CHAPTER 6

FINDINGS, OBSERVATIONS AND SUGGESTIONS

Light engineering industry has an important place in the industrial scenario of Kerala. Most of the industries in light engineering sector are working on demand created out of the growth of civil construction sector and also due to the rising number of cars and other automobiles sold out in the state. In reality, the percentage of industrial units which are working as production units is very less. The future of the light engineering units mainly depends upon the purchasing power of the people of the state who spend in civil construction as well as in owning vehicles.

So long as the new generation concentrates on acquiring better higher education, they will continue to get good jobs and good earnings. Under this background, spending on housing and other civil construction along with investments in vehicles will continue and this will ensure good market for all the sections of light engineering units.

Again, large number of technically qualified youth who are passing out can think of developing new products including households and kitchen equipments. With the increase in the number of working women in Kerala, there is rising scope for developing equipments and products which will reduce the burden of the working women. Products which have either forward or backward linkage should be developed by keeping tie up with manufacturers of industrial machineries and automobiles. Entrepreneurs can think of production of components for automobiles and other equipments which do not involve high technology.
Findings

The researcher conducted a sample study of 370 light engineering units in the micro and small scale sector in the four districts of North Malabar for the purpose of analyzing the economics of light engineering units to know the future growth and to open up the problems and suggestions for improvement. The findings and observations arrived at by the researcher are summarized below.

➢ The rate of growth in light engineering units indicates that majority of the units were started after 1994. Out of the sample consisting of 370 units, 51.1 percentage were started after 1994. In automobile repairing and servicing, 46.5 percentage; in steel furniture, 56.3 percentage; and out of the units manufacturing machineries and engineering products, 54.5 percentage were started after 1994. Out of the engine work units, 50.0 percentage were started after 1994 where as in structural fabrication, 43.5 percentage were started between 1981 -1994 and 40.3 percentage after 1994.

➢ Sample units include 85.67 percentage proprietorships and 14.32 percentage partnership firms. Almost the same pattern prevails in the four districts under study. In Kannur district, 83.93 percentage; in Kasargod district, 88.24 percentage; in Kozhikode district, 83.57 percentage; and in Waynad district, 92 percentage are carried on by single owners.

➢ The ownership pattern of sample units according to nature of operation also reveals that proprietorships are more than partnerships. In automobile repairing and servicing 88.6 percentage; in structural fabrication, 87.10 percentage; in steel furniture, 84.37 percentage are proprietorships. Out of the engine work units surveyed, 80.43
percentage are carried on by single owners and it is 77.27 percentage for machines and engineering products.

- Majority of the sample units in Kannur (44.64) and Kasargod (30.88) districts, are run by blacksmiths. But in Kozhikode and Waynad districts, thiyya caste dominated the blacksmiths by having a share of 36.43 percentage and 26 percentage respectively in the ownership of light engineering units.

- 38.6 percentage of the automobile repairing and servicing units are run by blacksmiths and 31.58 percentage by thiyyas. Ownership of engine work units by blacksmiths come to 47.83 percentage followed by 36.96 percentage by thiyyas. Contribution of blacksmiths and thiyyas to structural fabrication units, is 38.71 percentage and 36.29 percentage respectively. Thiyya community started 36.36 percentage of the machines and engineering products and 28.12 percentage of the steel furniture units.

- The Study revealed that people from other castes developed their skill through training and entered the field dominated by the blacksmith caste. Thiyyas or Ezhavas made much improvement and are just behind blacksmiths. Considering the linkage of religion and caste with the nature of operation, the study reveals that involvement of blacksmiths are more in automobile repairing and servicing units, engine work units and structural fabrication units.

- All of the unit owners are literate. Majority of the owners are below Pre Degree 70.54 percentage; 11.08 percentage with ITI qualification, 10 percentage are Graduates and 8.38 percentage are Diploma holders.

