CHAPTER VII

PRODUCT DEMAND, LOCATION AND SIZE OF FIRM

Apart from the non-economic personality variables like the religious, educational and occupational background of the entrepreneur, his cosmopolitaness and his achievement motivation, economic variables like the profitability of the new product or process, the size of the firm and its location, the availability of finance and factors of production like chemicals, machinery and technical skill, the activity of change agents like R and D institutions and the economic policy of the government with respect to the industry are also the probable determinants of the pace of modernization of an industry. It is the aim of this chapter to consider the importance of the factors relating to the entrepreneur's firms like product demand, location and size with respect to the modernization of the tanning industry in North Arcot. The other factors will be considered in the next chapter.

Product Demand and Modernization

An entrepreneur would not make a new product unless he expects such diversification to increase his profit. Hence, the expectation of profit from finishing leather by
a tanner who now makes E.I. leather would be an important factor determining the pace of modernization of the industry. And the profit from finished leather would depend on its demand which in turn is related to the end use of the particular leather.

Characteristics of Demand for semi-finished and finished leathers

In this respect, there is a significant difference between semi-finished leather and finished leather. The former, whether vegetable-tanned or chrome-tanned is imported by firms in Italy, Germany, Japan, England, United States etc. to finish it and supply it to manufacturers of shoes and garments who are situated close by. The semi-finished leather from India is their raw material which they finish to such colour, thickness, softness or other specification of these manufacturers at short notice in accordance with the fashions and styles that are popular at the particular time in the respective consuming countries, and fashions in the Western countries are known to change very quickly. There was no risk of these changing fashions affecting the Indian tanner as long as he was making and exporting semi-finished leather.

But when he decided to make finished leather for export, he has to be careful about the nature of the finish and about the time of delivery. For example, if the Indian
tanner makes sheep suede for garments by snuffing out the

grain side of the skin and dyes it brown but finds that in
the mean time in Italy or France the fashion has changed
to nappa (grain side) garments or the popular colour changes
to navy blue, the brown suede that he has made is unsaleable
even within India. As one tanner put it, "semi-finished
leather is a durable product which can be stocked for a long
time and it has many uses and many buyers, but finished
leather is a perishable product; they are like raw rice and
rice pudding respectively."¹ There is no use making and
stocking brown sheep suede for sale at a later date since no
one can say when the fashion will change in its favour; if
it is not in demand now the tanner who has made it has to
make a distress sale of it at a low price. Finished leather
cannot thus be made in expectation of demand from abroad.
The tanner has to get the orders and then quickly make the
finished leather according to the buyers' specifications
and supply it within the time specified by them.

There is another element of risk in finishing leather
if the tanner starts from the raw skin stage. The raw hides
and skins have varying quality and may have defects like
pox marks, scratch marks caused by thorny shrubs and fencing

¹Interview with B.A. Ahmed Basha of Pernambut who
is yet to make finished leather.
wires which are not cent per cent apparent in the salted skin. Some of these defects make the leather unsuitable for certain finishes. For example, garment nappa cannot be made out of skins with pox marks or scratches.

The End Products of Finished Leather

The principal end products of the different types of hides and skins tanned in North Arcot are as follows:

- **Buffalo calf**: Quality shoe uppers
- **Buffalo hide**: Shoe sole
- **Cow hides and calf skins**: Footwear, upholstery, baggage and belting.
- **Goat skins**: Shoe uppers, suede garments and lining.
- **Red hair sheep**: Grain and suede garments.
- **Wool sheep skins**: Suede garments and lining.

The demand for hides and calf skins is mostly for shoes, the demand for sheep skins which are soft is mostly for garments; and goat skins being soft like sheep skins and also tough like hide are found good for garments as well as shoe uppers, particularly the costlier shoes of men and the footwear of ladies and children. While shoes are a necessary item of consumption, leather garments are a luxury item, even in the West, relatively. These differences in their end uses affect the demand for the different types of skins. The demand for sheep skins thus varies with the demand for garments which fluctuates considerably depending on conditions like fashion change, inflation and economic
depression. Also, unlike shoes, garments are not produced in large bulk and hence the demand for sheep skins is also relatively in smaller lots than for hides or goat skins.

Further, there is no local demand for leather garments in India and so the only local buyers of finished sheep skins would be the firms that manufacture garments for export, mostly situated in Bombay and Delhi. But the one big advantage the sheep tanner in India has is that the red hair sheep skins from some of the districts of Tamilnadu are among the best in the world for making garments. All the exclusive sheep tanners among the thirty entrepreneurs in this study are from Vaniyambadi which specializes in this type of skin.

