</td>
<td>720000-850000</td>
<td>600000-700000</td>
<td>120000-150000</td>
</tr>
<tr>
<td>Other inputs (lime, Tannins, etc)</td>
<td>35000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labour</td>
<td>25000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profits (per month) (Rs)</td>
<td>1140000-214000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Fieldwork interviews.

In chrome tanning units, including the jobwork tanneries, operations are much more dependent on machines than in traditional tanneries, though a large number of operations are still done by hand. The process of tanning consists of the following operations as mentioned earlier: first, processes to convert raw hides into semi-finished form either by vegetable or chrome tanning and second, processes to convert semi-finished leather into finished leather. Some pre-tanning operations, such as soaking, liming, defleshing and deliming are similar in the traditional and the chrome tanneries and can be done both manually as well as by using machines, but the rest are done by workers working with machines. For example, in the beamhouse (pre-tanning stage), operations such as cleaning the lime pit (cleaning of sludge, and pickling of flesh and waste using lime solutions), cleaning the beamhouse, carrying the pelt from one place to another, are purely manual whereas dehairing, fleshing and liming can be done with machines as well. In Madras, very few tanneries do any of the wet operations (from the raw hide stage to the wet blue stage) as they are not permitted to do so, but some jobwork tanneries that I visited were engaged in wet operations to produce wet blue leather clandestinely. Here, all pre-tanning operations were being done by hand and were similar to the traditional tanneries of Calcutta. In the tanning

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47 Once the hide/skin has been dehaired and fleshed, it is referred to as pelt.
and finishing stages too, some operations can be done only by hand, such as hooking and unhooking skins for drying, drying and dyeing, and sorting and packing.

The other job work tanneries typically do 3-4 of the various processes. These units therefore have two or three machines and/or 3-4 drums. Among the 8 units covered, four undertake tanning operations (2-3 stages in the production of semi-finished leather) and 8 undertake finishing (2-3 operations between the wet blue and crust stages). Of these, two units in Madras and two in Calcutta undertake pre-tanning operations as well as tanning upto the semi-finished stage and here, all pre-tanning operations are done by hand using traditional workers. The other tanneries are finishing tanneries, where mostly machines are employed. What needs to be noted is that both in Calcutta and in Madras, jobwork tanneries are engaged in manual operations or work with machines depending on the part-process that is being engaged in and except for the fact wet operations are banned in Madras, there are units undertaking various parts of the production process in both clusters, thus using different combinations of manual and mechanical operations.

Raw material in the kind of units being analysed are, obviously, provided by the unit for which jobwork is being done and in all the cases, these units have fairly long term relationships with five or six larger units when demand is buoyant. When demand is slack the units function at less than capacity. The orders are generally fragmented and variable and in both places, they sell to domestic producers as well as to exporters. All the units reported that they planned to expand their businesses and turn into independent producers and exporters if possible. All of them also added machines over a period of time, beginning with sometimes only one machine, and gradually doing more processes. However, it was generally seen that wherever possible, operations that could be done manually were not mechanised in the jobwork tanneries.

Backward and forward linkages for these firms are with the same firms, i.e., the ones that subcontract work out to them. They are thus completely dependent subcontractors who depend for their market and their raw material on the larger units who subcontract work out to them. Thus vertical relationships are crucial in these units.

48 This is important because a fundamental aspect that is pointed out about Madras is that inherently, more enterprises tended to be mechanized and hence modern.
because of the nature of their production. Horizontal links between similarly placed units in this segment are also common, with firms getting work done from other units for operations that they cannot do when orders come. For example, a unit that specialises in certain finishing operations (toggling and buffing) stated that it sometimes got orders to do the subsequent finishing operations (such as spraying and glazing). Since it did not have machinery to do these operations, it depended on two different jobworkers for getting this job done by paying a rent. However, as demand is fragmented, there interactions are few and far between, but exist none the same. It also shows how uncoordinated the system of farming out work to jobworkers is in both clusters.

In both Calcutta and Madras, the machines in the jobwork units are purchased locally, from manufacturers who have set up sale outlets in the clusters. The rate of technological upgradation, in terms of acquiring better machinery to do the same work, is extremely low in these units, but over a period of time, the number of operations being done has slowly expanded in all the units covered, thus necessitating the purchase of new machinery for the additional operations being done. It is common, therefore, to see a combination of very old machines for a particular set of operations that have been done for many years, along with new machines for operations that the unit has newly entered into. In this scenario, it was very difficult to arrive at any estimates of capacities or of capacity utilisation in the jobwork tanneries. This also points to an important element of technology acquisition through machinery, that of a serious imbalance in the same unit between machines purchased at different times which in turn affects production runs significantly. An important element in technology upgradation in tanning involves correcting this imbalance and this is an aspect that will be covered later.

Coming to linkages, clearly, all the jobwork units have to maintain very strong linkages with units that supply them with work in order to ensure a steady supply of work. Typically, each jobwork tannery gets orders from three or four larger units with the rate of orders going up when business is in an upswing. In this case, the units are very often not able to deliver their products on time, but have to take all the orders in

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49 This has been identified by the CLRI as one of the major technological problems affecting the tanning segment. (CLRI 1987, 1997)
order to maintain the stability of the long term relationship. In this situation, they resort to using machinery in other similarly placed units which are idle. With a downswing, the larger units themselves very often do jobwork for even larger units and the ones under consideration suffer. In addition, the jobwork units do not really benefit when favourable prices obtain because these are not passed on to them by the larger units, but get squeezed when downswings occur, both in terms of getting fewer orders as well as in terms of getting lower prices. These units, therefore, are the most vulnerable among the many types of units that obtain in the sector.

The following example demonstrates this: finished leather prices vary between Rs.25-85 or so per square foot, depending on quality, with average quality fetching Rs.40 or so per square foot. Jobwork rates work out to Rs. 6-8 per square foot, of course varying with the degree of finishing or the number of operation undertaken, and this is unchanged even when average final prices go up to Rs.55 or so. In 1998, when unfavourable conditions in the international market caused prices to be slashed by 25-30%, jobwork rates were cut more than proportionately. **Jobworking, therefore, has emerged as an institutional feature of production in the sector and can be said to have become so prevalent due to clustering.**

Coming to credit availability, the Madras jobwork units are mostly financed by nationalised banks under various schemes for the small scale sector, whereas the Calcutta units are mostly financed from internal funds, borrowing from family and friends and from the informal credit market. This aspect is a very distinct difference between Madras and Calcutta, as will be seen again in this chapter, and will be analysed separately subsequently.

The next chapter provides an analytical perspective of the role played by jobworking firms in the tanning and product making segment in the clusters as well as in the industry as a whole.

In the small scale independent tanneries, production takes place in factories in both the clusters and a large number of operations are mechanised. In Calcutta, the units undertake the whole process from the raw to the finishing stage, whereas in Madras, the production process begins only at the wet blue or E.I. stage and ends with finished
leather. This is because, as mentioned earlier, the Chromepet-Pallavaram tanners are not permitted to undertake the highly polluting stages of tanning up to the wet blue or E.I. stage (or the wet processes as they are referred to).

All the small scale independent tanneries in both the clusters began production with only a few facilities, but gradually built up forward facilities to go in for the next process to reach current levels of production. *This is an interesting aspect from the clustering point of view, where even small scale units do not really specialise except at the beginning, but actually undertake full production by forward integration.* A question that logically follows is: why does such integration take place and in such a structure, why do specialised jobwork tanneries also exist? At this point, no answers will be attempted, because an overall picture is necessary for a consistent answer.

Investment in these units is quite high, to the tune of Rs.0.5 crores on the average, with a fair degree of mechanisation. A typical tannery contains 20-25 different machines for measuring, cutting, splitting, shaving, etc and several drums where many of the tanning, drying and colouring operations are done. Some of the machines in these units are bought from domestic manufacturers with outlets in the clusters and a few are imported and are of much higher capacity than the average production in these units. Most of the machines, however, are produced domestically and are purchased very often from within the clusters themselves.

In the Madras units, most of the investment was made using bank finance, whereas the dependence on bank finance by tannery units in Calcutta is negligible. Here, investment is financed through credit from informal/personal sources and from retained profits. In addition to funds for investment, bank finance is taken in both clusters substantially for working capital requirements.

It was found that the degree of machine maintenance in these units is better than in the jobwork tanneries, with machines being replaced when they got old as well as being repaired and maintained on a regular basis. Servicing and repairing services in both the clusters were being done by specialised units, with standard prices being charged. However, there was hardly any switching to newer kinds of machines involving higher productivity for the same operations, which means hardly any upgradation of
facilities was taking place, whereas new machines had been added for newer processes being done in-house as the enterprise grew. As in the jobwork tanneries, the small scale tanneries also were found not to have acquired machinery in an orderly manner, with machines in different sections being of different outputs and capacities, resulting in stocks accumulating in certain sections of production and leading to bottlenecks.

Raw material is procured either directly from raw hide and skin markets (in Calcutta, where the main raw material is raw hides and skins) or from other clusters (in Madras where semi-finished leather is procured mostly from Dindigul or Trichy, which specialise in the wet processes). These tanneries do not influence raw material prices, which are given to them by the kind and size of buyers from the same sources (in the case of semi-finished leather being the raw material), or by the nature of transactions in raw hide markets (where tanning begins from the raw hide stage). To elaborate, the small scale tanneries in Madras source the wet blue leather or E.I. leather that they use from Dindigul, which has hundreds of small tanneries undertaking tanning from the raw to the wet blue or E.I. stage. These tanneries, in turn, sell to other large tanneries in Dindigul itself or in Ambur, Vaniyambadi, etc. mostly on a jobwork basis. The rates that get fixed as a result of these transactions are the ones that get fixed between the Madras and Dindigul tanneries. In Calcutta, where the raw material is raw hides and skins, prices are given in raw hide markets as far as the small scale tanneries are concerned. With raw hides and skins or semi-finished leather constituting 60 to 70% of input costs, it may be said that these tanneries have very little control over input prices. However, although the control over raw material prices is little, the small scale tanneries have stable, fairly longstanding relationships with raw material suppliers. Chemicals are purchased mostly locally from old suppliers, with price negotiations being done at firm level, indicating a certain flexibility on the part of the supplier depending on volumes of an individual firm’s demand, longevity of contract, etc. Most of the chemical suppliers are small scale firms themselves who market their output to individual firms and not in general open markets.

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50 This is a problem that gets aggravated when demand becomes more exacting in terms of quality as well as in terms of delivery schedules, because firms then do not have the capacity to ensure uniform quality or deliveries on time.

51 During one of the interviews, a conversation between a chemical supplier and a Chinese tanner gave a clue to the nature of negotiations. The former, who was not one of the latter’s regular suppliers, had
Coming now to forward linkages, small scale independent tanning units in Calcutta sell essentially to exporters or fabricators of leather products, who in turn supply the domestic and/or the export market, whereas those in Madras export finished leather directly. The specific units that were studied in Calcutta sell their output within Calcutta itself and in Agra (to both exporters as well as domestic producers), but I was told that exporters from Madras often place orders from such units in Calcutta. In both the places, the units that were studied had set up product-making and exporting divisions utilising finished leather produced by themselves. Each tannery in Calcutta as well as in Madras has six or seven dedicated buyers of their output (domestic buyers in the former case and foreign buyers in the latter case) with these relationships getting sustained for five or six years at a stretch, and two or three new contacts being established every year.

