CHAPTER 8

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

8.1 The review of Indian leather industry in the earlier chapters has highlighted some salient features of the industry, its progress in the recent past and problems retarding its onward march. It has also analysed the framework of policy to solve these problems. The information presented in these chapters can be used to have both quantitative and qualitative perceptive of the leather industry so that other countries embarking upon planned development of this industry can avoid some of the pitfalls experienced by the Indian leather industry.

8.2 Chapter 1 - has provided macro-economic overview of the Indian economy during the planning period. It has affirmed that rapid growth of population on one hand and relatively slower economic growth on the other hand were responsible for low standard of living and low human development index in the past. However, it has struck an optimistic note that the economic reforms initiated since 1991 have opened a new era of sustainable economic growth for India and has appreciated structural changes in the economy which are taking place in the post-reform period. Boost to industrial development, including that of leather industry, is attributed to a) Dismantling of industrial licensing b) Diminutive role to public sector, c) Relaxation of MRTPA, d) Entry to foreign private investment both direct and portfolio and e) Rational price policy.

In this chapter, while presenting profile of the economy of Tamil Nadu State, it is observed that Tamil Nadu ranks first in average annual growth rate among biggest states, it has fourth rank in terms of contribution to All India State Domestic product; it is only second to Maharashtra in employment of industrial labour. It has the distinction of having the highest credit deposit ratio of commercial banks and credible network of varied infrastructure, with the 9th rank in the HDI among the Indian states.
The chapter has drawn attention to the significance of present study of leather industry with highest livestock population in India, huge export potential and social welfare implication of under privileged cobblers community in rural parts. The chapter has proposed the hypotheses for the study regarding a) Proximity of leather industry and Central Leather Research Institute in Tamil Nadu and b) Export orientation and its stimulus to technological and managerial upgradation of the Industry. As a background for subsequent chapters, this chapter gives an outline of research methodology, information about livestock recources in India, availability of hides and skins, historical profile of the Indian leather industry and leather industry in Tamil Nadu State.

8.3 Chapter II has dealt with Tanning Industry in India. The main findings of the chapter are:

(1) Small Scale Industry enjoys lion’s share in the organised sector of tanning industry constituting a) 93% of total number of units, b) 70.85% of production capacity and c) 75% total exports. With the advent of mechanised technology, these is almost irreversible decay of cottage industrial units.

(2) There is geographic imbalance in the development of tanning industry with 88% of tanneries located only in 3 states namely, Tamil Nadu, West Bengal and Uttar Pradesh. Tamil Nadu continues to enjoy first rank in the industry with maximum concentration in the capital city of Chennai.

(3) Industry has experienced faster growth after 1975 as compared to the earlier period of planning.

(4) This growth is an outcome of policy initiatives like restrictions on exports of raw goat skins, incentives for exports of value added finished leather goods as well as global shift of tanning industry from developed to developing countries on account of rigorous pollution controls in developed countries.

(5) The industry is plagued with the problem of capacity under-utilisation ranging from 30 to 50% in different stages of processing. Problem of excess capacity has its origin in scarcity of raw skins and hides, power failuers, paucity of working capital and marking practices.
(6) India’s share in global imports of hides and skins is negligible but even with targeted increase in leather product by more than 200% by 2000AD, domestic sources of this raw material will have to be supplemented by more imports.

(7) Cost analysis and value added data for different stages in leather industry indicate that the final value of finished leather products is about 600 as compared to 100 of raw hides and skins. It is thus imperative that exporting raw skins and hides is an imprudent policy for a country like India. It is found that shift from such exports to these of finished leather products has generated additional foreign exchange of Rs. 1010 cr. in a single year.

(8) Location shift in tanning units from rural to urban areas has reduced the share of rural employment in this industry. In fact, the study exposes dualist character of the Industry by observing that improvement in technology, surge in productivity and higher return on capital investment in organised sector have not percolated to rural tanning sector.

(9) The study has inferred that planners have failed to recognise the angle of distributive justice in the development process of tanning industry and have provided no social safety neties for those who are dispossessed and deprived of their sources of livelihood – a phenomenon caused by the dependance on modern technology.