Hides and calf skins are having a good foreign demand particularly from the United Kingdom, U.S.A., and western Europe. They also have a good domestic demand from makers of footwear. Thus they are economically the safest to tan and the safest to finish too, bark soles and calf uppers having a steady demand both from Indian buyers and foreign.

Goat skins, like sheep skins, are mainly for the export market, but as shoes are more a bread and butter item compared with garments, goat skins have a steadier foreign demand than sheep skins. But even this demand has fallen steeply since 1979 because according to the
tanners, the well-to-do consumer abroad has also been affected by the inflation caused by rising oil prices and he is not buying as many pairs of shoes per year as before.

The average modernization indices of the entrepreneurs in this study who tan exclusively or predominantly each type of hide or skin are given in Table 7.1 below.

Table 7.1. Modernization Scores of Tanners of Different Skins

<table>
<thead>
<tr>
<th>Type of skin exclusively or predominantly tanned</th>
<th>Number of tanners</th>
<th>Arithmetic mean modernization score</th>
<th>Standard deviation of score</th>
<th>Coefficient of variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buff and cow hides and calf skins</td>
<td>11</td>
<td>13.1</td>
<td>8.1</td>
<td>61.8%</td>
</tr>
<tr>
<td>Goat skins</td>
<td>12</td>
<td>16.5</td>
<td>7.6</td>
<td>45.9%</td>
</tr>
<tr>
<td>Sheep skins</td>
<td>7</td>
<td>15.4</td>
<td>8.85</td>
<td>57.5%</td>
</tr>
</tbody>
</table>

Table 30 15.0 8.22 54.8%

It may be seen from the above table that goat tanners in the study have not only a higher average modernization score than sheep or hide tanners but they are also relatively more uniform in modernization. Hide tanners have the lowest modernization score and their variability in modernization is the highest. 'Sheep tanners occupy an intermediate position in both respects.
The higher average modernization score and the lower dispersion of the score in the case of goat tanners is easily explained. Compared with the other skins and hides, goat skins have the highest export demand and are sold in larger lots. Simultaneously with the introduction of the policy of the Government of India in 1973 offering incentives for the export of finished leather by Indian tanners, many large tanneries closed down in Western Europe on account of the rising cost of labour and the strict enforcement of anti-pollution laws by the governments in the respective countries. Hence a higher percentage of goat tanners modernized, particularly in Ambur and they did it faster than the tanners of other skins, taking advantage of the heavy demand for goat uppers abroad and the incentives offered by the Government of India.

The lower average and the wider dispersion of the modernization scores of the hide tanners of North Arcot can be explained on two counts. Firstly, the capital investment required for finishing hides is higher than in the case of skins, and hide tanners being mostly very small firms were not able to afford it. Hides are larger and heavier than skins and so, machines to finish hides are larger and more expensive. Also, compared to skin tanners, they need additional machines like splitting machine, which may
cost over 5 lakhs, if imported, and a hydraulic press which may cost over 2 lakhs. Secondly, as far as North Arcot district is concerned, all the hide tanners of Pernambut in the sample are laggards. Not merely the three tanners in the sample, but the whole set of hide tanners of Pernambut (except one) is yet to make and export finished leather. And this phenomenon is discussed in the next section.

Location of Firm and Modernization

Territorial Specialization of Leather Units

One feature of the tanning industry in North Arcot is that tanners in Vaniyambadi mostly tan sheep, those at Ambur mostly tan goat skins and those of Pernambut and Ranipet mostly tan hides and calf skins. Even a new tanner in an area chooses only that skin which it specializes in. This is partly because the workers in the area and the foremen are trained in tanning the skin concerned and partly because of a psychological feeling that the water in the locality is good for tanning the particular skin. In a few cases the tanners said they tanned a particular skin because the others in the locality have been traditionally doing it which amounts to a case of absolute faith in community wisdom. For example, three tanners of Vaniyambadi interviewed for the study had first tried hides or goat skins, and when they faced difficulties in marketing them they toed the line of the others
in the locality and started tanning sheep. One of them found that goat skins had too much of variation in quality and while good skins in a lot yielded a high profit, the defective ones caused a much greater loss. The tanner at Amur also faces this difficulty but he does not consider it a serious problem and he adopts methods of circumventing it.