Prices of finished leather in the domestic market are set more or less competitively due to the large number of producers and to this extent, both sellers and buyers do not have any effective control over them. However, due to the nature of the product, i.e., leather, where it is possible to cheat on actual quality by using inferior materials without being able to make this out from its appearance, a reduction in price paid by the buyer after negotiation is often met by the delivery of lower quality leather by the seller, finished in a way that the defect/lower quality cannot be detected immediately. A buyer, therefore, cannot be sure about the absolute quality of the leather purchased until it is delivered. Thus, the need for stability in transactions and the maintenance of acceptable quality leads to a certain degree of stability in output prices unless a major disturbance occurs in the final product market, particularly the international one. On the average, the price of finished leather in the domestic market is between Rs. 60/- and Rs. 80/- per square foot for average quality that is used for standard products that are sold at lower ends in the international market.

introduced a new product that he claimed would impart a shine to black finished leather. The tanner was apprehensive about the product and was keen to use it and was interested in the product, he said, only if it gave a sheen as well as smell to the leather that would make it look and smell “like Italian leather”. The tanner, it was clear, preferred to use chemicals used by his regular suppliers and was willing to go in for new products only if it would be guaranteed that his product could be marketed as a more differentiated product, and not merely if it improved the appearance of his product marginally. This conversation revealed how difficult it is in the case of these small scale units that have relationships with each other, to break long term relationships, except in the case where a major breach of trust arose.
For the Madras tanneries that sell finished leather in the international market, prices are anyway given and any disturbance in the international market is immediately felt by them, necessitating a flexible production structure and a reliance on jobwork. Their buyers are agents of product making units in Italy and the USA who purchase leather for the manufacture of cheaper end products in their respective countries. The relationships with the foreign agents are volatile and based entirely on prices being given to them, with every fluctuation resulting in margins being squeezed further. However, there is a certain premium on maintenance of quality, as a result of which most of these tanneries have gone in for new machinery when it has been necessary. These machines, however go without being fully utilised most of the time, necessitating the undertaking of jobwork by the tannery. They also keep the option of getting jobwork done from jobwork tanneries for the export of specific kinds of leather when the demand arises.

One aspect that all entrepreneurs stressed in the interviews was that profit margins were being consistently squeezed due to the combination of rising raw material prices and more or less stable output prices, leading firms to undercut each other to get a greater share of the output market, or to cut labour costs by keeping wages very low or resorting to casualisation of the workforce. Thus, as far as horizontal linkages are concerned, i.e., relationships between firms of similar size and producing similar products, I found that it is intense competition that characterises the relationship between similar enterprises as far as production and marketing is concerned, and not really co-operation or joint action to deal with market agents. It was reported that hardly any information regarding prospective new markets, available machinery and technology, or orders received is ever shared between enterprises, even among enterprises owned by people from the same community or even related to each other. In fact, two of the enterprises reported that on the contrary, a great deal of resources and energy are devoted to gathering secret information on orders received, designs developed by and links established by other similar firms. The reason for this is that most tanneries in the small scale sector are vertically integrated, doing all permissible parts of the production process, and are not dependent on each other in a production sense. The areas where co-operation obtained significantly was with regard to how enterprises dealt with labour, where employers' associations play a major role, as
well as in joint action for larger policy issues. For example, in recent years, tanners in Madras have got together and established a Combined Effluent Treatment Plant (CETP) to deal with the pollution due to generation of large volumes of effluents during tanning. In Calcutta, Chinese tanners have got together and initiated legal proceedings against the move by the state government to relocate tanneries from the areas described earlier to a Leather Complex on the outskirts of the city. In fact, when field work for this study began, a prominent Chinese tanner stated that the Chinese Tanners' Association did not play any role in the economic life of the cluster, but by late 2000 when some last interviews were done, the association had been activated and had initiated legal action against the government. These conclusions contrast with some of the standard ones that the literature on clustering have arrived at, where cooperative competition has been observed in terms of horizontal linkages between firms as well.

The next chapter brings out the role of the small scale independent firms in the leather clusters in India. For now, it may be mentioned that these come closest to the typical small scale firms seen in European industrial districts.

Coming finally to the production process in the medium and large scale units, it is typically what is considered the modern process in tanning, and the units are highly mechanised, very often automated with the use of CNC machines becoming important over time. All operations from the drum stage right up to the finishing stage are done by specialised machines and operated by skilled labour which is fairly specialised by operations. These units use a fair number of imported machines, but very often second hand and imported from Italy. Imported machines, it was reported, are useful only if specialised effects are necessary such as a particular kind of grain in the leather and if demand for that kind of leather was forthcoming in sufficiently large quantities. Otherwise, even these large units did not find it economical to buy imported machinery, even second hand. (It was also reported that a second hand Italian machine for any of the finishing operations cost almost double of what it cost to buy an Indian machine for the same operation, albeit for a product of lesser quality.) Investment in fixed capital is of the order of Rs. 10-15 crores and the companies have
annual turnovers of Rs. 20-50 crores. Installed capacities for tanning are more than 2 million sq.ft per month. Table 7.9 shows the cost structure of a typical large scale unit. It may be seen that raw material costs cover almost 90% of costs incurred and labour costs constitute only less than 3% of cost even in these organised sector units. This is the same as the expenditure on labour in the backward traditional tanneries.

Coming to the growth profiles of these units, one in Calcutta began as a small jobworking tannery that grew with bank finance to its present size, a major part of its growth owing to finished leather exports to the erstwhile Soviet Union between 1986 and 1990. Subsequently, the unit has moved to exporting leather goods to the US and European markets. This unit, in spite of being a jobwork unit in the beginning (for about twelve years before it entered the Soviet market) had a captive source of raw hides due to the proprietor's family being involved in raw hide and skin trading since the beginning of the century and therefore had no problem in expanding scales or diversifying into leather product. Appendix 7.6 provides the detailed growth profile of this unit. Two other units began as small scale tanneries and have grown using bank finance primarily to finance purchase of machinery. None of the units reported a lack of access to formal sector credit in both clusters. A large number of medium and large scale units avail of formal sector credit, particularly in Madras, for tannery as well as product making operations. Large Chinese tanneries or tannery-cum-product-making units in Calcutta, however, avail of formal sector credit only for product making and finance tanning out of own/informal sources. This will be taken up later when the issue of credit is taken up for the sector as a whole.

These were the companies that were covered for this study. The other Tamil Nadu clusters have companies whose sales turnovers are of the order of Rs.120 crores or so.

In these four years, its profits went up, according to its Managing Director, from a mere Rs. 80000 to about a crore.
Table 7.8: Cost structure of a typical large scale tannery-cum-product making unit

<table>
<thead>
<tr>
<th>Parameter (Rs. cr)</th>
<th>1993-94</th>
<th>1994-95</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>6.46</td>
<td>10.75</td>
</tr>
<tr>
<td>Other Income</td>
<td>-</td>
<td>3.31</td>
</tr>
<tr>
<td><strong>Total Income</strong></td>
<td>6.46</td>
<td>11.08</td>
</tr>
<tr>
<td><em>less: cost of sales of which</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raw materials consumed</td>
<td>5.00</td>
<td>9.39</td>
</tr>
<tr>
<td>Salary, wages and welfare expenses</td>
<td>.012</td>
<td>.23</td>
</tr>
<tr>
<td>Power and fuel</td>
<td>.013</td>
<td>.23</td>
</tr>
<tr>
<td>Other expenses</td>
<td>.55</td>
<td>.80</td>
</tr>
<tr>
<td><strong>Total cost of sales</strong></td>
<td>5.82</td>
<td>10.65</td>
</tr>
<tr>
<td>Profit before interest</td>
<td>.64</td>
<td>.43</td>
</tr>
<tr>
<td>Interest</td>
<td>.55</td>
<td>.30</td>
</tr>
<tr>
<td>Profit before tax</td>
<td>.09</td>
<td>.14</td>
</tr>
<tr>
<td>Tax provision</td>
<td></td>
<td>.05</td>
</tr>
<tr>
<td>Profit after tax</td>
<td>.09</td>
<td>.09</td>
</tr>
<tr>
<td>PBIT as a % of sales</td>
<td>9.9</td>
<td>3.91</td>
</tr>
<tr>
<td>Raw material as % of sales</td>
<td>77.39</td>
<td>84.67</td>
</tr>
</tbody>
</table>

Source: Administrative Staff College Of India (1996).

These units do all their tanning operations in-house in their present state, having grown from the small scale independent tannery level, at which stage all of them gave work out to jobworkers as well as did jobwork themselves. At the current level of operations, the tannery part in these units is relatively independent of other enterprises in the tannery segment and hardly any kinds of vertical linkages with outside firms obtain, though vertical interfirm linkages have been crucial to their earlier growth. In the units that have integrated forward to establish product making units, work is given out to fabricators for the relatively less skilled processes in the making of products such as handbags, wallets or leather garments, primarily to avoid supervision problems as well as to permit more flexibility to variable demand. It became clear to

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54 The balance sheets of some of the large units in both the tannery and product making segments were available from a report prepared by a consultancy firm, from where the table has been prepared as representing a typical case.
me from this that while in tanning and in footwear making it is still possible to centralize operations and function independently for producers such as the ones being considered who supply fairly large quantities of output, in product making, the degree of fragmentation in demand as well as the kind of demand that requires products to be made as cheap as possible makes a flexible production structure with strong vertical inter firm relations inevitable.

These units procure raw material through their buying depots and also have influence over raw material trading channels. All the units reported that they get relatively stable supplies of raw material from the market when they need to buy from the market, due to links with a group of stable suppliers. Orders for raw materials are placed in bulk because they also receive large finished leather orders from their buyers. Unlike the smaller units, these units do not buy raw material on credit because they are in a position to advance credit for raw material purchases. All the units covered also import semi-finished leather and add value to them for use in their own product making units, or import finished leather for their product making units. The finished leather that they themselves make is either exported directly or sold to exporters.

As far as forward linkages are concerned, the six units covered demonstrated three different kinds of linkages. The exclusive tannery in Madras is a captive supplier of finished leather to an American exporter of leather products that sources its finished leather from various parts of the world. It is therefore like a jobwork tannery that produces specific kinds of finished leather for an international leather product maker who gets the advantage of low labour costs and lax labour laws. The difference between a typical jobwork tannery and this one is that the latter is an independently set up and managed unit and the parent unit or the buyer does not advance any materials for the latter's production. While this unit is an independent entity, it is in reality a subcontractor to a large international firm with such similar subcontracting arrangements in several countries. This is a typical case that is quite common in this sector.
The second case is that of two units in Calcutta who both export leather products to
the US and Europe to the tune of Rs. 10-12 crores and also supply most of their wet
blue leather output (to the tune of Rs. 10-12 crores) to large product making units in
Madras. These units also get about 35% or so of tanning upto the wet blue stage
jobworked. This is presumably to be able to cushion against the adverse impact of
fluctuations in demand from their domestic buyers. They have very stable and long
standing relationships with their domestic buyers, with output prices generally
reflecting competitive conditions, as in the case of similarly sized small scale
tanneries and product making units. This is a typical case where inter-cluster
relationships have become important over time in providing markets for finished
leather or semi-finished leather. One of the units also supplies relatively low quality
finished leather to local producers of leather products.