- Out of the sample, 57.30 percentage of the owners started their enterprise after gaining practical experience from light engineering units. 6.22 percentage worked in heavy engineering units in other
states and 7.03 percentage of the units were started by persons after returning from Gulf countries who worked there as skilled worker. 4.05 percentage of the owners have the experience of managing other business units.

- Additions to the machinery are made by 74 percentage of the sample units. 71 percentage of the automobile repairing and servicing units, 61 percentage of the engine work units, 77 percentage of the machines & engineering products units, 70 percentage of the steel furniture units and 82 percentage of the structural fabrication units have made additions. It means that these units introduced better technologies as and when needed. To cope with the changing needs, additional machinery has been purchased to improve quality and productivity.

- The district wise details of the ownership pattern of land and buildings in the sample units shows that in Kasargod and Kozhikode district it is almost 50:50. Out of the sample 112 units surveyed in Kannur district, it is found that 52.7 percentage run in rented buildings and 47.3 percentage in own sheds. The number of enterprises working in own buildings is 33 percentage in Waynad. This may be due to the fact that the number of estates in Waynad is less compared to other districts of North Malabar.

- The ownership pattern of land and buildings based on nature of operation shows that in structural fabrication, and in units producing machines and engineering products, the ratio of rented building to owned building is almost 50:50. It is 51.8 percentage and 48.2 percentage respectively in automobile repairing and servicing. Of the engine work units, 54.3 percentage function in rented buildings whereas 45.7 percentage have their own buildings.
Majority of the automobile repairing and servicing units - 81.58 percentage and structural fabrication units 77.42 percentage; investment in plant and machinery is below 1 lakh. 31.82 percentage of the units making machines and engineering products, 58.70 percentage of the engine work units, and 68.75 percentage of the steel furniture units have investment in plant and machinery between rupees one lakh and 3 lakhs. In 22.73 percentage for the machines and engineering products, 9.37 percentage for steel furniture and 8.70 percentage for engine work units the investment in plant and machinery is between rupees 5 lakhs and 10 lakhs.

The average investment in machinery is highest for machines and engineering products (5.45 lakhs) followed by 3.59 lakhs for engine work, 3.56 lakhs for steel furniture, 0.86 lakh for Structural Fabrication and 0.83 lakh for automobile repairing and servicing.

The average amount of working capital required is highest for steel furniture (1.82 lakhs), followed by machines and engineering products (1.60 lakhs), 0.39 lakh for engine work, and 0.37 lakh for structural fabrication. Being a servicing unit, working capital required for automobile repairing and servicing is meager. It comes to 0.15 lakh only.

In steel furniture and machines and engineering units, 18 to 20 percentage of production is for stocking. Hundred percentage of the work of automobile repairing, engine work and structural fabrication, 81.82 percentage of machines and engineering units, 79.69 percentage of steel furniture units are done on job order.(work as servicing units)
Majority of the sample units - 63 percentage; had taken short term loans in the form of cash credits or overdrafts. Only 37 percentage obtained term loans.

Majority of the units have availed of loans for meeting working capital needs. Out of the automobile repairing and servicing units which have availed of loans, 65.71 percentage have availed of loans for meeting working capital needs. Out of the sample engine work units surveyed, 28 units have availed of loans. Majority of these units - 60.71 percentage have availed of loans for meeting working capital needs. With regard to the units producing machines and other engineering products surveyed by the researcher, 13 units have loans. Out of this, 61.54 percentage are using loans for meeting working capital needs. Of the steel furniture units analyzed, 42 units have loans of which 53.38 percentage are running with working capital loans. And in the case of structural fabrication units, only 42 units have availed themselves of loans. The data shows that 64.29 percentage have working capital loans.

Out of the sample 370 units, loans are availed of by 43.24 percentage. The remaining 56.76 percentage have not utilized the facility of loan from banks or financial institutions. Loan availed of by majority of the units 81.25 percentage are from banks. The share of KFC is meager with 8.11 percentage. The loan availed of by automobile repairing and servicing units, engine work, machines & engineering products, steel furniture units, structural fabrication units out of the sample units, constitute 27.19 percentage, 36.96 percentage, 54.55 percentage, 50 percentage and 30.64 percentage respectively.