Such specialization in skins between localities does not, however, seem to have any particular economic or technical validity now with the advancement of technical skills and knowledge of chemistry and it is not unusual to find cases of successful hide tanners in Vaniyambadi or Amur or successful sheep tanners in Amur or Ranipet. But these are only exceptions and include the innovator in the study who started with sheep skins at Vaniyambadi, but after incurring a loss switched over to E.I. tanning of hides since the latter had a steadier demand and their prices fluctuated less than sheep skins. Another tanner, who is in the early majority in the study, first did hide tanning at Ranipet, then moved over to his home town Vaniyambadi and started tanning sheep like the others there, but within a few months he switched over to goat skins because he found that it had better demand than sheep skins.
Ambur

Ambur is a predominantly goat tanning centre. Goat skins had always been the dominant item in the export of E.I. leather by India in the past, and this trend continues in the export of finished leathers also. The tanneries of Ambur making E.I. and wet blue goat skins were of relatively larger size than those in the other towns tanning hides or sheep skins. Larger firms have a larger capital structure which enabled them to get more sophisticated and costly machinery required to make high quality shoe upper leather from goat skins.

Modernization of the industry at Ambur can be said to start with T. Abdul Wahid who had expanded his tannery and mechanized it by 1960. He was the chairman of the Export Promotion Council, vice-chairman of the Leather Development Council and member of the Seetharamiah Committee in 1972-73. He was the opinion leader of the tanners of the town at the time and a model for the others to follow. Many Ambur tanners built new modern tanneries like him but to a relatively smaller scale, using bank credit like he did and quickly switched over to making finished leather on a large scale.

Pernambut

On the other hand, the Pernambut tanners are tradition bound and conservative and continue to make semi-finished
leather mostly using pit tanning and manual processing. There are nearly 30 tanneries in and around this small town and only one of them makes and exports finished leather. This tannery belongs to a Hindu tanner. Three other tanneries have paddles and drums for E.I. tanning of hides.

The opinion leader of the industry in the town is in our sample, a Muslim aged 56 who is a matriculate and who has been a prosperous tanner and exporter of cow hides for a number of years. He argues against finishing of his hides for export as follows. Finishing equipment is costly, and there is the problem of ensuring quality, promptness of delivery and correct colour-watching with the samples sent by the foreign buyers and difficulty in selling locally the goods rejected by foreign buyers. Circumventing these problems requires considerable strain and one should have telex and other quick communication facilities and make extensive foreign travel to know in detail the changes in demand, to renew contacts, to get new orders and to settle claims, and one should airlift imported chemicals and exported finished leather. Sometimes one should indulge in unethical practices like declaring crust as finished leather in order to escape export duty and earn incentives. The tanner has to be answerable daily to the banker who has lent money for the machinery and also tolerate the technicians in the factory
who are his employees dictating terms to the tanner himself. All this involves risk and tension and loss of status more than commensurate to the extra profit one may make by finishing the leather. The hides now semi-tanned by him are accepted by his foreign buyers without question and his trade mark is well-known and he has adequate buyers from U.K. for both higher selections and second grades. There is also good internal demand for E.I. tanned hides if the foreign market gets dull.

The above reply is an excellent explanation from the social, psychological and economic points of view of the entrepreneur as to why he would not adopt an innovation. The decision not to modernize, here, is the result not of blind opposition to change or ignorance but of a careful subjective analysis of the pros and cons of modernization under the existing circumstances as perceived by him. Unless the circumstances are deliberately altered to weight the scales in favour of modernization, he would remain a laggard.

The other entrepreneurs in Pernambut, mostly muslims do not have even his level of education, though a few of their sons and sons-in-law are graduates (including a B.Tech. in leather technology employed in a large tannery at Abyur). Many of the tanners had visited the nearest hide finishing units, and being small tanners had been easily discouraged
by the scale of capital investment required for finishing hides. And when they find their opinion leader, the richest and most leading exporter feeling that it is better to keep on making semi-finished leather, they think it would be foolish on their part to rush into the finishing field where the 'angels' fear to tread. None of these entrepreneurs including the opinion leader has made a foreign business visit (though a few of them have performed the Haj pilgrimage).

It is possible that the location of Pernambut might also have contributed to the conservatism of its entrepreneurs. Pernambut is 20 Kilometres from Ambur and 12 Kilometres from the nearest railway station, unlike the other three centres studied in North Arcot which are well-connected by rail to Madras. And the first direct bus service to Madras from Pernambut commenced only since 1967, and it was at Madras that all the tanners of Tamilnadu had their sales and export offices. Also, because it is situated in the Gudiyattam Taluk of North Arcot district which has two textile mills, Pernambut has not been classified as a backward area and the tanners are not therefore eligible for the backward area subsidy of 15% on the cost of machinery purchased, which is availed of by the tanners of nearby Ambur. The result is that only four of the thirty tanneries of Pernambut had machines by 1979.
Pernambut has a higher secondary school but no college; and the nearest college providing degree courses in commerce and science is at Vaniyambadi which is over 35 kilometres away. Ambur had its own college started about 10 years ago, but even before that the Ambur tanners have been sending their sons for higher studies to either Vaniyambadi or Madras which were connected to it by rail directly, for over thirty years with the result that the general educational level of the Ambur tanners is now much higher than that of the tanners of Pernambut.