The third case consists of units in Madras and the ones from the other clusters in
Tamil Nadu, which exclusively export finished leather as well as products, i.e., they
do not sell at all in the domestic market. Finished leather is exported to a large
number of countries and fetches a big chunk of profits in these units. The units have
practically no control over prices of finished leather which are determined by the
international market and merely communicated to them through the agents whom they
sell to.

Within the leather products exported\textsuperscript{55}, the units covered in this section supply both
the 'rock-bottom' end of the international market (especially for products such as
wallets and belts) and the lower to medium range segment in leather goods and
garments. The cheap range products are sold through agents to supermarkets that sell
these items (typically wallets) free with purchases of other leather products such as
leather garments and handbags. The lower to medium range are sold to 12-15
different suppliers who are either shop owners or agents of branded companies. One
of the units interviewed had set up a collaboration with an American shoemaking
company and was selling in its brandname.

\textsuperscript{55} More details on leather product exports will be provided in the next major section on the leather
product-making segment.
In short, all the units have very stable relationships with their buyers with, however, very little control over prices of final products, and no brand names in the international market. These aspects, like many others presented above, are common between Madras and Calcutta.

Coming to horizontal linkages, there are no production linkages between different enterprises in the medium to large segment, but there is intense collaboration with each other for favourable policies towards the sector. These units operating as a group have also got the advantage of intense interaction with the CLRI for technical expertise and have also been involved in joint decision making efforts with government ministries, export promotion councils. The founders and/or managing directors of many of these companies have also been part of Government committees that have been appointed to study specific problems of the leather industry. These companies have also been at the forefront in organising and participating international fairs, committees to review functioning of the industry, as well as the setting up of Combined Effluent Treatment Plants in response to anti-pollution norms being laid down in Madras. While there is no collaboration between firms for production, it can be seen that joint action has been seen in many aspects to do with the future of the industry as a whole. What this has meant is that at the level of the industry, it is the views, problems and priorities of this segment of large and relatively modern firms that has got articulated in recommendations of planning documents and committee reports that have been used as the basis for policymaking as a sector. It must be remembered that these firms have derived vast advantages out of clustering, but have sometimes become independent of the cluster and constitute the extremely successful firms in the industry. They are also the ones that exercise a great deal of control over raw material supplies and in this way on the sector as a whole. The main arguments for dereservation, large-scale liberalisation of imports of finished leather and machinery, as well as that for small-scale firms to work essentially as subcontractors have been articulated by this group of firms.

To briefly sum up the salient points that emerge from this sub-section, it has been seen that the traditional tanneries of Calcutta use primitive production processes, have very low investment and have stable relationships with both input suppliers as well as buyers. Production is financed from internal resources as they have no access to bank
finance. In spite of very minimal linkages with the rest of the cluster, production is highly lucrative and stable.

Jobwork tanneries typically work with some machines and use a production process that is a combination of manual and mechanical processes, with technological upgradation taking place in a limited sense, essentially to add new machinery when a new process is undertaken. Investment is higher than in the traditional tanneries and is financed by banks in Madras, but not in Calcutta. They have dependent and vulnerable relations with firms that contract work out to them. Jobworking has emerged as an institutional feature of production in the sector and is seen to have increased in importance along with the changing emphasis in export policy.

In small-scale independent factories, production takes place in factories, is significantly mechanised and they have seen substantial growth and vertical integration in both clusters. Investment is quite high and credit, as in the case of jobwork tanneries, is financed out of internal resources in Calcutta and bank finance in Madras. Technology upgradation has been piecemeal and unbalanced and has been seen essentially in the acquisition of machinery. Forward and backward linkages with similarly placed firms are highly competitive, and characterised by uncertainty with larger firms. Horizontal linkages between themselves are limited mostly to negotiating jointly with labour and in a limited sense to lobbying against unfavourable policies.

The medium-and-large tannery-cum-product-making firms are highly mechanised, even automated in many cases and are operated by skilled labour. Investments are large and are mostly financed by banks, although the extent is limited in Calcutta compared to Madras. They have stable relationships with input suppliers, with captive sources of input supply very often. They also have stable relationships with a smaller number of buyers, although their relationships are also determined most often by terms set by buyers. Most of these firms' markets are in the lower end of international markets, although some of them have managed to tap the medium segment in some products. Growth profiles of most of these firms in both clusters show that they came up from small scales, sometimes from the jobworking firm level and reflect the logical outcome of the pattern of growth inherent in the structure of the sector.
It can be seen that a highly flexible production structure has come into existence consisting of several layers of enterprises with strong linkages between them in both the clusters. At the same time, it can also be seen that the overall tendency is towards vertical integration within enterprises and not towards the stage firms characteristic of industrial districts, although the stage firms do exist. This highly flexible production structure is sustained by particular kinds of flexibility in labour markets and labour processes, which will be elaborated in the following sub-section.

7.6.1.5 Labour market, working conditions, division of labour and wages in the tannery segment.

This sub-section looks at the various aspects of the organisation of the labour process in the tannery segment with the objective of answering the following questions: are labour markets characterised by the same kind of flexibility that characterises the system of production? How is the labour process organised in the cluster? These questions are answered by focusing on different aspects. First, the structure of the labour market, the nature of recruitment and employment in different unit types.

There are some aspects of the structure of the labour market among leather workers, especially tannery workers that are common across all the different kinds of enterprises in Calcutta. Some of this has already been presented in the sub-section on social background and is being reiterated here. To begin with, caste and region are major determinants of entry into the labour market in Calcutta. The workers in the traditional tannery segment come entirely from the informal market, from among the Chamars from Bihar and they are separate from those in the non-traditional segment in the sense that there is no mobility between the segments. This represents an important aspect of labour market segmentation in Calcutta. In Tamil Nadu, as mentioned earlier, in the seventies, there was a substitution of traditional workers by Muslim workers for machine operations in the early seventies and thus, a large number of tannery workers in Madras are Muslim, apart from the traditional Scheduled Caste workers. The major aspect of labour market segmentation in Tamil

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56 It may be recalled that while the workforce in the entire tannery segment and to some extent the product making segment comes mostly from among Bihari chamars, those from specific districts work in specific segments.
Nadu is that along gender lines, with significant numbers of women being employed in tanneries in the North Arcot clusters. Also, in Chromepet-Pallavaram where factories were visited for this study, women are employed in factories where finishing jobs are done and not in the earlier stages. This is because women are usually employed for many of the degrading and arduous operation in the wet stages of the pre-tanning and tanning process, which are banned in the Madras area. Table 7.9 provides information on the numbers employed and the kinds of employment in the different kinds of tanneries as seen from the fieldwork.

Table 7.9: Average employment in the tannery segment

<table>
<thead>
<tr>
<th>Type of Unit</th>
<th>Regular Employment</th>
<th>Casual Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Madras</td>
<td>Calcutta</td>
</tr>
<tr>
<td>Traditional Tannery</td>
<td>Not applicable</td>
<td>8-10</td>
</tr>
<tr>
<td>Jobwork Tannery</td>
<td>5-6</td>
<td>10-15</td>
</tr>
<tr>
<td>Small Scale Independent Tannery</td>
<td>100</td>
<td>30-75</td>
</tr>
<tr>
<td>Medium and Large Scale Tannery</td>
<td>&gt;150</td>
<td>75-200</td>
</tr>
</tbody>
</table>

Source: Fieldwork information.

Employment in Calcutta tanneries is entirely through informal networks and a study (Ghosh 1989) found that 47% of employment is through relatives, 18% through caste networks and 5% through regional networks. Employment is thus entirely based first on caste and within this on the basis of region and workers are recruited on the basis of their relatives having worked in the same units. This aspect of labour market segmentation is very entrenched in the tannery areas, both in the chrome tanning segment as well as the traditional tanning segment.57

Traditional tanneries in Calcutta and jobwork units in both clusters recruit people entirely from the informal market. The jobwork units reported a peak employment of

57 There is also another set of enterprises doing traditional tanning in the Calcutta cluster, and this consists of tiny units owned by another group of Chamars from Bihar. These, however, are like village tanneries, with the work being done mostly by the proprietors themselves, employing two or three workers and using rough tanned leather from the heads of cattle. This study has not gone into the operations of this segment because the linkages with the rest of the industry are negligible.
about 30 people when a large number of orders were forthcoming to a reasonable extent, although average employment is in the range of ten or twelve workers. In both Madras and Calcutta, it was found that information regarding orders that any firm receives spreads through the area in a very short while and there are large number seeking work in these units and in the job-work units that supply to them. In Calcutta, employment takes place through the mediation of a representative of the community who is very often a trade union activist too. In Madras too, the recruitment process is mediated through a contractor who earns a fee who is again usually a person with social links with the workers.

The small scale independent units in Calcutta employ 30-75 workers on a regular basis, whereas in Madras, average employment in these small scale tanneries is about 100. The number of workers employed in medium and large scale tannery units can vary from a low of 75 or so to a high of 500 or so, depending on how capital intensive they are and whether they also produce leather products.

Recruitment procedures that are followed in both the above are similar to those in the traditional and jobwork tanneries, with both regular as well as casual/temporary workers being recruited through labour contractors. In Calcutta, the workforce in these units, as in other tanneries, consists overwhelmingly of Bihari chamar workers and a small proportion of Nepali workers. For example, I found that about 15% of workers in a Calcutta tannery (small independent and the medium and large segment) were Nepali.

The second aspect of looking at labour markets and labour processes consists of looking at the nature of work, skills and remuneration in the different types of units. The total workforce in tanneries can be divided into the following categories: non-workers (which includes managerial and administrative staff, and technical personnel including leather technologists), skilled workers (consisting of machine operators and other skilled workers) and unskilled workers. Given this categorisation across the entire tannery segment, each enterprise type and its employment profile can be looked at.

Table 7.10 shows the proportion of employees of different categories in tanneries.
Table 7.10: Employment in tanneries by category

<table>
<thead>
<tr>
<th>Type of Tannery</th>
<th>Category of Employment</th>
<th>Numbers employed (%)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Calculate</td>
<td>Madras</td>
<td></td>
</tr>
<tr>
<td>Jobwork Tannery</td>
<td>Non-workers</td>
<td>5-10</td>
<td>5-10</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Skilled Workers</td>
<td>40</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Unskilled Workers</td>
<td>50</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>Small scale independent tannery</td>
<td>Non-workers</td>
<td>15</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Skilled Workers</td>
<td>60</td>
<td>43</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Unskilled Workers</td>
<td>25</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>Medium and large scale tannery</td>
<td>Non-workers</td>
<td>25</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Skilled Workers</td>
<td>40</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Unskilled Workers</td>
<td>35</td>
<td>35</td>
<td></td>
</tr>
</tbody>
</table>

Source: Fieldwork information.