District wise analysis of dependence on loan shows that Kozhikode district ranks first with 42.14 percentage, followed by Kasargod with 39.71 percentage and Kannur with 30.36 percentage. Units in Waynad
district is far behind in taking loans. Loans are availed of only by 22 percentage of the units.

- Average loan of steel furniture units is the highest with an amount of 3.16 lakhs shared by 42 units. Units producing machines and engineering products come next to it having an average loan of 2.92 lakhs taken by 13 units. Around 61 percentage of engine work units had taken loans reaching an average of 1.72 lakhs. The average loan by 35 automobile repairing and servicing units, amount to 1.53 lakhs. Structural fabrication units availed themselves of lower amount of loan by 42 units, the average of which is 1.37 lakhs. The reason being the choice of claiming advance from customers before starting the job work.

- Majority of the units are (81.25 percentage) are regular in repayment of loans. Out of the units which have availed themselves of loans, only (18.75 percentage) are irregular in the repayment of loan due to financial problems. Main defaulters are structural fabrication units (31.11 percentage) followed by engine work units (28.57 percentage) and automobile workshops (20 percentage). Only 2.38 percentage of the steel furniture units made default.

- In general, the district wise default in loan repayment remains in the range of 16 to 19 percentage except for Waynad district. In Waynad, the default rate is around 24 percentage.

- More than 97 percentage of the units get the raw materials supplied locally whether it is steel furniture/structural fabrication/engineering products.

- 58.17 percentage of the workers in automobile units are skilled workers and 41.83 percentage semi skilled/unskilled. Whereas it is 63.35 percentage and 36.65 percentage respectively in engine works. Machines & engineering products, steel furniture, and structural
fabrications employ skilled workers to the tune of 64.84 percentage, 53.49 percentage, and 51.60 percentage respectively. The percentage of unskilled workers is 35.16, 46.51 and 48.40 respectively.

- A total of 569 are employed in automobile units with an average of 5 persons in a unit. In engine work it is 191 and 4 persons respectively. Steel furniture units employ maximum number of persons per unit. Total number employed in the sample furniture units amount to 430 persons where the average employment per unit is 7. Structural fabrications units stand in the forefront in providing employment with a maximum of 595 persons. Employment generation capacity of machines and engineering products as well as engine works are same, with 4 persons per unit. Sample units taken for the study in total generates employment to 1876 persons with an average or 5 persons per unit.

- To employ one person in machine and engineering products, an investment of 1.7 lakhs is required. The investment required for employing one person in steel furniture unit is only 0.77 lakh. Engine work requires an investment of 0.99 lakh, to give employment to one person. For structural fabrication and automobile repairing and servicing units, lower investment, both in machinery and working capital is required and so the investment per employee comes to 0.25 lakh and 0.20 lakh respectively for these units.

- In nearly half of the units of automobile workshops, engine works and structural fabrication units, the number of employment has come down considerably over the last 6 years, while in steel furniture; the decrease is only 16 percentage. The number of light engineering units which are able to reap the benefit of the emerging opportunities is only 12.43 percentage. In all the different sectors of light engineering, in nearly 50 percentage of the units, there is no change in the number of workers,
though there is sufficient scope for increased production/service and proportionate increase in employment.

- Local employment is more in automobile repairing and servicing. 89 percentage of the workers are available locally and the rest 7 percentage comes from Karnataka and 4 percentage from other states. Engine work units accommodate 83 percentage local people, 4 percentage from Tamil Nadu 11 percentage from Karnataka and 2 percentage from other states. As regards machines & engineering products, 64 percentage are locally available, whereas of the balance, 18 percentage each are from Tamil Nadu and Karnataka.