(10) The study has shown concern about environmental damage caused by tanning units mainly through water pollution, the conclusion is supported by the fact that on an average every day 50-60 million litres of waste water are discharged by tanning industry without any treatment. To lessen the severity of the problem, measures like common effluent treatment system are already introduced at a few places. The callous neglect of environmental aspect may cause influx of MNCs in the industry presuming India to be a pollution heaven or a dump yard for unhygeinic production activity prohibited in the developed countries. This would certainly not be in the long run interest of the Indian economy.

8.4 In Chapter 3, an attempt is made to have a close look at the present position and problems of leather products sector in India. The chapter has identified three major leather products namely, footwear, leather garments and other leather products like
bags, purses, belts, wallets etc. Direct employment provided by this sector is more than 1.5 million. It has 5—6% share in total foreign exchange earnings from exports. During the reference period from 1986 to 1996, exports have surged ahead from the 779 cr. to Rs., 5578 cr.

Regarding footwear production, it is found that modern sector in confined to a few major cities like Chennai, Ambur, Agra, Delhi and Calcutta. In India, footwear production is basically reserved for small scale sector. However, large industrial units have managed to make inroads in this sector by accepting export obligation of 75% of total output, thereby remaining production can be off loaded in domestic market. It is a distinguishing characteristic of modern large and medium sector in footwear industry that 70% of labour force consists of women workers. These is a definite evidence to substantiate the claim that most of small industrial units in Tamil Nadu state have come up after 1986. For example, in Chennai, 89% units are set up after 1986, while in traditional centres like Mumbai and Calcutta, the units are relatively ‘aged’, set up prior to 1980. Further, it is a noteworthy feature that 69% of large and medium sized units have sprung up after 1986. Promotional measures of government have yielded these positive results in the recent past. However, in their eagerness to set up new units, entrepreneurs have not been able to fully utilise the installed capacity. Capacity utilisation in footwear production is in the range of 61 to 67%. Such gross under utilisation capacity is a reflection on lacunae in managerial set up of this sector, lack of continuous orders, labour shortage, paucity of raw material, frequent damages of machines, non-availability of spares, volatile nature of fashions and frequent changes in designs and signs, lack of brand image, scant regard to delivery schedule and lack of proper market intelligence are some of familiar causes for the capacity under-utilisation. On the human resources front, high labour turnover among skilled workers and overall shortage of trained manpower are accompanied by absenteeism and militant trade unionism.

The chapter has attempted estimates of footwear consumption in India. From the study for this purpose, the following conclusions emerge, 1) Habit of wearing footwear regularly is more pronounced in urban population. 2) Per capita
consumption of footwear is only 1.80 pairs per annum. 3) Almost 60% of this comprises non-leather footwear, 4) Consumption rate is lower among female population, which again exhibits gender bias in the Indian Society. 4) Majority of the consumers are concerned with the cost aspect while making their buying decisions. Information collected for this study reveals that 310 out of 400 footwear manufacturers in the organised sector are engaged in export operation, 87% of them sell their entire output in export sector.

The Chapter has further explored into leather garment sector which has emerged as a high value-added export-oriented sector. This sector also indicates concentration of production in Chennai, which has 48.7% of total manufacturing units. Export earnings from this sector have soared from Rs. 27.8 cr. in 1985—86 to Rs. 1386.9 cr. in 1995—96. Capacity utilisation is about 68% of total installed capacity. The sector, due to its mechanised production processes, generates relatively less direct employment of about 32000 workers (compared to footwear sector) of which 45% are women. Inspite of its impressive performance in the recent past, the sector is not without its problems. It is found that problems causing concern are related to financial constraints, vagaries of export market, lack of technically qualified personnel, and maintenance of imported machinery.

Regarding the sector of other leather goods, Chennai again leads ahead of other centres, with 135 out of total 391 units in organised sector. It also provides 46% of total employment in India in this sector. The sector is found to have problems related to seasonal nature of demand, difficulties in procuring finished leather, wastage of cutting and trimming of leather and large percentage of rejection particularly in export sales.