It is clear that the proportion of non-workers is higher the larger the size of the enterprise. It can also be seen that there is not much difference between Calcutta and Madras as far as the employment pattern in different kinds of tanneries is concerned.

The nature of work in the traditional tanneries is entirely informal and there is hardly any skill upgradation that takes place. Each traditional unit employs 10-12 workers in the various pre-tanning and tanning operations. There is hardly any division of labour between them, with each when having to do all the filthy, tedious jobs involved in the operations. Apart from these there are two categories of workers, those who operate the buffing (flattening) machine mentioned above and those who carry the raw, split & tanned hides between units for machine operations or to, and from trucks, i.e., the headload workers. Officially, there is no distinction made between the skills of these different workers, except that the pre-tanning and tanning operations are done by workers on monthly salaries whereas the other operations are done by piece-rated workers.

In jobwork tanneries, division of labour is more well defined, with distinction being made between workers operating different machines and various other skilled, semi-skilled and unskilled workers. Those who operate machines and drums are considered skilled workers, whereas those working with small handtools such as knives for...
dehairing and fleshing are considered semi-skilled. All other categories of workers are unskilled workers. It is clear that work in chrome tanneries using machines involves higher levels of skills and a greater division of labour than in traditional tanneries. However, remuneration, tenure and availability of work in traditional as well as jobwork tanneries are determined typically as in the informal sector. There are no official labour records, but it is clear that there are no permanent workers in terms of benefits being available to them.

An interesting distinction was discovered between so called "permanent" workers and "casual" workers in both the traditional as well as the jobwork tanneries. Those who have worked for a period of 10-15 years or so in a unit consider themselves "permanent" to the extent that they are not laid off even if there is a fall in demand. The employers also consider them permanent in the same way although it is difficult to say whether clear records exist recording them as permanent workers. The "casual" tanning workers who are also paid monthly salaries similar to the "permanent" workers run the risk of being laid off and the piece rated workers are like daily wage earners with no security whatsoever.

On an average, the minimum salary which is paid to a new entrant involved in tanning operations in a traditional unit is about Rs. 1200/- for an 8 hour working day, with overtime rates being piece-rates. There is hardly any difference between “Casual” and “Permanent” workers in this regard. A worker who had been working in a unit for 20 years or so reported that he earned about Rs. 2000/- including over-time rates, which means that hardly any rise in wages can be said to take place over time. Piece rates are Rs. 0.70 per hide carried or Rs. 0.60 per machine operation for head load workers and machine operators respectively and they reported that in peak season (lasting for 2 to 3 months in a year), they earned about Rs. 1500 per month but on the average, monthly earnings worked out to Rs. 800 or so.

However, average remuneration levels are roughly the same, or only marginally higher in jobwork tanneries. A skilled worker therefore earns between Rs.1200-1500 per month, with those operating machines earning piece-rates. These tanneries are part of a production chain that very often links them to the quality conscious international market, but there is hardly any avenue for skill upgradation or quality
consciousness at the shop floor level because of the informal nature of recruitment, uncertainty of employment and the associated wage levels. The modes of remuneration and nature of work are the same for jobwork tanneries in Madras as well.

In small scale independent tanneries in Calcutta, machine operators are hired mostly on piece rates, whereas workers for the pre-tanning operations are employed on fixed monthly salaries averaging Rs. 1200 per month. Among the workers, the Nepali workers are paid higher salaries than their Bihari counterparts, averaging Rs. 2500-3000 per month, but none of the workers are provided any statutory benefits as per the Factories Act, such as Provident Fund, E.S.I., medical benefits, etc. The segmentation in the labour market with a certain set of workers being paid higher wages is based on assurances by the latter of not engaging in trade unionism or any form of worker organisation. In addition to the regular salaried and piece rated workers, there is a large body of casual labourers who are hired through contractors, paid piece rates for specific machine operations and whose employment is strictly determined by demand conditions. According to an interviewee from a trade union, 65% of the workforce in Calcutta is casually employed\(^5\) . No official records of employment and wages are maintained. Thus, in Calcutta, employment in the small scale independent tanneries is to a large extent from the informal market. It may be recalled from Chapter 5 that employment in the organised sector (from ASI data) actually showed a decline in Calcutta at the same time as the number of units expanded. This clearly alludes to the fact that a large proportion of the employment in the formal enterprises in Calcutta tanneries is casual and unreported.

In Madras, by contrast, reported employment in the small scale tanneries is higher than in Calcutta because most of the workforce is employed on a permanent basis with monthly salaries averaging Rs. 1200 per month. Statutory benefits such as P.F. and ESI are provided and firms maintain clear records. However, it was seen that there is a fair degree of casual employment too, particularly of women workers, in specific tanning operations, loading and unloading operations etc. This is a practice that is more common in the places where full tanning is done from the raw stage, i.e.,

\(^5\) The interview was of the Secretary of the Tannery Mazdoor Union affiliated to the All India Trade Union Congress.
Dindigul, Trichy, etc. These workers are hired through contractors and mostly belong to the lower castes. This kind of informal sector employment is much less in Madras than in Calcutta, but is present and average wages even for the permanent workforce are the same as those generated by the informal labour market.

In the last category of tanneries, i.e., the medium and large ones, since most of the operations are mechanised, there is a great deal of specialisation among the workers with limited mobility across machine operations. The modes of remuneration vary between Madras and Calcutta, with monthly salaries prevailing in Madras and a combination of monthly salaries and piece-rates in Calcutta. The labour market situation for these units is more or less the same as for the other kinds of units in both the clusters. For women tanning workers in Madras, where they are employed, they earn between Rs. 600 and Rs. 800 per month.

However, some aspects were noted to be distinctive in this segment and are noteworthy. In one case in Calcutta, there was an interesting phenomenon, where job workers worked under the same roof as the main factory workers and were being supervised by fabricators who were ostensibly independent and not employees of the larger firm. It seemed therefore, that production taking place in the large factory consisted of that done by workers employed by the factory directly, as well as that by small groups of workers working independently and doing job work for the large unit. This arrangement was not actually a job-working or fabrication arrangement but was part of the larger firms production process. By claiming that the small groups of people were job workers, the firm was avoiding stating the actual employment in its factory. In reality, it seemed as if the so called supervisors were not independent fabricators, but were actually controlled by the larger unit. In the records of the larger firm, however, the workers doing the job work would not get recorded at all. This enables the larger firm to pay much lower wages to these workers as well. It appeared, as was revealed in subsequent discussions with other tannery owners from the area, that this is a standard practice in Calcutta. This points out to the fact that labour flexibility is considered to be of foremost importance in enterprises irrespective of size and various forms in which this flexibility is ensured are experimented with.
Another aspect that provoked interest is that in the midst of the homogeneous labour market and remuneration that seems to prevail across clusters, some units had worked out improved norms for labour welfare. In the Madras tannery that was producing finished leather exclusively for an American firm, the owner had worked out an incentive system for workers by which if a certain production target was exceeded every month (which, according to the trade union and the workers from the unit, was reasonable and was invariably crossed every month), a certain proportion of the proceeds from the sales of that excess would be distributed to the workers as additional wages. This enables the workers of this unit to earn about double of what had been officially contracted with them. The proprietor of this firm was also providing regular snacks, uniforms and similar benefits to the workers.

In another firm, which had established a tie-up with an American shoe manufacturers and was selling in the latter's brand name from the sixties onwards, the minimum wages paid were significantly higher, with the average being Rs. 3000 or so. This generated a fair degree of antagonism from other similarly placed units, which were sticking to the average wages prevalent across the industry all over the country. It appears, therefore, that some units have been trying to get past the criterion of keeping wage levels and hence labour costs as low as possible. Both these units, it appeared, were able to do so because of the stability in their market which was ensured by long-term tie-ups with some firm. Entrepreneurs of both enterprises stated that this stability also meant relatively fair transactions with their buyers and that it was perfectly viable for them to provide better labour standards. It also became clear that the fact of their providing superior conditions of remuneration generated antagonism in the clusters.

This tannery pays average salaries of Rs.3000 or so to workers which, as is obvious, is higher than the average paid in the industry.

In general, however, the medium and large scale tanneries also employ the same methods of recruitment and employment as is prevalent in other segments, with the degree of informalisation being very high. Appendix 7.7 gives a list of benefits available to Madras tannery workers, which contrasts it with the situation in Calcutta.

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39 This is a large tannery-cum-footwear producing unit which is one of the largest export earners in the footwear segment.
A third aspect of labour market structure and labour processes is to do with working conditions, unionisation and collective bargaining.

In traditional tanneries, working conditions are extremely hazardous and also degrading to a large extent. The pre-tanning operations that are done in pits involve the workers standing in waist-deep solutions to ensure adequate soaking of hides. There is a heavy stench that emanates from the pits due to the raw hides and the solutions used, as well as the fact that these pits have also accumulated material from as long as 40-50 years ago. Stitching, flattening and stretching operations are extremely tedious and involve hard physical labour, as does the transferring of heavy soaked hides from one pit to another, or the transporting of hides by the head load workers. The workers complained of skin infections, tuberculosis and other respiratory disorders and also accidents at the buffing machine for which there is no medical allowance or even leave.60

In the jobwork tanneries as well as smaller chrome tanneries, many of the pre-tanning operations are performed in hazardous conditions and it was essentially in the large tanneries that these conditions were found to be better. The leather industry was designated as a 'hazardous industry' under the Factories Act, 1950. Among the different operations, liming and tanning have been notified as dangerous operations in Tamil Nadu and as part of recommending safety rules in these operations, women were barred from such operations. Women workers were barred from working in traditional tanneries and in chrome tanning units and only permitted to work in finishing units. In addition, several studies (quoted in Nihila 1999) found that nearly 225 chemicals are used in the various processes from pre-tanning to finishing and prolonged contact with several of these caused a variety of infections and disorders.61

Nihila (1999) notes that the National Institute of Occupational Safety and Health, US

60 In a study of female workers in the tanning industry in the Dindigul leather cluster in Tamil Nadu, Nihila (1999) found that while working conditions in tanneries are generally hazardous, those faced by women workers are particularly degrading and hazardous. For example, women workers who are brought into the industry entirely by contractors, are not recognised as legal workers in any sense of the term and. They are made to do physically strenuous and debilitating work like cleaning lime pits, carrying heavy raw materials from one place to another, drying hides and skins in hot chambers where they have to walk over burning charcoal to hook and unhook skins, etc.

61 These are dermatitis, conjunctivitis, nervous disorders, chest pain, asthma, bronchitis, frequent fever, headache to name a few. Women, in addition have been found to suffer from menstrual disorders, premature deaths, stillbirths, prolapse of the uterus, etc.
(1976) found that the accident and illness rate is five times higher in tanneries than the average for all other industries. Also, it has been estimated that on an average each year, one in five tannery workers is a victim of work related injury.\textsuperscript{62}

Tanneries in Calcutta do not provide any benefits, including health, to workers. In the Madras tanneries ESI facilities are available to regular workers and it was found that one of the main activities of the trade union (whose role will be covered soon) in the Chromepet-Pallavaram cluster was to see to it that the workers got the benefits when accidents actually occurred.