In 1979, however, a significant number of Pernambut tanners started a new tanners' association in the town, and also registered a cooperative society to build and run a service centre for finishing leather in the town modelled after the one at Vaniyambadi. This could very well be described as a revolt against the conservatism of the existing opinion leadership in the place.

Vaniyambadi

The older tanners of Vaniyambadi and Ranipet (most of the latter hailing from the nearby Muslim township, Visharam, which also has a number of tanneries) are also relatively conservative compared to the tanners of Ambur. Prior to 1960, most of the tanners of Vaniyambadi were not
keen on export but mostly sold their sheep skins locally to export houses. With prices steadily improving over the years, this system gave them a stable and satisfactory profit. They were not prepared to take risks and organize their independent export marketing. Also, they did not favour borrowing from banks but occasionally they borrowed from indigenous bankers for short periods; in the latter case it was not necessary to disclose detailed information about the financial position of their firms. They were also not keen on expansion of E.I. tanning with borrowed funds because their experience showed that there were wide fluctuations in the prices of E.I. leather and the larger the business the heavier would be the losses when there is a slump. One of the few tanner exporters of the town first installed machines for E.I. tanning by about 1950 but became insolvent in 1958. This was a deterrent to mechanization of E.I. tanning by the other tanners.

The innovator S.A. Rajamannar was the pioneer in finishing leather. In the sixties he was in a position to influence others by his success in the business but he was tanning hides and the others were tanning sheep, and finishing sheep skins being a more risky business they were not willing to follow his example. In the seventies, however, a small group of young muslim graduates who had come into
this business in the sixties and who had much empathy regarding the need for value-added exports in order to boost the country's foreign exchange earnings broke the traditions of the town's sheep tanners and modernized their concerns in close consultation with each other, though the size of their firms continued to be small in comparison with those of the Ambur tanners. They also did not spend lavishly on buildings and used less of imported machines and more of indigenous machinery. Two of these are in our sample and their example made many others to mechanize their tanneries and venture into chrome tanning and leather finishing. But as most of these sheep tanners had small firms, and traditionally many of them were averse to bank borrowing they were much slower than the Ambur tanners of goat skins in modernizing their firms. There are three goat tanners at Vaniyambadi in our sample and they too are considerably smaller in size than the goat tanners of Ambur. And these facts partly explain the lower modernization score and the higher variation in it, compared with the Ambur and Ranipet centres, as shown in Table 7.2 below. Another reason for the higher variation in the modernization scores is the existence of two laggards in the Vaniyambadi sample in the study. One of them tanned goat and the other sheep, but both have closed down their tanneries on account of personal problems unrelated to the
issue of modernization or government's control over the export of E.I. skins and are now only merchants of the respective tanned skins.

But the Vaniyambadi tanners were successful in forming the first ever cooperative service centre for finishing leather in the state. This would help them to finish leather with a much smaller initial investment on machinery individually than what is normally required. The centre provides dry finishing services on job work basis since 1978. It has 50 members from the town and its authorized capital is Rs. 10 lakhs including an equity participation of the Government of Tamilnadu of Rs. 2 lakhs. The Tamilnadu Industrial Investment Corporation has lent the cooperative society Rs. 30 lakhs and the S.T.C.'s leather Development Fund has provided a Rs. 5 lakh grant to the unit.

Ranipet

In Ranipet, the opinion leadership passed in the early seventies to Khizar Hussain who though little educated was progressive-minded and his erstwhile partner A.Md. Ismail and then on to the former's son Hashim, a graduate who is now the chairman (1980-81) of the Leather Export Promotion Council at Madras. The success of the opinion leaders in Ambur, Vaniyambadi and Ranipet had a considerable demonstration
effect on the other tanneries in the respective localities encouraging them also to modernize their units.

The following table shows the arithmetic mean of the modernization scores of the tanners of the four centres of North Arcot district taken for study and the variation in these scores.

Table 7.2. Industry Location and Modernization

<table>
<thead>
<tr>
<th>Place</th>
<th>Number of tanners</th>
<th>Arithmetic mean modernization score</th>
<th>Coefficient of variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambur</td>
<td>8</td>
<td>18.1</td>
<td>37.5%</td>
</tr>
<tr>
<td>Ranipet</td>
<td>7</td>
<td>15.6</td>
<td>39.0%</td>
</tr>
<tr>
<td>Vaniyambadi</td>
<td>12</td>
<td>15.4</td>
<td>56.9%</td>
</tr>
<tr>
<td>Pernambut</td>
<td>3</td>
<td>3.5</td>
<td>20.3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>30</strong></td>
<td><strong>15.0</strong></td>
<td><strong>54.8%</strong></td>
</tr>
</tbody>
</table>

Size of Firm and Modernization

Theoretically, a large firm is likely to introduce innovations earlier, particularly those that involve heavy capital investment. Compared with small firms, the large firms have the following advantages. They have a larger cash flow. They can afford expensive R and D. They can hire highly qualified technicians. They can have a mix
of speculative as well as safe products. They can short circuit scarcities better. For example, they can instal and use generators during periods of power shortage. They can spread risks easily. They can penetrate markets better and get orders in bigger bulk. Buyers and creditors trust them more than they trust smaller firms, generally. Galbraith called an "industry of a few large firms a perfect instrument for inducing technical change".  