The chapter concludes with the observation that the leather sector occupies a significant position in Indian economy. Being a leading exporter, providing direct and indirect employment to 2 million workers and having a marked comparative advantage vis-a-vis other countries showing potential to be a major player in the global market. Qualitative change in the composition of exports from hides and skins to finished leather products augurs well for the Indian economy.
Chapter 4 can be construed as a core chapter in this study. It has embarked upon a situation analysis by using secondary data. On the basis of specific definitions, the study has identified 'stresses' in the Indian leather industry, backed by qualitative and qualitative indicators. Stresses lead to 'problems', solutions for which have both 'potentials' and 'constraints'. With reference to each stated problem, action areas are identified, objectives formulated and action plans proposed.

The chapter has identified following major problems confronting the industry:
1) Decline in availability of livestock caused by high mortality rate of cattle. 2) Unhygienic and inefficient operations of slaughter houses, 3) Inadequate training to personnel in the industry. 4) Pollutional hazards of the tanning industry. 5) Locational imbalance of the tanning industry. 6) Under-utilisation of installed capacity in various segments of the industry. 7) Difficulties related to finance, marketing, mechanisation, exports, raw materials and spare parts, 8) Backwash effect of the organised tanning sector on the rural traditional sector. 9) Difficulties in producing indigenous machinery and spares, 10) Low footwear consumption within the country, 11) Productive use of waste material. All of the above problems are, in fact, culmination of a number of subsidiary problems which require attention in the composite action programme.

The main recommendations, based on the proposed action programmes, are
1) The Departments of Agriculture, Animal Husbandry, Forests and Irrigation of States should have proper co-ordination in improving availability of veterinary services, supply of water and fodder for livestock and in creating awareness among livestock owners about the health care of animals.

2) The State Governments, with the help of CLRI should set up careass recovery centres for efficient recovery of fallen animals.

3) Legislative framework, financial support and infrastructural help should be extended by state and local govt. to improve the conditions of slaughter houses for better quality of hides and skins. There is need for strict ban on unauthorised slaughter houses.
4) The CLRI, Institutes and Colleges of Leather Technology, ITIS should draw up specific schemes to provide training facilities on the basis of man-power budget of leather industry.

5) Wherever possible, common effluent treatment plants should be set up for the tanning units in the organised sector. For this purpose, CLRI be empowered to consolidate R & D efforts in the field of pollution control.

6) To have more diversified growth of the industry, new licences should be restricted in already congested areas in states like Tamil Nadu and West Bengal. At the same time, fiscal and financial incentives should be provided in those states which are identified as under-developed in respect of leather industry by CLRI.

7) Fuller capacity utilisation should be achieved through uninterrupted power supply, institutional arrangements for working capital, orderly supply of raw materials and other inputs and by reducing seasonal fluctuations in demand.

8) To increase India's share in global market for leather products, entry of MNCs be encouraged with export obligations, brand images be strengthened through concerted actions of promotional agencies of state and central govt. and special incentive package be evolved to enable existing units to realise higher export earnings. For this purpose local manufacturers should be encouraged to secure ISO certification and quality control.

9) SIDBI should open a special cell to provide refinance to banks and other agencies financing small manufacturers in leather industry. State Financial Corporations should devise schemes for term loans to such units at concessional interest rates.

10) Imports of raw hides and skins should be liberalised to supplement domestic sources of raw material particularly to export-oriented units.

11) KVIC should provide financial assistance and technical know-how to traditional tanners.

12) Co-operative societies of cobblers should be formed at different stages of production and all financial assistance of state govt. and other agencies to individual producers should be routed through such co-operatives to ensure better monitoring of the end uses of such assistance.
13) Registration of all tanning units should be made mandatory to have better supervision and regulation of their working.

14) R&D should be geared up to reduce production cost of footwear to increase per capita consumption of footwear.

15) CLRI should provide technology developed by it to ensure productive use of waste generated in the production processes.

The chapter has presented functional linkage matrix to highlight relationship between different schemes to lessen the hardships and to improve the working of Indian leather industry. Though the study has not attempted specific details of each scheme, it has provided an internally consistent and operationally feasible analytical framework for the concrete action plan. It is hoped that such analytical approach would reduce cost and increase benefits from such concrete action plan. It would also mitigate bureaucratic hurdles in implementing the plan.