Workers are permitted to go on leave for only ten days in a year in Calcutta, which is never followed by them resulting in a high rate of turnover. A major reason for the long vacations (1 month at the minimum) taken by the workers is that hardly any of their families live in Calcutta, but in Bihar. They themselves live in shacks close to the tanneries, paying rents of Rs.150-300 per month with each shack housing 8-10 workers. While the labour market is entirely informal and offers hardly any security, entry and exit is also tightly controlled by the workers themselves through the barrier of caste and region and this provides an implicit assurance that a job in some unit will be available when they come back from vacations, and the actual difference in salary between a casual and permanent job is hardly anything.

A major difference between tannery workers in Calcutta and Madras is in the degree of unionisation. In Calcutta, unlike in Madras, a large number of tannery workers in general, as well as in the traditional tannery segment are members of active trade unions which have had a fairly long history of existence in the sector and which continue to be fairly active. A large number of workers in the traditional units are members of the Tannery Mazdoor Union affiliated to the All India Trade Unions Congress, which has been functional since the 1960s. However, even these institutions of collective bargaining have been influenced greatly by caste in the kinds of issues they have taken up. So, while working conditions, wages, etc., are characterised by levels of primitive existence, trade unions have not managed to raise the consciousness levels of the workers beyond the exigencies of a relatively static,

\textsuperscript{62} Nihila (1999)
backward existence. On the part of the workers, the abysmal conditions are reinforced by caste where they have a very lowly image of themselves.

In Madras too, trade unions have existed in the leather industry but have over time become ineffective due to a variety of reasons. While employers are less apprehensive about Trade Unions in Madras, there were a large number of agreements that were drawn up between unions affiliated mostly to the AITUC and CITU and employers associations, mediated by the Labour Commissioner. These agreements were invariably drawn up after strikes were announced by the trade unions, indicating a certain degree of legitimacy among workers, as well as threat perceptions on the part of employers. The agreements had to do with increases in wages as well as allowances. Appendix 7.8 provides a list of agreements drawn up between managements and workers in Tamil Nadu which were made available by the CITU trade union in Chromepet during fieldwork, which gives an idea of what negotiations take place. Over a period of time, however, employers have succeeded in diluting the potential for collective bargaining through the replacement of trade unions in individual firms by plant level committees that are not linked to any external trade union. While this has reduced the effectiveness of industry level trade unions, workers in individual units still continue to keep contact with the trade unions.

However, over a period of time, with the nature of changes in the organisation of firms, the labour process, the feminisation of the workforce, etc, the possibilities for labour militancy have become limited in the sector as a whole and commensurately in the tannery segment specifically. This will be dealt with later, when employment in the product making segment is discussed.

What, then, can be said about the nature of the labour process in the tannery segment in the Madras and Calcutta clusters? It is clear that informalisation is a major feature of the labour market, irrespective of the nature of the enterprise. Informal methods of recruitment and remuneration are a guaranteed system of exerting control over the labour process and even in this segment where production conditions favour vertical integration, flexibility is attained through control over labour. The availability of cheap labour presents the possibility of adjusting instantly to changes in demand, whereas investment in more machinery, even if the costs can be recovered quickly,
prevents the possibility of such instantaneous adjustments. *The control over the labour process constitutes the most certain element in the production process for an entrepreneur.*

### 7.6.1.6 Continuity and Change in the Tanning Segment.

It has been seen from the above two sub-sections that the structure of production that has emerged in the tannery segment is a highly flexible one, both in terms of production organisation as well as labour process. While there are units of different sizes and degrees of vertical integration, it has been seen that small size dominates in terms of numbers and variety of forms. At the same time, it is not the stage firm that represents the industry, but the one moving towards or having achieved vertical integration, because even typical stage firms such as the jobwork tanneries have gone in for vertical integration whenever possible. Both small size as well as the phenomenon of vertical integration are linked up to the nature of the production process, where being small is viable due to the nature of demand and being vertically integrated proves cheaper. At the same time, the existence of different levels enables a cushioning against the adverse conditions in the international market. The highly flexible system of production organisation, in turn, has come into existence because of the nature of the labour process which takes advantage of caste and community factors to maintain a highly informalised labour force whose main characteristic is its low cost and its flexibility.

The obvious question that arises in this context is: What is the likelihood that these forms of organisation will continue to exist in their present forms, i.e., is there an element of dynamism about these organisational forms which will help them survive as they are doing now, or will it warrant major changes at the sectoral and enterprise level? Answers to this question are attempted later, but a few points need to be noted here. As far as the traditional tanning units are concerned, while work methods and working conditions are primitive and they produce for the cheapest end of the market, it is clear that unlike many other kinds of informal sector activities, continuing to exist in the current form is extremely lucrative for entrepreneurs, as Table 7.6 showed. There is no reason for the entrepreneurs to go in for more modern methods of
production in the absence of this being articulated effectively by the trade union. The external factor that will affect the prospects of this segment is the proposed clearing of the tannery area in Calcutta and its relocation to a leather complex on the outskirts of the city. Practically non-recognised by the prominent industry bodies and even the supreme court (in whose order to relocate tanneries there is no mention of these units), the clearing of the area will in practical terms involve the shutting down of all the traditional tanning units and unemployment of all the entire labour force with no alternative employment opportunities or compensation because of the informal nature of their employment. For entrepreneurs, the choice will be to wind up operations in the industry altogether or to go into chrome tanning and product making as part of the leather complex, involving substantial investments.

It is clear that the traditional segment, catering as it does to a highly localised market, does not link up in any significant way to the domestic market for leather and leather products, or to the international market. However, this segment is important from the point of view of its employing a large number of workers and, more importantly, in terms of the general conditions in the labour market in Calcutta's leather industry being determined here in some sense. It is the conditions of work, remuneration and employment that have existed here from much before the sector expanded in the way in which it has today that seems to have set the benchmark for the same in the rest of the sector in this cluster. Thus, though the backward and forward linkages are negligible and there is very little link with the rest of the sector, wage levels in this segment seem to set the floor level to the wages in the sector.

As far as the jobwork tanneries are concerned, they have come up in order to serve as feeder units, in a fairly long and wide subcontracting chain, to larger tanneries and finishing units. This system offers great advantages to the larger unit in terms of restricting the size of their workforce, reducing capital outlays and supervision costs.

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63 The trade union leaders told me that in their own assessment, their demands had always been related only to wage increases or to the improvement in the status of the workers. With regard to the necessity of improvement in labour standards being linked up to productivity and technology upgradation, trade unions were beginning to understand and articulate the link recently. Lately, according to him, workers have become conscious of the need for such upgradation in ensuring their and the enterprises' existence.

64 While this is difficult to prove, in the interviews a common view that came across from the entrepreneurs was that when workers can be paid a particular wage and a steady supply of workers can be ensured, there is no reason to pay anything higher.
and cushioning them against the adverse impact of fluctuation in demand. While there is a proliferation of job-working units in both Calcutta and Madras and most of them are extremely small, there has been a dynamic aspect to the phenomenon. Many of the factory-type tanning and exporting units that will be analysed later have grown from these small workshops doing exclusively job-work. This growth has come about most often by adding on processes and capacities without legal sanction and recruiting additional workforce without any legal standing. Thus there is a continuity in the production structure that is built upon informal methods and labour processes. Since these units could be indirectly producing for the export market, there is every likelihood that they will continue to exist and in fact swell in numbers as the international market becomes more competitive.

In the last category of units whose operation were analysed, it is clear that even in units that belong to the formal sector in legal terms or in terms of capital size, informal labour recruitment procedures, working conditions and types of remuneration are prevalent to a very large extent. These larger units have grown from much smaller ones and this growth has been to a large extent due to informal elements mentioned above. In other words, the informalisation of labour has played a major role in the growth of individual enterprises from small, unorganized units to larger, organised ones.

7.6.2 Economic Organisation in the Leather Product Making Segment.

7.6.2.1 Background.

This covers the three-digit categories 291, 292, 293 and 299 of the NIC and could be considered the value-added manufactures in the industry. Broadly, leather product making consists of footwear making and leather good making, and the latter consists of the production of items such as leather bags, wallets, gloves, credit card cases, diaries, belts, leather garments, saddlery and harness and sports goods. Within the industry, leather goods are classified into ladies’ handbags, solid leather goods (suitcases, briefcases, etc) and small leather goods (jewellery cases, cosmetics cases, 291 consists of footwear, 292 consists of leather garments, 293 consists of leather goods and 299 is a miscellaneous category. 248
wallets, etc.)\textsuperscript{66}. While these are the broad categories, in practice, more than a hundred different items are being produced in the leather goods category. They can also be classified as those made for direct consumption, those used as intermediate products (industrial gloves) and for sports uses (saddlery and harness, sports goods). While leather goods are produced for the domestic as well as the international market, leather garments are being produced almost entirely for the international market\textsuperscript{67}.

Leather goods and leather garments are being considered here together because the organisational forms that exist and the production processes adopted are similar for both categories. In addition, in both leather garment making and leather good making, the small scale sector is overwhelmingly predominant, as Table 7.11 shows. This study has covered all the categories of leather good manufacturers, i.e., manufacturers of bags, wallets, etc and manufacturers of leather garments because the clusters covered consisted mostly of these and not footwear makers in any significant sense\textsuperscript{68}, except those covered in the tannery segment under the medium-and-large tannery-cum-product-making units.

While most of the information provided here is from fieldwork done for this study, information has also been supplemented by results obtained from a CLRI survey of product making units conducted in 1997.\textsuperscript{69}

Depending on the kind of leather product being produced, there are specific features of the product being produced that imply certain obvious production organisational forms. Leather product making involves the following operations: cutting of finished leather, stitching, pasting of small parts and attaching of accessories such as small buckles, clamps, buttons, zips, fasteners, etc. The degree of division of labour, division of operations between different kinds of workers, the degree of skill involved

\textsuperscript{66} This was the classification provided by the manufacturers in the interviews when capacities for different categories was being discussed.

\textsuperscript{67} This is related to the fact that the demand for leather garments in wide variety (except jackets) is extremely limited due to climactic conditions in India.

\textsuperscript{68} Footwear making for export takes place in Tamil Nadu takes place in other clusters such as Ambur and Vaniyambadi.