Mansfield was another researcher who was emphatic about a direct relationship between the size of the firm and the speed with which it begins to use an innovation. After a study of over a dozen innovations in five industries he felt that "the evidence seems to suggest that, for firms to respond quickly to certain types of new technology, they must be beyond a certain threshold size", but "this threshold size varies from one aspect of an industry's technology to another, allowing complementarities and interdependencies to exist among large and small firms."  

In the present study, data were collected from the entrepreneurs about the size of the firms using two of its

---


aspects, the average number of skins soaked per day, and the number of labourers employed. The proportion of their output exported by them was also noted. Data relating to the value of their exports were collected from official statistics of exports. After the necessary cross checking and verification of the information supplied by the tanners, they were ranked on the basis of the size of their firms. When this factor was correlated with their modernization rank, a correlation coefficient of \( \rho = +0.58 \) was obtained showing a significant relationship \( (\alpha = 0.01) \) between firm size and the pace of introduction of innovations among the tanners of North Arcot in the sample. The average modernization score of the tanners whose firms were above median in size is 18.2 and that of the below median tanners is 12.5.

Statistics regarding the capital of eleven of these firms as in 1965 were also available from the Director of Industries, Government of Tamilnadu. The rank correlation between their capital and the pace of their modernization in the case of these eleven firms was \( \rho = +0.57 \).

Six among the sample of thirty tanners of North Arcot own large firms registered with the Directorate General of Technical Development (DGTD), Government of India since they had a capital of over Rs 10 lakhs. All other firms in the
sample are registered with the state government as small scale industry units. Those six entrepreneurs include the innovator, the four early adopters and Mecca Abdul Majid from the early majority. And their share in the total leather exports of the country during 1979-80 was 23%. These six accounted for about 75% of the export of the thirty entrepreneurs included in the present study.

Export Performance of the Sampled Tanners

The share of the different classes of adopters in the export of leather during 1979-80 are given below:

Table 7.3. Export Shares of Adopter Classes, 1979-80

<table>
<thead>
<tr>
<th>Adopter Classification</th>
<th>Value of Exports (Rs Crore)</th>
<th>Percentage of export by firms under study</th>
<th>Percentage of total leather exports of the country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovator</td>
<td>3.0</td>
<td>2.6</td>
<td>0.8</td>
</tr>
<tr>
<td>Early adopters</td>
<td>74.3</td>
<td>64.1</td>
<td>19.1</td>
</tr>
<tr>
<td>Early majority</td>
<td>25.9</td>
<td>22.3</td>
<td>6.6</td>
</tr>
<tr>
<td>Late majority</td>
<td>11.7</td>
<td>10.1</td>
<td>3.0</td>
</tr>
<tr>
<td>Laggards</td>
<td>1.1</td>
<td>0.9</td>
<td>0.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>116.0</strong></td>
<td><strong>100.0</strong></td>
<td><strong>29.8</strong></td>
</tr>
</tbody>
</table>
The above table shows that (i) the thirty firms under the present study export nearly 30% of the country's export of leather and leather products, which implies a sizable concentration of leather exports in the hands of the sample of North Arcot tanners; and (ii) there is a domination of leather production and export by large firms here, as the innovator and all the early adopters run DGTD firms. The share of these top five entrepreneurs comes to nearly 20 percent of the country's exports, and they were the earliest to modernize their units fully, such that they make not only finished leather but also one or more leather products like shoes, shoe uppers, garments or wallets. It is not that they became big after they started making finished leather or leather goods, but they were big producers of semi-finished leather (E.I. or wet blue) before they switched over to the finishing of leather. The firms of A.A. Shukoor, T. Abdul Wahid, A. Hafizur Rahman and Mecca Abdul Majid were within the first ten ranks among the country's leather exporters even in 1966 when they were exporting only E.I. and wet blue.