Chapter 5 is devoted to an exhaustive survey of India's Industrial Policy since Independence. After tracing changes in the policy during planning period, the chapter has discussed policy framework for the orderly and harmonious development of different sectors of India's leather industry. It is found that the planners have taken cognisence of special problems of leather industry only after 1970 when the Union Government appointed the 'Committee on the Development of Leather and Leather factors for Exports, under the chairmanship of Dr. Seetharamiah. The Committee suggested a two pronged strategy.

a) Reorientation of export-import policy, b) Initiatives to modernise the industry through creation of infrastructure for finished leather production.

A) The Committee recommended both tariff and non-tariff barriers to exports of raw skins and hides. Tariff barriers included imposition of export duty on raw skins and hides with progressive reduction in duty rates for later stages of production, culminating cultivation into cash subsidy for leather products. Non-tariff barriers included quantitative restrictions on exports of raw skins and hides by fixing quotas for individual exporters.
B) The Committee appreciated the fact that mere ban on exports of raw materials without positive effort to ensure their utilisation in domestic industry can spell disaster for poor class depending on sale of such skins and hides. Hence, the committee recommended schemes to encourage entrepreneurs to start units at the centres of plentiful supply of these raw inputs. For this purpose, it favoured cash subsidy for exports, import replenishment and participation of foreign investors. It also wanted government to allow liberal imports of machinery required by tanneries and by producers of footwears and other leather goods. Other measures included setting up of Bharat Leather Corporation, income tax relief, establishment of common facility centres out of proceeds from Leather Development Fund and technology transfer.

Year 1991, a landmark year in the history of India’s economic policies bid farewell to the earlier regime of bureaucratic centre like industrial licensing. While keeping production by tanneries from raw to semi-finished leather reserved for small scale industrial units it allowed entry of medium and large industrial units in production stage from semi-finished to finished leather. Govt. also dispensed with licensing for leather products and capital goods required by the industry. For manufactures in Export Processing Zones, no import duty is payable on imports of capital goods and other inputs and for 100% export oriented units, there would be no locational restriction by the government. 51% foreign equity participation is allowed in the manufacture of leather products, chemicals and other components required by leather industry. On the credit policy front, concessional finance is extended to exporters in the form of pre-shipment and post-shipment credit. With convertibility of Indian rupee on current account and realistic exchange rate policy, exporters can realise larger proceeds from their exports. Thus, the leather industry, like many other Indian Industries, is now destined to be an integral part of global economy, providing opportunities to enterprising producers to consolidate their position, while posing challenges for those whose status-quo can not ensure survival under the protective umbrella of state patronage.

Chapter 6 is another core chapter of the study highlighting the pivotal role played by the Central Leather Research Institute (CLRI) in the development of India’s leather industry. The study has examined various aspects of the working of CLRI and
listed its achievements in evolving new technologies and their assimilation in the actual production processes. CLRI, founded in 1953 and located at Chennai in Tamil Nadu state, has emerged as the largest leather research institute in the world both in terms of quantitative and qualitative development of manpower resources. Apart from basic and applied research in biological, chemical and engineering areas relevant to leather industry, CLRI has trained employees in the Industry, conducted market research and techno-economic surveys, provided technical assistance and consultancy services and induced technology transfer to actual entrepreneurs not only in India but also in a number of developing countries.