- Employees in steel furniture units are available locally and from other states. 78 percentage of the workers are from Kerala state, while 10 percentage is from Tamil Nadu, 6 percentage from Karnataka and the balance 6 percentage from other states of India. In Structural Fabrication units 87 percentage of the workers are locally available, whereas 3 percentage is from Tamil Nadu, 7 percentage from Karnataka and 3 percentage from other states.

- All units pay bonus to the workers, usually once in a year. 81 percentage of the unit owners contribute towards the Welfare Fund of the workers. ESI contribution is made in 22 percentage of the units. PF and ESI coverage is given only in 5 percentage of the units. It is observed that, only those workers who have joined the enterprise at the beginning and who are continuing in the organization are coming under ESI and PF coverage.

- Administration of the units is done by the owners/partners themselves. Out of the 22 sample units, producing machines & engineering products, in 15 units one office staff and in 8 units one or two sales staff each are appointed. Out of the 64 sample steel furniture units, in
21 units one office staff and in 18 units one or two sales staff are appointed.

Details of cost for the year 2010 indicate that material cost for automobile servicing and repairing and engine work, is comparatively less. It is 18.13 percentage and 21.36 percentage respectively for these units. Proportion of material cost is the highest for steel furniture units followed by structural fabrication units. They are 77.23 and 74.52 respectively for these units. Coming to machines & engineering products, material constitute 53.84 percentage of total cost.

Labour charges for automobile servicing and repairing and engine work constitute 71.69 and 66.93 respectively. The percentage of labour cost to total cost for steel furniture and structural fabrication units is 15.10 and 14.75 respectively. For machines & engineering products labour constitute 38.13 percentage of the total cost. In aggregate, materials constitute 69.16 percentage, labour 23.99 and overheads 6.85 percentage of total cost.

Out of the sample, 210 units are manufacturing units and the remaining 160 service units. When 54.55 percentage of the production of the machines & engineering units is according to trend design, it is 37.5 percentage in steel furniture and 100 percentage in structural fabrications.

The average sales made by the units from 2000 to 2009 shows an upward trend, though it is little for engine work and auto repairing units. The average sales value is the highest for steel furniture followed by structural fabrication and engine work. In engine work and automobile repairing units, average sales value is less. For machines and engineering products, average sales value is moderate. Machines & engineering products have the highest compound annual growth rate (11.47 percentage) of sales for these years. CAGR of structural
fabrications is 10.51 percentage followed by engine work, 9.56 percentage. For the other units, CAGR is almost same with 9.17 percentage for steel furniture and 9.11 percentage for automobile repairing and servicing.

- The average rate of profit earned by the micro and small light engineering units in Kozhikode and Kannur districts, increased approximately from 25 percentage in the year 2000 to 34 percentage 2009. It increased from 26 percentage to 32 percentage in Waynad district and from 24 to 32 percentage in Kasargod district. Rate of profit showed an upward trend for all the years in all the districts.

- The average rate of profit earned by the structural fabrication and automobile repairing and servicing, increased approximately from 25 percentage in the year 2000 to 34 percentage in 2009. It increased from 25 percentage to 32 percentage in steel furniture, 27 to 33 percentage in machines and engineering products and from 24 to 32 percentage in engine work units.

- Presently, there is not much problem to find market for the products or services. For products like steel furniture and engineering products, there exists certain amount of competition from other states. For automobile repairing and servicing, there is no competition at all from outside the state and there is very little competition from within the state (6 percentage). For engine work, competition within the state as well as from other states is almost the same, (7 percentage and 9 percentage respectively) Competition for machines & engineering products is comparatively high with 23 percentage of the units facing competition from other states, while the competition from within the state is only 14 percentage. Like auto workshops, for steel furniture also, customers depend on the local units for their furniture.
requirements. This is not applicable for high income group customers who usually buy branded furniture. Thus competition from within and outside the state is comparatively less - 14 percentage and 11 percentage respectively. Structural fabrication units face meager competition, 4 percentage and 7 percentage respectively from outside the state and within the state.