**Differences between Large and Small Firms in the Sample**

Researchers, however, have not obtained any conclusive evidence that small firms cannot have rapid technological change, either. And, even in the present study we have examples of small tanners who were quick in modernizing
their firms. For example, A. Nazeer Ahmed is a small tanner who had finished leather made on job work basis in the finishing units at Madras for export even before the Government of India introduced its policy of modernizing the leather industry. In fact, all the tanners making finished leather exclusively out of sheep skins now have small-sized firms.

The following table gives the distribution of the thirty tanners above and below the median points with respect to the size of their firms and their pace of modernization.

Table 7.4. Modernization in relation to Firm Size

<table>
<thead>
<tr>
<th>Firm Size</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Above Median</td>
</tr>
<tr>
<td>Early modernizers</td>
<td>9</td>
</tr>
<tr>
<td>Late modernizers and laggards</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
</tr>
</tbody>
</table>

Thus, there are six small firms among the early modernizers, and six of the later modernizers and laggards were relatively larger firms, being above the median in size.

When a comparison is made between the large tanners (particularly those that finish goat skins in Ambur) and most of the small tanners under the present study certain
differences stand out prominently between the firms of the two groups. The large firm has new plant buildings constructed on a large land area fully equipped with godowns, pump houses, water supply and storage tanks, effluent tanks, and workers' facilities. The production area is spacious and machines are laid out scientifically. The machines are mostly imported, costly and in some cases automatic and suitable for an output of 5000 skins or more per day. They employ skilled engineers for maintenance of these machines. Chemicals are mostly imported. They hire highly qualified technicians, either a bachelor or licentiate in leather technology, place absolute trust on them and give them whatever machinery and the chemicals they require but expect them to produce sophisticated qualities as demanded by their buyers. These large firms have R and D laboratories occasionally doing some research but mostly concerned with testing the quality of the chemicals used. The firms are very close to the CLHI, frequently in consultation with its scientists, and help them to test their new processes in actual factory conditions in their (the firms') units. The large firm usually has a collaboration agreement with a foreign buyer who provides it with the technical details of processing to be adopted to make the leather he requires. In the initial stages three of these
firms had hired highly experienced foreign technicians to organize the production of finished leather of certain varieties. They make leather of an exquisite finish used to make costly shoes and garments. (A pair of shoes made out of such superior leather is sold around $200.) And their output is mostly for export and their domestic sales are insignificant.

At the same time there also exists a market for ordinary varieties of finished leathers which are used to make moderately-priced shoes and garments, wallets and suit cases and other leather products. It is this market that is catered to by the small tanners who finish leather. However, in view of the variations in the quality of new skins, the output of the large tanners too will consist partly of inferior leathers.

Compared with the large tanner described above, small tanners have their own advantages. They spend little on unproductive assets. Their fixed establishment cost is much smaller. They use a low-capital-intensive technology. Thus they save on interest on borrowed funds. They obtain credit mostly from raw skin merchants and it is interest-free. The ratio of bank borrowing to own funds in their case is much smaller than in the case of large tanners. One large tanner stated that the bank
interest component of the cost of his finished leather is between 35 - 40 per cent. Many small firms in the industry in North Arcot have been successful in making finished leather because they have been fully conscious of their limitations and had deliberately planned their way to overcome them. Such small entrepreneurs have been particularly careful about the quality of their products which they are able to control because of their small size. They are careful in purchasing their raw material. The successful small tanner attributes his success to his establishing a strong personal relationship with a few foreign buyers by virtue of his sincere efforts to maintain the quality of his product and the promptness of his delivery of the same. He has been acutely cost conscious, increasing his profit margin by reducing his costs as he has little control over the price of his product. Many of the small tanners use the cheaper Indian machines and chemicals except in the case of certain materials like fatliquors and dyes. The small tanner prefers labour-intensive to capital-intensive techniques. For example, he may adopt manual spraying of dyes on leather or manual ironing instead of using machines for these jobs. Skin may be allowed to dry by hanging it in shade instead of using a drying machine. One small firm in Vaniyambadi still does vegetable tanning of sheep skins in pits before finishing
them, and it uses an unusually large complement of labour. Such pit tanning gives a mellowness to leather and the firm's Japanese buyers like it. But all these labour intensive techniques make leather finishing take a longer time than it takes for the large mechanized tanneries and so the small tanner is unable to supply to foreign buyers who fix very short periods for delivery.