Among more significant achievements of CLRI are 1) it runs a pilot tannery to train tannery executives in the Industry to use new processes according to international demands, 2) it has set up a Centre for Leather Accessories Development (CLAD) to assist producers of leather goods and leather garments. 3) Its Shoe Design and Development Centre has made its mark in the areas of footwear research and fashions. Its emphasis is on quality control in the manufacture of footwear to make them acceptable in international market. 4) Its Polymer Division, with its State of Art laboratory and equipment has developed essential polymer products required by tanneries. 5) Its Department of Industrial Organic Chemicals has contributed to development of newer blends of chemicals and utilisation of waste material into valuable products. 6) Its Bio-Sciences Division has made fundamental research in areas of Bio-products, Biomaterials, Collagen and Bio-technology, the areas having extensive use of leather industry products in different industries and professions like medical services. 7) It has rendered services in design and development of projects like Tanneries, Chemical Plants and other sectors of the industry. 8) Its Economic Research Division has compiled authentic data, prepared action plans and blue-prints for the development of leather industry, prepared feasibility reports for setting up of production units, conducted overseas market intelligence study and has, in general, acted as a catalyst of the industry. 9) Its research in Environmental Engineering has paved the path for introduction of eco-friendly processes and chemicals at different stages of production of leather and leather goods.
The CLRI, through its quality research work, has developed new products, invented new production processes, innovated a number of cost-saving devices and through all this, has endeavoured to effect metamorphosis of Indian leather industry from a craft ridden traditional one into technology driven modern sector, with robust confidence to be a major player in global market known for vagaries of fashions, concern for quality and brand image and increasing focus on preventing environmental damage. With the conclusion of 8th GATT and emergence of WTO, the days of state regulated foreign trade are drawing to a close when India will enter next millennium, quantitative restrictions on imports and exports will wither away, Import Duties will be drastically slashed, domestic market will be accessible to foreign producers, consumer goods markets will be buyers’ markets, big MNCs conglomerates may create technological barriers to new entrants, brand images will be a valuable intangible asset, mergers and acquisitions will be order of the day. Under such dynamic environment, Indian leather industry can prosper only by technological excellence, for which CLRI is poised to play a decisive and affirmative role.

Chapter 7 has examined the transfer of technology and technical assistance from developing to another developing country. For this purpose leather industry has been put in focus as an example (India and Sudan), the worth-mentioning points in this respect are:

1. In most of the developing countries, foreign technology constitutes a large part of their technology system without meaningful integration with indigenous elements which led to the appearance of technological dualism in the form of co-existence of advanced as well as traditional sectors. This, in fact, shows the inappropriateness and relevance of the technology transferred from the advanced countries to cope up with the contexts and solve the problems confronting the developing countries.

2. The reason why the developing countries are still opting for technology transfer from the advanced countries could be their hurry up and eagerness to compress development in as short a period of time as possible at a lesser cost. In this respect, the developing countries generally overlook the fact that the level of development being attained by these countries is the outcome of very long period of time.
3. The study has affirmed the relevance of technology transfer between developing countries for the following benefits:

⇒ To avoid alienation and brain drain
⇒ Appropriateness established on similar background and conditions
⇒ Provision of more employment
⇒ Easy terms and conditions with minimum complications

4. India, on account of its steady economic development, high level of industrial as well as technological progress is found capable enough to play fully the role of transferring technology from a developing to another developing country, specifically in the field of leather industry.

5. As far as leather industry in Sudan is concerned, the country with its huge livestock resources estimated to be at 103 million head of cattles, sheep, goats and camels is supposed to play a major role in this field, but unfortunately the existing situation reflects a very gloomy picture as the country is having only 9 modern tanneries and 300 traditional ones, together producing 33 million sq.ft. of skin-based and 29.5 million sq.ft. of hide-based leathers. Whereas the leather products sector backed by 72 small and medium scales factories, producing mainly footwear and leather goods for local consumption.

6. Sudan at present exports only semi-finished and finished leathers that even happened only after the ban that imposed in 1990 on the export of raw hides and skins. The leather industry in Sudan confronted with many problems, namely low capacity utilisation (40%), low level of employment, shortage of trained personnel, difficulty with spare parts and low quality of raw material. All these problems contributed negatively to modernisation and development of leather industry in Sudan resulted in total disappearance of the country from the list of the countries exporting finished products like footwear, leather garments and leather goods. However, Sudan continued as a regular supplier of raw materials to the industries around the world. To this effect, immediate actions are called for to develop fully this sector in order to minimise its gains in terms of value-added products for exports as so that the country can carve for
itself a proper place in the leather map of the world. Towards this end, the present study advocated technological tie-up with India with CLRI as a Central Point.