\textsuperscript{69} The CLRI conducted a survey of leather product making units in 1997 that covered a large number of footwear, leather garment and leather good manufacturing enterprises in the factory and non-factory sector all over the country. About 2500 enterprises were covered, of which 1800 or so were footwear units, 310 were leather garment producing units and about 390 were leather good producing units.
and the degree of decentralisation of production depend on the kind of article being produced. For example, cutting leather for leather garments is considered a highly skilled job and is done by a master tailor, with all cutting being done by a single person and sometimes the stitching too. Cutting the leather for wallets or small handbags, however, is not considered that skilled a job and is most often done by junior workers who are paid piece rates for the number of pieces cut. In this case, cutting leather for the various parts of the bag, for the strap and the lining, pasting of various small parts, stitching the different pieces, and so on are operations that are split between eight or ten workers or even more. Within this, operations to produce handbags and travel goods are considered jobs that require a greater degree of supervision and skill than the production of wallets, and the more exacting the nature of demand, the more the degree to which operations are concentrated under one roof. Thus, while production of handbags, wallets and leather garments are given out to fabricators by producers, a greater degree of supervision is considered essential for the former, and where the nature of demand requires higher quality, the former operations, even when they are contracted out, are done under the same roof as the main production unit. The specificity of different kinds of units depend on whether they operate at small or larger scales, whether they are independent or not, whether they are exclusive exporters or not, and so on, as the analysis of particular kinds of units below will show.

Different clusters have tended to specialise in the production of different leather products and hence the labour process in different segments/clusters is different. For example, saddlery and harness is concentrated in Kanpur, an old centre for saddlery and harness production. Jalandhar and Meerut are prominent centres for sports goods production. Calcutta is the major centre for leather good production, particularly handbags and small leather goods, whereas Madras and Delhi produce leather garments. The other clusters in Tamil Nadu consist of the major producers of footwear, as does Agra. What may be said overall, however, is that in leather product making, the divisibility of the number of operations involved in all products makes clustering an ideal form of economic organisation.

Footwear is mostly produced in Ambur and Vaniyambadi in Tamil Nadu and Agra.
Most of the shoes that are exported are manufactured mostly by large units in Tamil Nadu and also other parts of the country. The Madras cluster contains a few medium sized shoe manufacturers, whereas Calcutta has mostly small scale shoemaking units catering to the domestic market. Some of the exporters of shoes fall under the large and medium tanning units covered earlier, and others fall into the category of exclusive shoemaking companies. This latter category does not exist in any significant numbers in Madras and Calcutta and therefore this study covered essentially leather good manufacture.

In the clusters, it was seen that leather good making units were of different types—small, independent units producing for the domestic as well as the international market, small units that were part of larger groups, but were exporting in their name, exclusively fabricating units that worked on orders from larger manufacturers, medium sized firms that were both independent as well as those owned by larger groups, and large firms that were either exclusive good manufacturers and had sometimes integrated backwards, or producing leather goods as forward integration by tanneries. A similar categorisation could be seen for leather garments as well. However, as mentioned above, and as seen in Table 7.11, both these segments consist overwhelmingly of small scale units.

This study covered the following types of enterprises: fabricators of leather products, who are similar to jobwork tanneries, small scale independent product-making units, small scale enterprises that are part of groups, and medium and large scale product making units.

It is very difficult to provide exact estimates of the numbers of fabricators in either of the clusters because they mostly would constitute informal sector enterprises which are not registered anywhere. It was seen in Chapter 5 how in the unregistered sector, there has been an increase in enterprises belonging to the NDME and DME categories. Fabricators could belong to either of these categories because they are distinguished in terms of numbers of employees and as the findings below show, employment varies in these units.
Table 7.11: Distribution of leather product units according to scale of operation

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Leather Garments</th>
<th>Leather Goods</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Small scale</td>
<td>Medium scale</td>
</tr>
<tr>
<td>Madras</td>
<td>145</td>
<td>3</td>
</tr>
<tr>
<td>Delhi</td>
<td>43</td>
<td>1</td>
</tr>
<tr>
<td>Bangalore</td>
<td>38</td>
<td>-</td>
</tr>
<tr>
<td>Calcutta</td>
<td>22</td>
<td>1</td>
</tr>
<tr>
<td>Kanpur</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


with an average of 5-10. I visited four fabricating units each in both Madras and Calcutta, of which two in Madras are garment fabricators and two leather good fabricators, whereas all the ones in Calcutta are leather good fabricators.

In the next category of product making units studied, i.e., small scale independent producers of leather goods, it was difficult to find exact estimates of the exact numbers of such units. In Calcutta, the opinion from various sources was that there are at least 100 bag, travel good and wallet manufacturing units that are independent. In Madras, similarly, there are a large number of small scale, independent leather garment exporting units. Six small scale independent enterprises were covered for this study, four in Madras and two in Calcutta.

The next category of units studied consisted of small scale exporters of leather garments and products which are part of groups, this being a growing segment. First, there is the kind of group which consists of two, three or a larger number of units owned jointly (mostly as private limited companies) but who exist as independent small sector enterprises essentially producing garments/products as the case may be. These units have typically come into existence as a result of growth and diversification from the kind of units analysed above, or even from the fabricator level and have to exist as separate units in order to avail of special facilities and reservation available to small scale units. These groups, while they remain in the small scale sector, are restricted to the product making segment alone and do not go in for backward integration. These are referred to as horizontal group enterprises here.
The second kind of group that exists in the product making segment is that which consists of two or more enterprises in product making which have integrated backwards to ensure a reliable supply of quality inputs (essentially leather) and some, if not all the units producing products continue to be in the small scale sector. These units are common in the small scale sector, but such groups can also be seen in the medium and large scale sector, with the latter’s incidence increasing over time.

A third type of group that exists consists of small scale product making units that have been set up as forward integration by small scale tanneries. If they were taken together as a group, they would fall outside the permissible limits of small scale production, but split up into tannery and product making units separately, they are small scale units. Five groups were covered for this study, two in Madras and three in Calcutta.

The fourth category of units covered were medium and large product making units. As in the tannery segment, the medium and large segment consists of units that belonged to the DGTD sector. Six such units were covered for this study, of which two in Madras specialise in leather garments, and a third produces garments as well as small leather goods. Of three units covered in Calcutta, two specialise in leather goods of all kinds and a third manufactures garments as well as leather goods. Eight medium and large enterprises were visited, four in Calcutta and four in Madras.

7.6.2.2 Habitat, legal status and ownership.

A typical fabricating unit consists of a workshop employing 5-10 workers and using two or three sewing machines, and sometimes some other machines as well. The ones that I visited were all of this type, but one could see many more much smaller units too in the clusters. These units have mostly been set up between 1985 and 1990 (five out of eight) and some after 1990 (the remaining three)71. It is obvious that the growth in this segment came in response to demand from the international market and policies that emphasised value addition to cater to that segment of the international market. Most of the units have not been formally registered with any authority (six out of eight). Two of the units (one leather good manufacturing unit each in Madras

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71 It must be noted that the growth of NDMEs and DMEs took place in this period, as Chapter 5 showed.
and Calcutta) are registered as exporters with the Council for Leather Exports and export small numbers of leather goods. However, they are primarily fabricators for larger units and have begun exports only in the two years prior to when fieldwork for this study was done. They are typically housed in small sheds with asbestos roofs.

All the units are single-proprietor owned and have been set up by people with not necessarily any prior involvement in the leather business and it cannot be said that any distinct ethnic identities obtained in this segment. Some of them started by procuring orders from larger units whose owners were known to them through kinship ties. Two of the units were set up by master tailors formerly employed in large exporting concerns who set up the fabricating unit as a 'satellite' unit dedicated to production for the larger concern. This is an aspect that will be taken up subsequently.

As far as the small scale independent enterprise segment is concerned, I found in the interviews that most of them like the fabricators, were set up after 1985, with the boom in exports, in both clusters. They are also all single proprietor owned or partnerships and almost all of them came from the fabricator level. Most of these units were housed in rented premises with sheds consisting of two or three rooms. In Calcutta, most of these independent small scale producers produce for the export market, but a few of them sell in the domestic market through small shops in the city. This, of course, was more true of leather good making rather than garment making. In Madras, production of all products is exclusively for export.

The group enterprises that were covered for this study acquired their present form (i.e. diversifying and splitting into two or three separate units) only in the last 8-9 years, i.e. from about 1992-93 or so. One of the enterprises had been exporting bags and wallets from 1983, and fabricating them for exporters from 1974 and the others have been set up as small scale exporters of leather goods in the latter half of the 1980s. All these group enterprises (which are horizontal group enterprises that we have mentioned above) are registered as small scale private limited enterprises and are also active with the CLE, both in Calcutta and Madras. Table 7.12 is similar to Table 7.4 in the tannery segment and shows the ownership pattern in the product making segment.
Table 7.12: Ownership pattern in leather product units

<table>
<thead>
<tr>
<th>Type of enterprise</th>
<th>Proprietorship</th>
<th>Partnership</th>
<th>Private Limited Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fabricators</td>
<td>8</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>SS independent units</td>
<td>-</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>SS group enterprises</td>
<td>-</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Medium and Large Units</td>
<td>-</td>
<td>-</td>
<td>6</td>
</tr>
</tbody>
</table>

Source: Fieldwork information

In the medium and large segment, the units covered are either partnership or private limited firms. Some of them are individual companies, whereas some are group companies, with different units in the group specialising in different products. They are housed in proper factories with a number of buildings, with separate departments for production, sample development, storage and packing, etc. One of the Madras units and one in Calcutta have integrated backwards to have captive tanning capacity, and also buy finished leather from tanners in both Calcutta and Tamil Nadu. One Calcutta unit, in fact, has set up a tannery in Tamil Nadu that exclusively supplies it leather. All the units, in addition to buying leather from other domestic producers or producing their own leather also import finished leather for their product making. It appears that both integrating backwards as well as buying finished leather from tanneries are equally prevalent. In cases where units buy finished leather, they have very stable relationships with relatively large tanneries in both clusters.

It may be recalled that type of habitat and kind of ownership are similar between similarly placed segments in the tannery and product making segments in both the clusters. Thus, at the jobwork tannery level or the product fabricator level, habitat tends to be of the shed or workshop type and ownership in the form of single proprietorship. As one moves to small scale independent enterprises, habitat consists of more permanent structures and partnership firms tend to dominate, whereas in the small scale group and medium and large scale segment, private limited companies
dominate. In the larger firms, the factory form of enterprise is clearly seen. The enterprises covered in this study did not have any public limited companies. The possible reasons why ownership patterns such as the ones seen exist are covered in the next chapter.

7.6.2.3 Social background of entrepreneurs and workers.
Numerically, fabrication is a segment where people from different ethnic backgrounds have set up businesses, with a large number of Bengalis, Marwaris, etc. setting up fabricating units in Calcutta, and Tamil entrepreneurs setting up units in Madras. All of them, however, stated that belonging to any of the prominent communities involved in the business or in any way connected with the major exporting firms in the sector certainly helped in obtaining orders in the early stages.

Entrepreneurship in the small scale independent enterprises is also mixed with respect to ethnic composition and the traditional community that is seen is that of the Muslims in both Calcutta and Madras. In Calcutta, the Chinese, who own shoemaking units that sell in the local market in the city, are not present in the manufacture of leather goods, except in cases where tanneries have integrated forward to manufacture them, whereas there are Muslim entrepreneurs in the segment being considered in both Calcutta and Madras. In many cases these entrepreneurs belong to one of the families in the tanning business where they have got help from the family in setting up the unit as well as in procuring raw material. Most entrepreneurs in this segment, however, had no family interests in the business and did not come from any particular ethnic group. In this segment, therefore, it appears that ethnic identity is not a major element determining ownership.