Further, the small tanner can take quicker decisions than the larger tanner and adopt a flexible marketing approach. During the 1978-80 recession the small tanners survived by selling finished leather locally when the export demand got dull. The researcher found that the smaller tanner had one or more close friends in the industry either in the same centre or in another and consulted them often in the matter of overcoming his production problems and improving his processes and thereby came to know what technology was appropriate for his type of production. Instead of depending on highly paid leather technicians with a bachelor's or master's degree in leather technology who were likely to leave the firm the moment they got a higher pay elsewhere, he usually appointed chemistry graduates who had worked under such experts as his technicians, or he sent these employees or a brother or a son or other relative for a short term course in finishing of leather at the CLRI and allowed them to
manage the production processes themselves. Many small firms were not self-sufficient in machinery but used the machines in other small firms for certain finishing jobs. For example, a number of firms might use an underutilized splitting machine in another firm paying for it on job-work basis. The small tanners of sheep skins at Vaniyambadi have formed a cooperative society of their own which is equipped with a number of costly imported machines and they use these machines for the different jobs in making finished leather as required.

Many small firms have not constructed any specially designed new buildings but have installed a minimum of essential machinery in their old buildings, own or hired, after making slight modifications in them.

The difference in the fixed capital requirements of large and small tanners, for example, is described by a survey of the Reserve Bank of India as follows. A small scale sheep or goat tanning unit soaking 500 skins per day would need 3 paddles, a fleshing machine, 5 drums, a setting machine, 2 staking machines and 2 glazing machines which would cost together between Rs 6 to 8 lakhs (at 1978 prices), while

a unit soaking 3000 goat/sheep skins would need building and equipment costing between ₹ 1 to 1.5 crore.

Also, there seems to be much complementary relationship and close interdependence between some large firms and some small firms. The large firm sometimes is a customer for the innovating small firm. In recent years, some small firms have also been started by technicians who previously worked for the large firms, and in some of these cases the technicians have received financial support from the large firms to start these units.

Thus the small size of an owner-supervised business is not necessarily an obstacle to technical progress in the tanning industry in North Arcot, except that such small firms adopt an appropriate technology and supply to the lower level needs of the market compared to the larger firms which use a sophisticated technology to supply high quality leather to make products used by the cream of the market in foreign countries.

Export of 'Ready-to-finish' Leather

Another ingenuity of some of the small tanners is the manufacture and export of chrome crust leathers which they sometimes call 'ready-to-finish' leather. E.I. tanned leather is chrome-tanned to get semi-chrome which is made soft
mechanically. It is exported with the grain or by snuffing out the grain (suede) and occasionally with a light manual spraying of pigment as ready-to-finish leather variably called as semichrome suede and garment leathers and natural finish garment leathers. It costs the tanner much less than the sophisticated finished leathers as it needs less machinery and chemicals and labour to make. The tanners pay no export duty on it as it is not semi-finished leather, but, on the other hand they get a cash subsidy for this 'so-called' finished leather and so they are prepared to sell it cheaper than even E.I. leather. The foreign buyer thus gets the benefit of a lower price as well as a quality of leather which has been processed to a higher level than semi-finished leather; he has just to give the final finish of colour and design in accordance with the changing needs of his market, which he does easily and quickly.

The larger tanners making sophisticated finished leathers are therefore forced to sell their products at uneconomical prices. So, they protested against granting incentives for this chrome crust leather. The LEPC where the larger tanners have the dominant voice suggested a scheme of graded incentives in 1979 under which fully finished leather would be eligible for incentives, crust leathers would neither get incentive nor be subjected to export duty, and
E.I. and wet blue semi-finished leathers will bear an export duty. The Government of India was agreeable to the denial of incentives to these lower-grade ready-to-finish leathers as it went against its declared objective of encouraging value-added exports of finished leathers, and in 1979 it proposed to introduce new norms for defining finished leather, but then a very bad recession had affected the industry (which has been continuing for over two years unabated) and the small tanners managed to get the proposal for new norms stayed. They also formed a new organization called The Tamilnadu Small Tanners and Exporters Association in 1979 since they felt that the existing organizations of tanners like the Sishma and LEPC are weighted more in favour of the large tanners.

The divergence of views about the modernization of the industry between the early adopters who were large tanners and a majority of the small tanners in the industry was apparent even in the sixties. In 1969, a group of E.I. goat and sheep tanners of Vaniyambadi and a few other places submitted a memorandum to the Government of India urging a ban on the exports of wet blue chrome goat and sheep skins immediately when the four DGTD registered concerns of Ambur

made chrome leather on a large scale and exported it in wet condition to European countries. The memorandum said that "a handful of large tanners making wet blue were monopolizing the raw goat and sheep skin market and thereby were affecting the business of hundreds of small E.I. tanners, their labourers, and the sellers of avaram bark, myrobalan, oil and acids", materials used by the vegetable tanners\textsuperscript{1}. In 1972, while T. Abdul Wahid, an early adopter, was in the Seetharamiah Committee trying to guide the government how to modernize the industry, the South India Tanners and Dealers Association of Ranipet submitted a memorandum to the government protesting against the imposition of any export restriction on E.I. leather\textsuperscript{2}. When the quotas were introduced in 1973 they voiced their opposition to the government intervention through their associations and the trade journals, which they have been continuing even today with the result that the large tanners too had to temper their fervour for faster modernization of the industry when they were discussing the affairs of the industry in the L.D.C. or the LEPC and making representations to the government on behalf of the industry.