Foregoing discussion in this study can render assistance to verify the validity of main hypothesis of the study. As stated in the first chapter, the first hypothesis mentions that a relatively faster growth of leather industry in the state of Tamil Nadu as compared to other Indian states is made possible by its proximity with CLRI. While making scrutiny of this hypothesis, it is necessary to find out answers to the following questions (1.) How far is it true that development of leather industry is faster in Tamil Nadu state as compared to that in other states? (2) If it is faster, how far is there a causal relation between the presence of CLRI at Chennai and development of leather industry in Tamil Nadu?

For seeking possible answers to these questions study drew information from available published data and supplemented it by questionnaires and interviews with faculty of CLRI and owners/managers of producing units in the state of Tamil Nadu.

On the basis of evidence collected through such sources, the inferences are drawn as follows:

1. Development of leather industry in Tamil Nadu cannot be much attributed to abundant local supplies of raw material. It is interesting to note that regarding availability of hides and skins, Utter Pradesh ranks first in cattle hides and buffalo hides. Bihar enjoys top rank in goat skins while Andhra Pradesh is a clear leader in the production of goat skins. It, thus, suggests that other states are better endowed with supplies of raw material and yet they have not been able to match performance of Tamil Nadu in production of leather and leather products. Implicate in this observation is the presence of other factors probably one of them being promotional role played by CLRI which can explain this performance.

2. The data clearly show the prime position established by Tamil Nadu in development of tanneries. Out of 1008 small scale tanneries in India, 536 are located in Tamil Nadu. This accounts for 53% of share of state in total number in this sector. Similarly, out of 75 medium and large sized tanneries licensed by DGTD, 41 are situated in Tamil Nadu. It represents 55% of share of the state. Thus it is
irrefutable fact that more that 50% (to be precise 53.3%) units are operating in Tamil Nadu. Next to Tamil Nadu, is the state of West Bengal, with a share of 21.5%, which is far behind that of Tamil Nadu.

3. The total number of 75 DGTD units mentioned above includes 7 sick units. It is important to note that incidence of sickness is averted in the state, which is a performance indicator in qualitative terms.

4. Among major footwear producing centers in the country, three larger centers, namely Ambur, Ranipet and Chennai belongs to Tamil Nadu state. They together have 148 units out of 400 units all over India. Thus share of Tamil Nadu is 37% of all India footwear production. What is more important is spurt in number of units in Tamil Nadu since 1986. At all India level, out of the total footwear producing centers, about 61% were set up after 1985-86. In the case of Tamil Nadu, 78% units in Ambur, 95% in Ranipet and 89% in Chennai have sprang up in this period. Hence, superior performance of Tamil Nadu state in leather industry is relatively a recent phenomenon. Among footwear producers devoting their production to export market units, from Ambur and Ranipet in Tamil Nadu state are prominent while producers in Chennai have captured sizable share of domestic market. (6) In production of leather garments also, out of 310 units surveyed as many as 151 belonged to only Chennai, giving it a share of 48.7% among all the units in India. Next to Chennai is Delhi, whose share is 14.8%. Chennai also has 32.2% share in total installed capacity in all India production of leather garments.

5. Tamil Nadu state has made more diversified spread of leather industry in the sense that it has apart from Chennai, at least five major centers. Similarly, its focus is on fostering small scale industries instead of few giant sized units. For example, in the case of leather garment, average production per unit in Chennai is 1973 pieces per month, as against all India average of 3007 pieces.

6. Not only in production but also in employment, Tamil Nadu state has a clear lead over other states. For example, Chennai alone has 44.8% share of total employment of labour production of leather garments. It should be noted that its share in production is about 32%. It thus indicates that plant output ratio is higher in Tamil
Nadu implying use of more labour intensive methods of production, a factor relevant from welfare point of view.

7. In the sector of other leather goods, again, Tamil Nadu ranks first, closely followed by West Bengal. Tamil Nadu has 138 units of which 132 are in Chennai alone. Out of 132 units in Chennai, 110 units have been set up since 1985. It again supports the view that momentum is particularly faster during the period under survey of this study. If one takes period before 1985, Calcutta in West Bengal had 50 units, while Chennai has only 22 units, but this gap is almost closed in subsequent period in leather goods sector.