In the small scale group and medium and large scale segment, ownership is not necessarily community based, i.e. even though large numbers of producers are Muslims in Madras and Chinese or Muslims in Calcutta, there are very large numbers of units set up by people with no traditional links with the industry. None of the entrepreneurs had any formal training in leather work either.
7.6.2.4 The Production Process, Technology and Linkages in the Leather Product Making Segment.

The production process in the leather product segment consists of three main processes of cutting, stitching and finishing. While the production process is simple, it involves a great deal of skill, as specifications are precise and standardisation has to be combined with variety. A leather product manufacturing unit thus requires not only personnel involved in production operations but also designers and sample developers. Enterprises can be distinguished by the number of operations done within a single unit, whether the operations are mechanised, whether work is done on own account, and so on.

In the fabrication units, work is done on the basis of orders from larger units. Some fabricators obtain cut components of leather goods or garments from the larger units and assemble finished products, including the attachments of buckles and other accessories for them. In some cases, only some operations are performed in the fabricating units, which are then more like the jobwork tanneries described earlier. Some fabricating units do a combination of partial or full processes. The degree to which fabricators do a few operations or actually produce full items is determined by the degree of skill of the main entrepreneur or the master tailors employed in the units. In the cases where the entrepreneur is a tailor or skilled worker himself, they usually get orders for almost complete production of articles. The difference between these units and full-fledged units is that they produce in response to specific orders received by larger units which are subcontracted down to them. This is also true of units that hire master tailors who are capable of producing entire articles and of the required quality. Of the units studied, it was observed that the larger workshops obtained mainly export orders, whereas the smaller workshops got orders from domestic manufacturers and retailers as well as from exporters.

From the nature of the production activities carried out in these units, it is clear that the level of investment required to set up these units is very low, substantially less that that required to set up jobwork tanneries. Enquiries revealed that some of the units could be set up with an initial investment of Rs. 1 lakh or so. As mentioned above, there are relatively less entry barriers in terms of ethnic affinity in this segment.
Fabricators do not use much machinery and rely on manual operations for sticking and attaching accessories and sewing machines for stitching.

The small scale independent units produce typically two or three items if they are producing leather goods, or only leather garments. The average capacities in these units are 300000 wallets a year, or 50000-60000 handbags a year, and so on. Within these small units, there are two types: one type does a significant proportion of own production and gets certain kinds of production fabricated, and the second type, where the larger part of the production is fabricated. Both these types of firms would be registered as small scale firms, as I found they were, but organise production in very different ways. It was seen that the former kind was more common in Madras and the latter in Calcutta. 72

In the former, production takes place in a factory using a combination of salaries and piece-rated workers, and using machinery of various kinds, like different kinds of stitching machines, and various cutting, flattening and sticking machines. Fabricators are engaged for the production of specific goods, or in the case of garments, for specific operations.

In the second type of unit, there is no factory as such because most production is handed down to fabricators. The formal workplace of the unit consists of an office where cutting machines to cut the leather are kept and only tailors to cut the leather are employed directly. Fabricators are provided with the cut pieces of leather and the accessories by the unit and are paid standard jobwork rates.

Depending on the kind of unit, the initial investment needed to set up a unit varies, from Rs.20-25 lakhs in the first case and Rs. 5-8 lakhs in the second.

Table 7.13: Average investment in leather product making units.

<table>
<thead>
<tr>
<th>Type of Enterprise</th>
<th>Average investment (Rs. Cr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Fabricator</td>
<td>0.01</td>
</tr>
<tr>
<td>Small scale independent product making unit</td>
<td>0.2-0.25</td>
</tr>
<tr>
<td>Small scale group enterprise</td>
<td>0.8-0.9</td>
</tr>
<tr>
<td>Medium and large scale product making unit</td>
<td>&gt;3</td>
</tr>
</tbody>
</table>

Source: Fieldwork information.

72 This has also been seen in the CLRI's survey of product making units.

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Production in the third category, the horizontal group enterprises, takes place in separate factories for the separate units. These separate units are registered in different names, those of different members of the same family, usually husband and wife or other close relatives. These factories are all reasonably mechanised and the machinery consists of sewing machines, cutting machines, clicking machines, embossing machines, splitting machines, beading machines, etc. The factory is typically divided into several departments such as the cutting department, stitching department, packing department, sample development department and a showroom to receive foreign buyers and to display new products.

Average investment in these units, whether they produce garments or goods, is about Rs. 80-90 lakhs for the group as a whole and sales turnover is about 10-15 crores. Capacities are developed on the basis of average demand which is invariably met and any excess is met through fabrication. On an average these units depend to the extent of 30-35% of their production on fabricators. Of course, as mentioned earlier, the dependence on fabrication is greater the smaller the size of the article being produced.

Production is tailored almost entirely to suit the specifications provided by the buyers. The design of the product being demanded is sent by the buyer to the producer, cut out on paper, specifying the exact size, design, colour and type of leather to be used. In some cases, samples are made and sent from abroad. The samples based on the designs sent are made by the sampling departments of the units by the relatively more skilled tailors and other workers, and sent to the buyers for approval, or displayed to new buyers. Most of the samples developed are from the designs provided by the buyers, but sometimes the units imitate the designs available in foreign design and fashion magazines that have been developed by important companies with their own brand names in Europe.

Unlike in the medium and large tanneries, those in the product making segment have strong links with lower levels in the production structure. Production in these is organised like in the small scale group enterprises, except that operations are at much higher scales and production might be split up between different clusters. All the units covered get some of their production fabricated and three out of six themselves do
jobwork for other units when demand for their own products is slack. Their relationships with their subcontractors is hierarchical, with the burden of adjustment to fall in demand getting passed on to the latter. One of the units has set up 'satellite' units run by master tailors who are former employees of the unit and have been provided with help in the initial setting up of the satellite units. This gives the 'parent' unit assured supplies of fabricated products while not needing to install higher capacity. Even in cases where vertical integration has taken place, there is a reliance on fabricators. Thus vertical relationships are characterised by a combination of vertical integration as well the retention of flexibility in production through subcontracting.

As far as forward linkages are concerned, there were different types. Two of the companies export products to several countries in the US and Europe, and like the small scale producers, have a large number of buyers for their products. These contacts have been established through repeated trips abroad, participation in fairs, etc. One company has been set up as a 100% owned subsidiary of a US based multinational firm that sells leather products. This company thus exports in the name of the multinational company and is governed by the rules concerning FDI. A third company supplies leather garments exclusively to a multinational trading firm that gets supplies of leather products from different companies all over the world. This company, while being the sole supplier to this trading firm, however, exports in its own name and is legally an independent firm. Thus several different arrangements can be seen in the marketing of leather products from this segment.

Coming to the nature of linkages between fabricating units and those between them and other kinds of enterprises, what is common between all kinds of fabrication units is that they all get the main raw material supplied from the larger units that subcontract work out to them, whether it is finished uncut leather or cut pieces of leather or partially assembled leather articles. Most fabricators produce for four or five larger units with whom they have fairly dependent relationships. The larger enterprises, in turn, get fabrication done from several different fabricators at a time and thus there is intense competition between fabricators for obtaining orders from these enterprises. During periods when demand is slack, particularly from the export market, the larger enterprises themselves start fabrication for the large sector.
exporting enterprises and these fabricators are forced to stop production for prolonged periods of time. Intense competition between the fabricators is based on undercutting in terms of jobwork rates and these are usually passed on to labour immediately.

Most of these independent small scale units are not backwardly integrated and procure their inputs from suppliers all over the country, as well as from the respective cities. They have long standing relationships with 5-10 tanneries from where they procure different types of leather depending on the kind of product being produced and the price at which the finished leather is being supplied. There are no middlemen in this case because the relationships between the firms is fairly long term. In the interviews, I found that each leather good unit had a standing relationship of at least five to eight years with their main suppliers. Very often, the tanneries tailor made their production to produce the specific types of leather used by these units without, however, being jobwork units. Price negotiations do not reflect the exercise of power by either side, but seem to reflect the specific conditions under which production of the finished leather as well as the leather goods is taking place. For example, the relative slump in international markets from 1997 that forced leather good manufacturers to reduce output prices put pressure on their margins and made them try to re-negotiate finished leather prices with tannery owners. Tannery owners, however, stuck to their original prices and in this case, new contracts would be drawn up with different suppliers.

Coming now to the nature of forward linkages, most small scale leather good producing units export directly in their own names and some do indirect exports. On an average, each exporter exports to 5-6 countries and has a total of 12-15 buyers for his products. These, buyers are, in turn sub-agents of international retail stores or supermarkets and get their supplies from various such suppliers, probably from different countries. This gives them bargaining power over these small scale suppliers. As mentioned earlier, design and product specifications are all provided by the buyers and the basic criterion used is which producer can supply a given kind of product at the lowest price.

The small scale group enterprises sell their products in five or six different countries in Europe or the US and transact with 12-15 different buyers. The nature of the relationship with their buyers is hierarchical, though less so than that of the small
scale independent exporters, essentially because the former are larger and can devote more resources to marketing exercises such as making trips abroad or participating in fairs. Typically, these producers meet their buyers two or three times a year, either in India or abroad, where plans for production are made a year or so in advance. Defective consignments are returned ruthlessly to the producers and negotiations on prices to be paid for final orders are done before the order is placed. Orders are usually based on the basis of designs provided by the buyers, but also on the basis of designs developed by the sampling departments of the units. Very often, designers are hired for some of these meetings, and the cutting patterns are provided by them. Once an order has been placed and the selling price fixed, the producer has to in turn negotiate input prices with the input suppliers. Forward linkages therefore involve a fair amount of collaboration and trust, lending a certain degree of stability to relationships, but it is also true that the main decisions and parameters of the transactions are set by the buyer.

As far as backward linkages are concerned, enterprises operating as a group function as a group in negotiating input prices, especially leather. Their relationship with leather suppliers is more or less the same as that of small scale independent producers, except that those who supply them leather depend on a smaller number of buyers due to the former's size. These tanneries can make do with orders from a couple of these enterprises and do not need to approach a large number of product exporters. The product exporters, on the other hand, keep their options open as far as tanneries are concerned and try to bargain down prices with the threat of buying from other tanneries. It was found, however, that the nature of the exporter, input supplier relationship was also more or less stable in spite of the greater degree of power exercised by the buyer. This is possibly because of the possibility of opportunistic behaviour by the tanner through the supply of substandard material on the one hand and due to the fact that they both operate from the same cluster and have grown on the basis of mutual help. Collaboration and trust exist to a much larger extent and in a much less hierarchical manner than in the relationship between producers and buyers in the small scale independent enterprise context.
Unlike in the medium and large tanneries, those in the leather product making segment have strong links with lower levels in the production structure. All the units covered get some of their production fabricated and three out of six themselves do job work for other units when demand for their own products is slack. Their relationships with their subcontractors is hierarchical, with the burden of adjustment to fall in demand getting passed on to the latter. One of the units has set up 'satellite' units run by master tailors who are former employees of the unit and have been provided with help in the initial setting up of the satellite units. This gives the 'parent' unit assured supplies of fabricated products while not needing to install higher capacity. Even in cases where vertical integration has taken place, there is a reliance on fabricators. Thus vertical relationships are characterised by a combination of vertical integration as well the retention of flexibility in production through subcontracting.

