A REPORT ON THE STUDY OF ELECTRICAL GOODS INDUSTRY AT ALIGARH

THESIS SUBMITTED TO ALIGARH MUSLIM UNIVERSITY IN LIEU OF OPTIONAL PAPER, FOR THE DEGREE OF MASTER OF ARTS 1968

UNDER THE SUPERVISION OF

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THE ELECTRICAL GOODS INDUSTRY AT ALIGARH

Thesis

for

The Degree of Master of Arts in
ECONOMICS

Aligarh Muslim University,
Aligarh

for

1967-68

Under the guidance of
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1967-68
ACKNOWLEDGEMENT

The present work is an outcome of two aspirations, firstly, the great inclination of doing some field work apart from bookish studies and secondly, hope of reward for hard work. These aspirations provided courage to face various difficulties that appeared in course of preparation of the present work; really significant from academic point of view.

In the preparation of the study, I was helped by eminent scholars as well. My thanks goes to Dr. Mohammad Nejatullah Siddiqi, my supervisor, who was willing to help me at any moment, with his valuable suggestions and made it possible to complete this thesis in a short time.

I will be failing in my duty if I do not thank Professor Mohd. Shabbir Khan, Professor and Head of the Department of Economics, Aligarh Muslim University, Aligarh a man of most outstanding merits and repute, who has contributed most in my understanding of Economics; he very kindly allowed me to take up the present work.
Proprietors of Aligarh Electrical Goods Industry also deserve thanks as they were always willing to co-operate in my work by offering whatever information solicited and devoting their precious time in discussing with me the many issues.

Thanks are also due to Shri Gupta, Inspector, District Industries Office who provided me very useful data and gave me the official versions of the various problems of the industry.

I also thank to Mr. Latafat Ullah Khan, who helped me in correspondence with Directorate of Industries and typing out this work.
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CHAPTER - I

INTRODUCTION

A - Choice of the Subject:

The choice of Electrical Goods Industry as a subject for detailed investigation and analysis hardly needs any comments. Every country these days, is mobilising its efforts for industrial development, as industrialisation today is considered to be a sine qua non of material progress. Dr. T.R. Sharma and S.D. Singh remarks in their book 'Indian Industries 1966' - 'Industry is the keynote of economic development of a country. No country can progress and prosper without its Industrial Development'. Every society or country, for the progress and development of its industries. With the betterment of industries one can enjoy products of standard quality and at cheap rates. The continuous process of use of machines result in knowledge of new things which come to make our life more enjoyable and happy. That is why it is said that an ordinary labourer nowadays enjoys much more comforts than were available to kings in olden times. A Rickshaw-puller can protect himself and can get refreshed for further work from the bitterness of hotness in hot summer days by spending few minutes under a fan in a hotel or elsewhere.

Electricity is very useful in our daily life. It has become a part of our existence and it is also making impossible things possible. By means of electricity we light our houses, rooms, streets workshops and other buildings within the twinkling of an eye. This light is quite
pure and free from bad smells, smoke and gas. It adds to the decoration of buildings etc. It serves not only as a means of providing light but also increases beauty of the place. We can get light at cheap money. Electricity does many of our small works like an obedient servant. It cooks our food, boils milk, and water. Thus it saves our time, energy and money and makes us more efficient. It helps in fighting weather. We can be warm in winter and may be cool in summer with the use of electricity.