8. Tamil Nadu also has more diversified product mix in the production of leather goods. Out of 7 different categories of products, Chennai produces 6 categories, while Calcutta has it in only 5 categories and Kanpur in 3 categories.

9. Chennai also commands 46% share in total employment in units producing leather goods, while Calcutta’s share is just 12.3%. But this observation overlooks the fact that in Calcutta, the practice of giving job work to artisans in household sector is more widespread and also employment in unorganized sector is much larger than what is found in Chennai, where most of production activity takes place internally and within the organized segments of tiny, small and large units.

Once the fact of relatively faster development of leather industry in Tamil Nadu is established, it is necessary to probe into the factors responsible for this phenomenon. In real word, no significant phenomenon has its origin in one signal factor. Historical development of industry is manifestation of multitude of socio-economic forces at work. It would, therefore, be unreasonable to give all credit of leather industry’s growth in Tamil Nadu to C.L.R.I. at Chennai. Regular supplies of raw material, availability of committed labor force, rise of local entrepreneurship, state assistance, traditional heritage of partisanship can be some factors accounting for such development. Empirically, it is difficult to isolate one factor and ascertain its bearing on the phenomenon in question. However, as Samuel Butler has remarked “Life is an art of drawing sufficient conclusions from insufficient premises.” If one mixes this art with spirit of scientific
inquiry, it is possible to use some circumstantial evidence to draw meaningful conclusions.

In this context, the role played by C.L.R.I. in development of leather industry in Tamil Nadu can be gauged on the basis of following observations:

1. Most development of leather industry in Tamil Nadu state has occurred in later part of economic planning in India. During this period, CLRI has been active in its research and promotional activities. In fact, CLRI and leather industry in the state have grown together.

2. Personal interviews and questionnaires as well as case studies of individual units in Tamil Nadu state have confirmed the fact that both small and large units in leather industry in the state have excellent rapport and regular facilities available at CLRI for quality control, constancy and technological upgradation.

3. In an exercise for establishing the fact of closer link between CLRI and leather industry in the state, recent research conducted by CLRI selected 10 units in Chennai and 10 units in Mumbai at random and asked them whether they were aware of existence of CLRI. 80% respondents in Chennai had affirmative answer, while only 20% from Mumbai had similar response. When further asked to units in Chennai, whether they have employed labor force having secured some kind of training at CLRI, 60% respondents told that their staff has availed of these facilities at CLRI.

4. As an indirect proof of assistance rendered by CLRI to industry in the state, it is found that of 12 technology agreements made by CLRI with specific individual units, 8 are in Tamil Nadu state. Some large scale units like Balmer Lawrie and Co. at Chennai, Rallies India Ltd., Chennai, Silver Hills Pvt. Ltd., Attur, Chamundi Leather at Chennai have used technological expertise of CLRI to their own benefits.

5. Various events organized by CLRI like LERIG and India International Leather Fair (which later took its present shape with CLE and ITPO as co-sponsors), there was maximum participation of delegates from Tamil Nadu state, indicating their eagerness to associate themselves with activities of CLRI and thus become a part of mainstream of modern leather industry with global connections. It must be acknowledged that local entrepreneurship at centers like Chennai is found strikingly responsive to
impulses provided by research organization like CLRI. Inventions at CLRI are translated into innovations by these entrepreneurs who have demonstrated business acumen to seize available opportunities to their own advantages. In course of time, CLRI has emerged as international research institute and thus it has much wider perspective and responsibility than only to cater to requirements of local units. At the same time, very presence of such organization has awesome effect on local units which look toward CLRI as their friend, guide and philosopher.

Second hypothesis of present study states that emergence and spread of export oriented industrial units in the field of leather and leather products have encouraged the process of technology and managerial upgradation of leather industry in India. The study has abundantly demonstrated that recent development of leather industry is an export-led growth in the sense that large number of newly set up units are exclusively or predominantly working towards exports. In the sector of leather garments, main thrust of government policy is to motivate those units to export semi-finished and finished product and realize higher foreign exchange earnings. Quantum jump in export trade and higher value-added by export oriented units have been silent features of recent development in this industry. In fact, many new entrepreneurs, including big corporate units are attracted to leather industry due to prospects of higher post tax returns on capital invested in export oriented units.