In the LEPC Silver Jubilee Celebrations in August 1981, its chairman Hashim, a large tanner who does not export

\textsuperscript{1}Tanner, February 1969

\textsuperscript{2}Tanner, September 1972
E.I. leather at all, pleaded against a reduction of export quota on E.I. leather below the 25% of the 1971-72 level¹.

The Stand of the Small Tanner regarding Modernization.

The present argument of the small tanners is as follows. They are not against fully modernizing the industry. They are willing to diversify upwards. But at present they cannot afford to make sophisticated finished leathers and leather goods particularly with the recession in the trade since 1978. Only the big tanners have been able to buy sophisticated imported machines costing over Rs 30 lacs. Some of these big tanners too, they argue, made and exported semi-chrome and natural suedes initially, reaped the incentives for them and made large profits and they then acquired the sophisticated machines they have. No doubt banks are willing to lend the required money. But, what about the payment of interest? Will the profit from finished leather be adequate for the purpose? It is not fair to wipe out people who have been traditionally in a business without giving them sufficient time to adapt themselves to changing situations. The small tanner faces a number of problems like rising prices of raw materials, lack of capital to construct new buildings and instal costly machinery, lack of marketing service by STC, LEPC and other government or

¹The Hindu, August 23, 1981.
trade bodies, shortage of electric power and water supply, possibility of permanent loss of licence because of their inability to build effluent treatment plants, etc. While suggesting restriction of export by quotas and duty on exports of semi-finished leather, the Seetharamiah Committee had also suggested many positive measures like the setting up of common service facility centres in all tanning localities so that small tanners can finish their leather without much individual investment on machinery, buildings and chemicals. Only one of these service centres has come up in the region, in Vaniyambadi, by 1978. Without providing for these positive measures, the Government of India has been strictly enforcing the negative measures like the quotas and export duty on semi-finished leather. The result is that only a few large tanners are reaping the advantages arising out of the policy of the government of modernizing the industry. Also, even the Seetharamiah Committee did not suggest a complete ban on the export of semi-finished leather. So, the small tanners plead that the cut in the industry's export quotas should not reduce the exports of semi-finished leather below 25% of the 1971-72 level. Also, the government should not reduce or abolish the incentives on export of finished leather but give sufficient notice of it to the tanners so that they would suitably plan the modernization of their units.
The above statement is a summary of what the small tanners interviewed for this study generally expressed when asked about their stand on the issue of industry modernization. Thus, so far as the small tanner in the district is concerned, it is not correct to say that their slow pace of modernization is on account of any traditional dislike of change on their part. But it is because they are gauging their risks well and do not want to be hurried into taking steps that they feel are not commercially advantageous. They feel that the recession since 1979 would have hit them much harder if they had made a larger investment on capital equipment with borrowed money; so long as there is no insurance against falling demand and other uncertainties, heavy investment on capital account will not be advisable for small tanners.

Conclusion

In this chapter was considered the importance of the factors relating to the tanneries of the entrepreneurs like product demand, location and size with respect to the modernization of the tanning industry in North Arcot. Regarding product demand, goat tanners were found to have a generally higher as well as more uniform modernization score than sheep or hide tanners because goat skins, being predominantly used for shoe uppers have a higher export demand. Also,
finishing of hides is relatively costlier and requires larger capital investment and hide tanners are found to be a conservative lot who find E.I. tanning quite profitable still.

Regarding the location of firms, there is a considerable degree of specialization between localities in tanning particular types of skins. The tanners sampled from Ambur, a predominantly goat tanning centre have the most modernized tanneries while those of Pernambut a hide tanning centre are the least modernized, the Ranipet and Vaniyambadi tanners occupying the two intermediate positions. The faster modernization at Ambur can be partly explained by its specialization in goat skins and partly by the influence of opinion leaders like T.A.Wahid and the larger size of the firms there. The slower modernization at Pernambut can be explained by the conservatism of its tanners particularly the opinion leaders.

Regarding the size of the firms, the larger firms have modernized faster, generally. But some of the smaller firms had also been progressive but they had used techniques appropriate to their circumstances. Also, whether his firm is big or small, the adoption of an innovation by an entrepreneur depends on his estimate of its profitability and risk. A small firm unwilling to adopt an innovation may be a sign of realism and not of backwardness.
While this chapter dealt with factors intrinsic to the firm, the next deals with the extrinsic factors particularly assistance to modernization from institutions in the fields of transfer of technology, marketing and finance.