Electrification Plans provide a wide scope for Electrical goods industries in the private sector. Heavy electricals are in public sector while the private sector is given the responsibility of producing this type of products. There is hardly any sector that cannot benefit from the use of electricity. The simplicity and the high degree of efficiency with which electricity can be used as a source of power, heat and light have contributed to the rapid growth in its utilisation. Experience all over the world shows clearly that the relative share of electricity in meeting the total energy needs has been steadily rising. This is corroborated by Indian experience as well. National Council of Applied Economic Research showed in Demand for Energy In India 1960-75 that in 1950, electricity accounted for 15.6 per cent of the total commercial energy effectively consumed in the country, five years later this share rose to 18.0 and it is estimated that by 1975, it will reach 25 per cent. Nearby a number of power generating plants which are located Qasimour, Samra, Palra, creates opportunity of wide use of power by industrial units as well as for rural electrifications.
It is matter of great satisfaction that Aliyarh, home of locks and scissors, is also now especialising in electric goods. It goes to meet the demands of big bungalow-vallas and hut owners. Local producer not only meet the local demands but also send goods to other markets. The local demand is itself very heavy - on the one hand the number of electrified villages is increasing and on the other hand due to the new comers to Aliyarh Muslim University and due to construction of various other big buildings the need for electric goods is increasing day by day. Every new entrant to University buys a table lamp as soon as he is allotted a room in hostel.

With the establishment of industry in Aligarh, the local customers are able to get goods at cheap rates and it also saves foreign exchange but there are possibilities that this industry may earn a good amount of foreign exchange in near future. The goods are being sent to Ceylon, Malaysia and Indonesia.

B - Nature and Scope of Enquiry:

The present enquiry is primarily connected with the discovery of certain facts relating to the Electrical Goods Industry. Apart from the discovery of facts relating to this industry, the present survey seeks to analyse the broad problems of Electrical Industry brought within the scope of this investigation these problem relate to raw materials and labour. This enquiry, is, thus, not only descriptive but also analytical.
The area undertaken is Aligarh city, the capacity of the industry to meet rising demand, the relative cost and price and the resultant margin of profits available in each of these lines of production, the changes in pattern of consumption and the incidence of these changes on the structure of costs and prices, the employment opportunities that they provide and problem of transport, organisation and labour that they give to all these pane to be studied and analysed for purposes of economic appraisal.

C - Statement of Problem:

The present thesis aims at an analytical and statistical study to find out whether the development of Aligarh Electrical Goods Industry is commensurate with industrial potentialities, to investigate into the possibilities of further development. Progress has been assessed particularly in the sphere of production and quality control, schemes of the Government have been critically examined and causes of the slow progress have been located. Incidentally connected problems of marketing, finance, supply of raw materials, management, production and labour etc., have been stated and suggestions have been offered at appropriate places. An attempt has been made to discover the form of organisation which is most suited to the development of this industry and thus, assign the exact role which private industrialists, the co-operatives and the government can play in the development of this industry in future.
Method and Approach:

The method adopted is that of personal investigation. A realistic approach has been made to entire subject under study. Organised and big factories have been fully discussed. In case of cottage industries, random sampling is adopted.

Plan of Chapters:

We start with the significance of study and there is given the growth of industry. In second chapter is given a short history of this industry and progress made by it under Five Year Plans has been reviewed. Then light has been thrown on various electrical products produced in Aligarh. In next chapter we have discussed the existing labour condition, the total labour force employed, total wages paid by industry, labour efficiency etc. The fourth chapter relates to capital structure of electrical goods industry i.e. the total capital employed and its sources of finance. The fifth chapter is entitled as organisation and management. This deals with the classification of industry from legal point of view, that is from mode of ownership and from viewpoint of scale of operation. This chapter gives the real picture of industry as it is. In chapter six, the methods of and total sales has been analysed. In the next chapter, an account has been given of state activities.
Sources of Information and Difficulties Encountered:

Unorganised and scattered character of this industry made the task of collection of suitable data extremely difficult. But it is not quite as hazardous as is generally supposed. The lack of formal account books in small establishments is not necessarily a disadvantage. Questioned boldly for data alone, the small entrepreneur reacts with suspicion and dubious statistics, but once his interest is aroused, he gives his time and data freely. Moreover, the simple looking personality of the investigator removed all the doubts of entrepreneurs about the use of information.