Orientation towards export has added a new dimension to historical process of development to create competitive edge for Indian leather products by improving quality and introducing variety by reducing cost of production by having more aggressive marketing and by sharing cream for attractive packaging and timely delivery of products to foreign buyers. Thus, there is increasing awareness that India can carve out a place for itself in international leather market only by adopting latest technology and mastering professional, managerial standards. Indian leather products have started creating brand image in international market. Similarly fashion-design-exports from India have introduced new styles, new colours and new designs suited to the taste of Fashion Gurus in the western world. Entry of MNCs in leather industry has boosted drive for managerial
excellence, goaded by exacting work standards and attractive pay packages. No doubt, this process of technological and managerial upgradation has left unorganized sector in leather industry in wilderness, because even domestic market for leather products like footwears is being progressively captured by branded products of organised sector. Advertising on flirts through electronic media have further eroded market for unsophisticated unbranded products of unorganized sector. This can be considered a serious challenge to policy-makers how to rehabilitate artisans and workers in unorganized sector in the wake of brute forces of competition of organised units which are thriving with various incentives provided by government on one hand and with their own technical and financial muscle power on the other hand.

The present study, thus is a humble endeavour to unfold saga of development process of India’s leather industry - with all its positive and negative features. The study, at the end, wants to indicate how other developing nations like Sudan can benefit from India’s experience of leather industry. If one takes the case of Sudan, an African nation rich in livestock resources of diverse species, lessons from Indian experience indicate

1. Development of leather industry cannot be totally left to market forces selective intervention by government in early stage of development is both inevitable and desirable. This intervention must consciously attempt to provide level playing field to local producers vis-à-vis foreign competition.

2. State intervention need not be mistaken for bureaucratic hurdles. Regime of industrial licensing, production quotas, price fixing legislations, rationing of raw materials through administrative fiat can do no good to the industry. What is required is policy to make producers efficient by encouraging them to adopt modern technology and other cost-saving devices.

3. Recent experience of U.S. military attacks even on innocuous industrial establishment in Sudan exposes perils of depending too much on support from such super-powers. It shows the resultant effect of hasty package deal with advanced countries as has been highlighted earlier. This particular case is an indication that it would be better if South-South Co-operation is involved to utilize vast reservoir of natural resources of Sudan.
In this respect, following suggestion for co-operation between India and Sudan are in order:

1. In the last 50 years, India has developed new technologies in the production of various chemicals required by leather industry. India can transfer this technology to Sudan preferably accompanied by equity participation by Indian enterprises in Sudanese industrial companies.

2. There can be vertical integration in production process between Sudanese and Indian enterprises. Sudan can presently specialize in tanneries and production of semi-finished leather area. India should focus on production of leather goods like footwears where considerable fashion designing is called for.

3. Capital goods and their components required by leather industry must have some economics of large scale. Presently, Sudan does not have such spread of leather industry to sustain full-fledged production of capital goods with comparative advantage. Hence, India should provide concessional supply of such capital goods to Sudanese leather units for which India’s EXIM Bank should provide necessary credit to Sudanese importers.

4. Species of animals, and their availability are not exactly the same in two countries. Hence, they should jointly offer their respective products in international market by using expertise of Export Promotion Councils in India. They should preferably use the same brand name for their products to increase acceptability in global market.

5. CLRI should open its African Development Center in Kharatoum, capital of Sudan from where it can help leather industry not only in Sudan, but in other African nations. Funding for such research institute should be jointly made by two national governments and private sector corporate entities.

6. Both countries should make a time-bound perspective plan to achieve targets of production exports and employment in leather industry and there should be permanent monitoring of such plan by Joint Consultative Committee of two countries.

If these suggestions are further worked out in details, two countries can usher in an era of fruitful co-operation in similar other field where common interests of two countries can serve as a unifying force to combat exploitative pattern of present
international trade dictated by advanced capitalist nations. Fusion of ideology and technology can produce miracles in Afro-Asian economic relations.