- Out of the units surveyed only 14.6 percentage have brand name for their product and none of the units got their brand name registered under trade mark registry. Out of the sample units producing machines and engineering products, 54.55 percentage have name for their product. As far as steel furniture units are concerned, 65.63 percentage have brand name for their products.

- Labour availability is a crucial problem for almost all the enterprises. Problem of power failure and work interruption, though not common, is indicated by all type of units. 12.43 percentage of the total units expressed frequent power failure as one of their problems. 15 percentage of the automobile repairing and servicing units surveyed, expressed their inability to take up work related to the new generation vehicles due to the new technology used in them. It is found that, 2.4 percentage of the entrepreneurs who have shed/sheds in industrial estates, informed about the problem of not getting “Pattayam” (Title Deed) even if they had paid for it.

- When 67 percentage of the entrepreneurs/units faced one or other type of problems, only 33 percentage were free from problems while setting up their units. Around 60 percentage experienced difficulty in getting power connection, quality and load of power while setting up the units, nearly 65 percentage experienced difficulty in getting the local body license without delay. And about 50 percentage of the units opined that they experienced a lot of difficulty in convincing the bank about the
success of the project and getting the required loan sanctioned at the
time of setting up the unit.

**Observations**

1. Light engineering entrepreneurs have been able to earn profits which raised their standard of living and they have moved up in the social hierarchy. (They are able to provide good education to their children, own good houses and vehicles).

2. In Kerala, there is no demarcation of industrial, commercial, residential and agricultural land. Hence, all area is treated as residential area and therefore, consent has to be obtained from nearby residents for starting an industrial unit. So, most of the entrepreneurs experienced problems in getting license from local bodies. This is really a problem in a thickly populated State like Kerala.

3. Many entrepreneurs are not aware of the measures available for development of skill in the employees, provision for technological upgradation, marketing assistance, and delayed payments to MSMEs or cluster development of such enterprises with a view to enhancing competitiveness of MSMEs.

4. Majority of the products of light engineering units are job works and, so, for quality products, customers are willing to pay. Cost of raw material or labour is not worrying the entrepreneurs. A few years back, there was severe competition in the field, and customers bargained for the rate.

5. Lack of sincerity and commitment for work and poor work culture among workers is a major issue. More often they work on contract for different entrepreneurs and change jobs frequently. So, more labour absenteeism is there and entrepreneurs are not able to execute their orders promptly.
6. Enterprises run by the owner/partners/family members gain much as they are able to adjust with the problem of labour shortage. Entrepreneurs who are not workers are not in a position to run the unit now, and have given the unit on lease to workers.

7. Training facilities in the automobile workshops are poor. It takes more time and physical strain to become a skilled worker. So, the new generation is reluctant to work in this field. They go for unskilled or semi skilled works like painting, construction work, road work etc which give them better wages than working with micro small and medium enterprises.

8. New generation vehicles have designated repair and service centres and vehicle owners take vehicles to such designated repair shops. But this is not a threat to the ordinary workshops because after the guarantee period of the vehicles, owners usually move on to the traditional shops if facilities are available as the charges are very high in the designated work centres/shops.

9. Entrepreneurs who have units in Kerala as well as in Tamil Nadu or entrepreneurs who had work experience from Tamil Nadu says that the rate of tax on sales is higher in Kerala. (12.5 instead of 4%) The Government of neighbouring states also provides many facilities to them and entrepreneurs are served better by the industries department in other states, where as ‘Inspector Raj’ still exists in Kerala.

10. No unwanted trade unionism and strike threat exists now. Labourers dictate the terms and if a worker is not satisfied, he will quit and can easily get a better job.

11. No problem of seeking credit by customers. Customers are ready to give down payment or even advance and hence entrepreneurs needn’t depend much on banks for working capital.
12. Unlicensed workers without premises, who needn’t pay establishment and electricity charges, are doing job work for customers at their premises. It is a threat to the organized units, who work by incurring establishment charges and electricity charges at a higher rate.