In case of enquiry, however, several published and unpublished notes come up for our discussion. In this connection, mention can be made to Aligarh District Survey Reports 1956, 1960, 1964. The Report of Unit to Unit Survey conducted by Small Scale Service Institute Kanpur, proved to be of great help. Various statistics were also taken from District Industries Office, Information Office, Office of Assistant Director of Small Scale Industries and from Sales Tax Office. I am especially thankful to inspector incharge at District Industries office who not only provided me official information from their records but helped me in checking data collected by personal investigation and came hand of co-operation.
CHAPTER II

GROWTH OF THE INDUSTRY

A - Origin of Industry:

Upto the end of the 19th century Industry and Transport remained to a very large extent dependent directly on coal for the generation of heat and power. It was during the closing years of the last century when Hydro-electricity was investigated in India for the first time. But upto the end of First World War all the accessories and equipments for the electric fitting and generation were imported and not a single factory was established for the production of electrical goods before the First World War in our country. After the War few industrialists came forward to establish the factories for the production of electrical accessories to meet out the increasing demand for these products due to the expansion of electricity. But as a matter of fact the electrical goods industry in India was mainly confined to the production of few electrical goods upto the outbreakes of Second World War. As the figures show that 'In 1938-39 the value of the imports of electrical goods came to Rs.695086 - India's Basic Industries by P.T. Thomas, page 189.

The war brought about a diminution in imports and a rise in demand. The heavy war demand necessitated the production of electrical goods in bulk quantity within a short space of time. Therefore electrical goods industry in India came into existence in its fullest capacity within the period of Second World War.
Within this period a large number of new factories were established in India for the production of each and every type of electrical accessories to some extent.

The main reasons responsible for the slow progress of this industry in India up to the Second World War were as follows:

1. Most of the machinery required for electrical goods industry was imported from foreign countries.

2. Raw material required for the production of electrical accessories were mostly imported from foreign countries through import licenses to obtain which was a very tedious job during the British regime and hence very few people could be attracted towards this industry.

3. Indian people by nature being simple in their living did not pay any attention to the luxuries and amenities provided by electricity and were mostly apathetic towards the adoption of the use of electricity and this also provided a great handicap in the advancement of electrical goods industry side by side the risks and damages involved in the use of electric current in domestic use also detracted people away from it.

4. The most responsible cause for its progress is the late introduction of electricity in India and afterwards its slow experience.
As this industry started very late in India in comparison to other basic industries of the country. Aligarh Electric Goods Industry also started very late as against the other industries of Aligarh say lock industry, brass industry etc.

In the absence of any relevant information, it is difficult to trace out the definite period of the origin of Electrical Goods Industry at Aligarh. But however, it has been found out that the year 1927 may be taken as the starting point of Aligarh electrical Goods Industry when Sri Ramji Lal came out as the founder of this industry at Aligarh who established the National Electric Co., Sarai Kutab for the production of electrical goods. The production of this company was only confined to ordinary brackets and very rough type table lamps.

The next attempt in this direction was made by Shri Girdhari Lal Saxena in 1930. Up to the outbreak of World War Second this industry did not make any progress in its production and very few firms or workshops were established. But during the war period several new workshops and factories of electrical goods were established, to fulfil the heavy war demand and they succeeded in holding the market.

Leaving at present, the discussion of stage development of the industry let us proceed further to analyse the main causes responsible for the location of electrical goods industry at Aligarh.
B - Causes of Location:

We can summarise the causes of localisation under the following heads for the sake of adequate and smooth description along with the details:

i) Availability of Cheap Labour:

Aligarh district is one of the most thickly populated districts of U.P as it is most fertile and cultivative district being situated in Do-Aba of Ganga and Jamuna rivers. This all makes the availability of cheap and abundant labour during non-harvest periods. Electrical goods industry is more or less a cottage and small scale industry in which labour factor plays an initial role due to the pre-dominance of manual and hand work. A particular sector of labouring population has acquired a respectable degree of specialisation in electrical goods manufacture and they pass and rather hand over this art from one generation to another. Most of the workers in their residential houses with the help of their family members and as these members grown up acquire proficiency within a short duration. This all results in the availability of cheap adequate and trained efficient labourers to this industry.