As far as forward linkages are concerned, there were different types. Two of the companies export products to several countries in the US and Europe, and like the small scale producers, have a large number of buyers for their products. These contacts have been established through repeated trips abroad, participation in fairs, etc. One company has been set up as a 100% owned subsidiary of a US based multinational firm that sells leather products. This company thus exports in the name of the multinational company and is governed by the rules concerning FDI. A third company supplies leather garments exclusively to a multinational trading firm that gets supplies of leather products from different companies all over the world. This company, while being the sole supplier to this trading firm, however, exports in its own name and is legally an independent firm. Thus several different arrangements can be seen in the marketing of leather products from this segment.

It is clear that the organisation of firms in clusters has aided the development of complex relationships between enterprises. However, neither production nor marketing is done keeping in view the cluster as a whole. Operations are strictly individual firm based and the choice between whether to remain a strict stage firm or whether to vertically integrate is taken on the basis of how uncertain markets are. This will be elaborated further in Chapter 8.

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7.6.2.5 Labour market and Labour Processes.

In all the fabricating units in both the clusters, whether they produce footwear, garments or leather goods, employment is entirely informal, in the sense of the labour force being employed from the informal labour market. Workers employed are made available through contractors who belong to the local area. On the average hired workers earn between Rs. 800 and Rs. 1000 per month. This could be either in the form of monthly wages or piece-rates, with average earnings working out to be the same in both cases. Each unit employs 8-10 workers out of which 3-4 are considered ‘permanent’ in the sense that they are not laid off during the slack season. These in the leather garment making units are mostly master tailors who cut patterns and supervise stitching during the peak season, but do all jobs in slack season. These craftsmen can earn up to Rs. 5000 per month. In the case of women workers, average earning is about Rs. 600 per month. This is true in leather goods manufacturing units as well. The Madras units hire mostly women, whereas in Calcutta, women are hired only for packing. No benefits such as P.F. or E.S.I. coverage are available to any of the units in this category in either cluster.

For the independent small scale enterprises, the labour market and the structure of employment is different between enterprises located in Calcutta and those located in Madras. In Madras, the product making units employ a relatively permanent female workforce that is provided facilities such as P.F., E.S.I. etc. and relatively clean working conditions, but are on the average paid low salaries that do not follow minimum wage norms. In fact, in Madras, while the average wages of male workers was reported to be

<table>
<thead>
<tr>
<th>Type of unit</th>
<th>Total workers</th>
<th>Regular</th>
<th>Casual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fabricating unit</td>
<td>8-10 (C and M*)</td>
<td>3-4</td>
<td>5-6</td>
</tr>
<tr>
<td>SS independent unit</td>
<td>25-30(C)</td>
<td>10-15(C)</td>
<td>15-20(C)</td>
</tr>
<tr>
<td>SS group unit</td>
<td>70-80 (C)</td>
<td>70(C)</td>
<td>25 (C)</td>
</tr>
<tr>
<td></td>
<td>150-170(M)</td>
<td>125(M)</td>
<td>25-35(M)</td>
</tr>
<tr>
<td>Medium &amp; Large scale unit</td>
<td>400-500(C and M)</td>
<td>100(C)</td>
<td>300-400(C)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>350(M)</td>
<td>20(M)</td>
</tr>
</tbody>
</table>

* C and M refer to Calcutta and Madras respectively.
Source: Fieldwork information.
about Rs. 1500 or so, that for female workers employed in product-making units was reported to be about Rs. 800-1000. Apart from this permanent workforce, records for which are submitted to the office of the labour commissioner, these units employ casual workers, but these do not constitute more than 10-15% of the total workforce employed during peak season. Thus while various amenities are available, the entrepreneur/firm in the organised sector clearly cares only as much as the informal sector does for workers. In addition, firms are clearly benefiting due to the gender segregation in wages.

In Calcutta, the workforce is mostly male, employed mostly on piece-rates or also on wages through contractors from the informal market. Women are also employed, but mostly for packing operations. Average wages for the male workers are the same as for the industry as a whole, while being higher than those earned by female workers in Madras. No benefits are available to workers in Calcutta, and the degree of unionisation is low in both clusters in the product making segment. Working conditions for similarly sized firms are more or less the same in both the clusters.

The size of the workforce in the small scale group enterprises is relatively larger than in the small scale independent exporters of leather goods and garments considered earlier, with each of the group enterprises employing 70-80 regular employees in Calcutta and about 150-170 in Madras. This distinction exists, as mentioned earlier, because in Madras a smaller number of piece-rated workers are engaged and most of the workforce (which is predominantly female) is engaged on a regular basis with some statutory benefits. In the Calcutta units, piece rated workers engaged at various points of time number about 300 or so per unit.
Table 7.15: Pattern of employment in leather product making units (%)

<table>
<thead>
<tr>
<th>Segment</th>
<th>Managers</th>
<th>Supervisors</th>
<th>Cutters</th>
<th>Stitchers and other workers</th>
<th>Supporting staff and others</th>
<th>Administrative staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leather Goods</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Madras</td>
<td>2</td>
<td>5</td>
<td>8</td>
<td>30</td>
<td>50</td>
<td>5</td>
</tr>
<tr>
<td>Calcutta</td>
<td>10</td>
<td>15</td>
<td>10</td>
<td>25</td>
<td>35</td>
<td>5</td>
</tr>
<tr>
<td>Leather Garments</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Madras</td>
<td>12</td>
<td>16</td>
<td>7</td>
<td>50</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>Calcutta</td>
<td>13</td>
<td>15</td>
<td>5</td>
<td>40</td>
<td>28</td>
<td>5</td>
</tr>
</tbody>
</table>

Source: CLRI (1997)

The workforce employed in these units consists of a salaried segment and a piece-rated segment in Calcutta and only a salaried segment in Madras. Workers working with machines are specialised in doing those operations and earn mostly piece rates in Calcutta. There is very little horizontal or vertical mobility for workers in these units in both the clusters. In Calcutta, it was not clear whether clear records of actual employment exist or not, or even if they exist, whether they are made public to concerned authorities or not. The workers are mostly Bihari chammars, or Bengali Muslims, with a small sprinkling of Bengali Hindus with these being employed as supervisors, office staff, etc. The workers are engaged through contractors from the same communities. The workforce is not actively involved in trade unions and the incidence of labour unrest is low. This is probably because of the high incidence of piece-rated workers in Calcutta. On an average, the working day consists of 8 hours, but production can go into the early hours of the morning depending on demand. Overtime rates are paid, but no statutory benefits of any kind are provided.
Table 7.16: Average wages in leather product making units (Rs. per month)

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Managers</th>
<th>Supervisors</th>
<th>Cutters</th>
<th>Stitchers and other workers</th>
<th>Supporting staff and others</th>
<th>Administrative staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcutta</td>
<td>2000-6000</td>
<td>2000-4000</td>
<td>800-5000</td>
<td>1200-2000</td>
<td>300-1500</td>
<td>1000-1500</td>
</tr>
<tr>
<td>Madras</td>
<td>1500-15000</td>
<td>1000-4000</td>
<td>700-4500</td>
<td>700-2500</td>
<td>300-1800</td>
<td>500-2500</td>
</tr>
</tbody>
</table>

Source: Fieldwork information.

In the large scale segment, the same conditions apply as those in group enterprises, except that the workforce is larger. The relative differences between Calcutta and Madras, as well as the relative proportions between regular and casual employees are the same.

Coming finally to unionisation and collective bargaining, the trade unions in the leather product making segment in both Madras and Calcutta are much less significant than in the tanning segment. This is because of the more dispersed nature of product making, fragmentation between different sets of workers in Calcutta and the feminisation of the labour force in Madras.

7.6.2.6 Continuity and Change in the Leather Product Making Segment.

To sum up, a large proportion of leather product making in India consists of it taking place in small workshop type establishments that use traditional skills, or those that have come up in response to particular kinds of demand for the products. These units, existing at almost the bottom level of production in long chain consisting of intermediaries or larger units, have come up to a large extent in the last couple of decades and represent a significant aspect of the informalisation of production. Product fabricators form the last link in a complicated subcontracting chain that supplies to a highly volatile and segmented international as well as domestic market. With the nature of markets remaining the same, it is possible for these structures to continue to exist in their present form and in fact even increase in numbers. With competitive pressures mounting, it is possible that margins fall even more and exploitation worsens.
Product fabrication in numerical terms is much more fragile than jobworking in tanning because work is directly dependent on the export market, with most fabricators being dependent on exporters for orders, unlike tanning where jobwork is done for ultimate supply to the domestic market too in the clusters studied here. All fluctuations on the international market are directly felt in the fabricating segment, which is characterised by a very high rate of closure or long periods of no operation. On the other hand, due to the low levels of investment required to set up product making units in general and fabrication units in particular, compared to tanning, the rate of exit is high and not as costly as in tanning. Product making therefore, is characterised by a very high rate of turnover, this being seen most obviously in the fabrication segment.

Fabrication as a phenomenon helps exporters pass the brunt of adjustment on to the fabricator who is the employer of the labour that produces the article. It helps the master tailor turned fabricator to earn more than he would have earned as an employee in the exporting firm, at the cost of greater risk. The fabricator, in turn aspires to obtain export orders himself which will help him rise in the hierarchy. This has been a possibility for upward mobility by the lower levels of production geared mostly to the export market.

There is another aspect to the phenomenon. In Calcutta, fabricators for exporting firms as well as those supplying to large domestic firms have started producing for the domestic market and selling this output in fairs and exhibitions organised by various manufacturers associations. These fairs have become very popular over the years and have actively helped in the expansion of the domestic market for leather products of reasonable quality at affordable rates, something that does not traditionally exist in India for a wide range of leather goods. With these firms focusing on the domestic market, some uncertainty that they face might decline.

The trajectory of growth of other kinds of enterprises is similar in the tannery and product making segments, except that in the latter, even large firms maintain strong links with lower levels, whereas large tanneries might become independent of other firms in the cluster. This is because of the nature of leather product making where most items that are produced are not amenable to mechanised large scale production
as in tanneries. Thus the cluster form of organisation continues to be relevant even for the largest firms in the leather product making segment and there is every likelihood that the forms of production and organisation that are seen will continue to exist in that form. Briefly, it is the need for a high degree of flexibility as well as to keep labour costs as low as possible that dictates the forms of organisation seen in the leather product making segment.

This chapter has presented the results of fieldwork conducted in the Madras and Calcutta clusters in the context of the questions that have been raised at the beginning of the chapter. The next chapter analyses these findings and presents specific answers to the questions raised.