13. Though a consortium of light engineering units was formed in 2006 in Kannur district, it is not functioning at the expected level. Steps have been taken to form Consortiums in Kozhikode and Kasargod Districts.

14. Fabrication units and automobile service stations have sufficient work as the customers are ready to pay whatever is the rate for the service.

15. Some of the old entrepreneurs opined that earlier they received good advice and support from District Industries Centers, especially from Industries Extension Officers. They also remarked that the standard of service from Industries Department deteriorated over the years. Most of the field officers are not able to give guidance to sort out a problem, know nothing about various functions of running an industry and often work as ‘inspectors’ rather than as ‘development officers’. It is learned that most of the officers have not been given any training on the management of small industries and business.

16. It is observed that some units started five/six years back, stopped production as they were not cost conscious. To catch the market, they reduced the rates and compromised on quality and, so, naturally had to withdraw from the field.

17. With the introduction of “Three Tier System of Panchayath” involving Peoples’ Planning, several Panchayaths at Grama, Block and District level acquired land for industrial infrastructure development but only some of the Panchayaths had built industrial sheds on such lands. This is inadequate and lot more needs to be done.

18. Some developed countries offer service of their experts for the development of MSEs in developing countries. Under the scheme,
technological, production and marketing supports are given. Some agencies extend limited financial support also. Assistance under Senior Expertens Service scheme (SES, Germany) has been utilized by the Light Engineering Consortium, Kannur for setting up and running the Consortium office. It is learned that Irinave Handloom Consortium under Handloom Cluster Kannur also received assistance under the scheme in technological area. Under the Netherland Management Cooperation Programme (NMCP), now Centre for Promotion of Imports from Developing countries, scheme thrust is given for marketing and technological support. They assist small units to find market for their products in Netherlands. Handloom Cluster had utilized this support also. In general, most of the units are not aware of such beneficial schemes operated by different agencies overseas.

Suggestions

This study is made to research and analyse the problems faced by the micro and small light engineering units in the four districts of North Malabar, which is an important industry in terms of employment to rural poor and to suggest ways and means to overcome such problems so that they can grow to their fullest potential. On surveying, the researcher could come across a lot of problems such as labour shortage; insufficient funds, difficulty in getting funds; lack of awareness about the facilities available, higher rate of interest on loans etc. The following suggestions are made which will help either in overcoming or easing the problems. While sharing the experience by entrepreneurs in the field, some opinions made by them are put in the form of suggestions.

1. The schemes introduced under priority sector lending, such as sanctioning of loans to micro enterprises without any collateral security up to a maximum of 5 lakhs, providing guarantee for loans to MSMEs
up to 25 lakhs using Credit Guarantee Fund etc should be strictly implemented by banks.

2. Upto 5 lakhs, Project Report need not be insisted, but such details needed may be collected in the application form itself to evaluate the potential of the project.

3. Really speaking, MSMEs lending is the best option for banks, than giving huge amounts to big corporates at a negotiated rate which often is close to the bank rate. The rate of interest to MSEs is higher than corporate loans. There are lots of incidences of big companies, existing as well as newly-formed, availing huge loans at lower interest, and suddenly disappearing. Such loans are getting sticky and without much scope for recovery. While the risk factor is less in the case of MSMEs lending which usually consist of smaller amount.

4. Banks may be encouraged or at least it may be made mandatory for banks to lend certain percentage of total credit to MSMEs.

5. For the working capital loans, banks can follow Pandian Committee principle (ie 20% of annual turnover) which is an easy way of computing working capital requirements of MSEs.

6. Clusters should be developed wherever clusters are not there and where they exist, their activities should be improved to get raw materials including spare parts and paints and for common facilities required for light engineering industries.

7. Local bodies should acquire and allot plots for industrial activities where ever there is shortage of available land; and uninterrupted, quality power supply must be ensured by the authorities concerned.