ii) Complementary Industries:

The simultaneous running of pre-existing Brass Industry, Lock Industry, Brass Building Fittings Industry have also helped in the development and location of this industry at Aligarh. It has been
an asset to the electrical goods industry of Aligarh that the trained workers of these contemporary industries have been available to the electrical goods industry. The expert workers of the moulding, filling and fittings and various other mechanical processes etc., have been readily available here for this very industry. The dealers of raw materials, such as scrap brass, cost Iron Moulding materials and scrap Alluminium etc., are also present at Aligarh since long. That is why that its early start was easy to perform.

iii) Availability of Raw Materials:

One of the chief causes of localisation of industry in Aligarh is the availability of raw materials. The existence of the lock, Brass, and Building fitting industries in Aligarh has rendered a great half for the availability of raw materials. All the raw materials e.g. iron sheet, cast iron scrap brass moulding clay, chemicals etc., are available from the local dealers of Aligarh who have been stocking them since long to fulfil the demand of said industries.

Delhi, capital of India, is nearest to Aligarh. Delhi, along with the capital is an industrial city and where most of the raw materials required for the electrical goods are available of ready, so that most of the materials i.e., chemicals, polishing materials, wires and other raw materials and some tools are purchased which are required for this industry by the electrical dealers from here.
iv) **Transport Facilities:**

Aligarh is situated on the main railway line between Delhi and Calcutta. At the same time Aligarh Railway Station is as junction for connecting the Districts of Moradabad, Bareilly, Bulandshahr, Delhi and Agra. There are several metalled and unmetalled roads along with the Grant Trunk Road which facilitates convenient and quick transport vehicles etc. This is why that we get here so many private Bus Syndicates, Transport Companies along with the Government Roadways.

v) **Availability of Electric Power:**

In the beginning of the electrical goods industry of Aligarh was at a small scale, hand tools and hand work were more in vogue, but with the development of the industry the need for the electrical power became more and more genuine and vigorous. The development of Hydro-electricity in Aligarh is also a boom to this industry.

vi) **Some other Factors:**

Besides the above mentioned facts some other factors have been responsible for the localisation of this industry at Aligarh. The easy availability of finance on easy terms from the Private Bankers and money lenders on personal securities along with commercial Banks has been responsible for the localisation of this industry at Aligarh. Though the commercial Banks advance loans only to the representative concerns of electrical goods yet their help in this direction is also noteworthy for Aligarh electrical goods industry.
After the discussion of the above mentioned causes responsible for the localisation of this industry at Aligarh, we come forward to our next point say, stage development of the electrical goods industry.

C - Stages of Development:

The stage development of Aligarh Electrical Goods Industry may be divided into the following heads for the sake of elaborate details and adequate description of events in every period.

a) Pre-independence period
b) Post independence period.
c) First Five Year Plan
d) Second Five Year Plan
e) Third Five Year Plan, present position and future prospects.

A) Pre-Independence Period: The preliminary work started in 1927, when the National Electric Company was started by Shri Ramji Lal. But it manufactured goods by means of time worn methods and tools and so could not survive for a longer time.

The real beginning of industry at Aligarh takes place with the foundation of a firm which is now known as Imperial Electric Trading Company. The proprietor of this firm, Mr. Girdhari Lal, once went to Delhi and there he saw in the hotel some electrical items. He watched all the material closely and thought in his mind of some ways to produce those things in the country. At that time articles of electric were imported from Western Countries. Only the production
of building material has started at Ali'arh. Mr. Girdhari Lal took some samples (models) and became busy to get the electric goods produced within country.