8. Getting license from local bodies is a problem. Local bodies may be insisted to give a maximum number of Dangerous and Offensive trade License (D&O licenses) which is an indicator of development and increased income of local body. Local body which gives maximum
number of D and O license may be given award/prizes to encourage them. The District collector may be authorized to get periodical report on this.

9. Single window and Green channel committee is to be made more effective. Industries Department should, as a policy, approve proposals through “single window clearance” for starting new micro enterprises, to avoid delay in starting the units which will avoid overrun in cost and time which is a major problem for Micro and Small Enterprises.

10. There must sufficient motivation from the side of the Industries Department to attract entrepreneurs.

11. ESI or any form of insurance, PF and Gratuity should be made compulsory for workers and the formalities for its operation should be made easy so that workers can continue these schemes even if they change the work place. Presently most of the enterprises are evading from this rule on the ground that labourers are temporary.

12. On the job training to the students of ITI/VHSE /NTTF/PolyTechnic etc. should be made compulsory which will have dual benefit, - skill of the students will be improved and the problem of labour shortage in the sector can be solved.

13. Small repair shop owners must upgrade their facility and also shall get good training in repairing all type of vehicles to match with the designated repair and service centers.

14. Modern techniques should be adopted which will reduce the physical strain. This can be done through consortia by pooling the resources.

15. Kerala is a state of educated people. So, people crave for blue collar/white collar jobs. If workers are given such working premises and system, we can retain those who are leaving for abroad in search of job.
16. Instead of giving subsidy to the units it will be more effective if finance is made available at lower rates. The reason is that some entrepreneurs start the organisation and avail the subsidy and after that they either sell or close down the unit. What is to be done is that the govt. should provide or improve necessary infrastructure, and motivation to boost the growth of industries.

17. Government/Industries department may take initiative to tie up with all automobile manufacturing companies (there are more than half a dozen in Tamil Nadu itself) to provide training to micro and small enterprise employees on modern automobile servicing and repairs which will benefit the company as well as entrepreneurs.

18. Industries department may take steps to promote at least one automobile complex in a district which will be a one stop destination for repairing any kind of automobile. It will consist of 10 or more repair shops, paint shops, upholstery, body repair shops, spare parts shop, welding shop, engine reboring unit and a service unit. Any two wheeler, three wheeler, four wheeler can be repaired /serviced in one complex, where each unit is owned by each entrepreneur. This will be a novel idea.

19. The State Govt., while inviting investment, should try to make proper tie up with the investors for ensuring sufficient forward and backward linkage to local industries in general and light engineering industries in particular.

20. The Government should take necessary steps to popularize ED Club activities in all educational institutions from Higher Secondary Level. Though ED Clubs have been started in selected schools and colleges, presently they are almost defunct.
Scope for further study

There is scope for the researchers to conduct studies in the area related to light engineering units. Some of the area is:

1. Light engineering units started before and after liberalization can be compared for knowing the pattern of growth.
2. Entrepreneurial qualities which lead to the development of industries in the neighbouring states can be studied.
3. Branding the light engineering products as a tool for better market and value addition.

Limitations of the study

Generally, the response had been encouraging as most of the unit owner’s were sincere in responding to the various queries. Even then, there were some limitations for the study. Most of the units, do not keep any real accounts or registers, but keeps only such records to satisfy the concerned authorities – very often unrealistic accounts and details. They often furnish orally different accounts and details to different authorities. This is mainly due to the reason that they are afraid of getting notice to pay sales tax, income tax or penalties for not adhering to rules of the country/ state. Because of the above reason, hundred percent correct details and figures with regard to the running of the unit is not given to the researcher. Hence there are chances for small errors. But based on the information on the industry norms, market conditions, market price of raw material and finished goods, information from neighbouring units, controlling departments like DIC, labour etc. an almost real picture could be collected for the purpose of the study.