After this up to 1940, Bi-Bath Electric Industry, Commercial Electric Company, Gupta Electric Industry etc., were established in succession. In 1940, one more firm was founded by Mr. J.S. Saxena.

During this period the position of manufacture was not economically sound because British Government did not like them prospering. They were not allowed licenses to buy raw materials from foreign and electric connection were not procurable. In such a situation, foreign electric goods were showing their superiority.

The Second World War gave a sort of impetus to this industry as there was huge demand of electrical goods in the market during War period. The War resulted in so many risks and difficulties in transport, the foreign countries, being predominantly pre occupied in manufacturing the war materials, foreign goods could not come to India in bulk quantity. These factors arose a wide scope for Ali'arh made electrical goods in the market. The result was that many firms for the production of electrical goods were established by Industrialists of Aligarh during War time. The names of Misra Electricals Co., Kashyap Electric Co., Industrial Electric Corporation The Best Company, The Laboratory Electrical etc., are noteworthy in this direction.
This trend of market not only gave impetus to the establishment of new firms but also gave opportunity for the expansion of pre-existing firms of electrical goods. And in 1941 the Imperial Electric Trading Co., was granted electric current of 5 H.P. and commercial Electric Co. and Associated Electric and Metal Industry were granted electricity of 3 H.P. With the grant of electricity power to these electrical goods manufacturing concerns, they began to produce Table lamps and Fancy Brackets, and clusters and besides ordinary Brackets. New designs also came into vogue. The result was obviously the profit to the manufacturers which was rather multiplied by the consumption of electrical goods by the government. This affected the electrical goods industry to a great deal. The growing fame of the industry made the public to extend loans to the Electrical goods manufacturers.

But this progress stage of Industry could not persist for a longer time. Though the demand for Aligarh made electrical goods was not less yet due to the general upheaval in the country and a unstable political position prevailing at that time and mutual distrust among the chief communities i.e. Muslims and Hindus and the effects of transitional period just prior to independence in 1947 and subsequent dis-orders and communal riots the production of Aligarh Electrical Goods Industry could not be increased.

b) Post Independence Period:

The national government after coming to power aimed at rapid industrialisation. It provided basic raw materials and placed a bar
on foreign goods to enter in local markets. This proved a boon to various industries of country and electrical goods industry at Aligarh also enjoyed additional facilities. It was a golden opportunity for its expansion. This industry began to get raw materials and facilities of electricity and coal. The new electric connections were granted so that machinery be put to use and the resultant produced goods may be beautiful and better. Along with this the prohibition on foreign goods due to the foreign exchange difficulties, the markets were now opened for the local made goods. Electrical goods producers expended their respective firms and they began to chalk out new plans.

But again the industry got a blow. It was of such a severe notice that many small units have to be closed down and big firms were also upset by the communal riots which occurred in Delhi, Kanpur, Agra. Muslim artisans began to migrate to Pakistan owing to the communal riots and there became a dirth of artisans in the industry as most of the skilled artisans belong to Muslim community in that period. There was all-round uncertainty. People did not like to port away with their money. It also caused financial crisis.

Slowly as the situation began to return to normal the industry also moved forward. Certain new inventions were made for the production of electrical goods. It was during this period that a fresh experiment was made in electrical line by a newly started firm named Sarswat Industrial Electric Corporation. Spreey painting though not quite unknown to Aligarh, as being utilised to a very limited extend by other industrialists of Aligarh, e.g.
camera making concern, and Messrs Ganga Saran & Sons private Ltd., who dealt in paper and stationary was completely a new thing for electrical industry. The water tight fittings and bath room fittings were previously very roughly hand painted with varnish, colours and gave a rough looking. This firm started painting these articles with Wico paints by spray Machines and the articles were given a very fine look. These paints being water proof and sun-proof were of a lasting nature. These spray Wico painted articles were very much liked in the market. For a considerable time this remained a secret with Sarswat Industrial Corporation. After sometime the import of Wico paints was prohibited by the Indian government so other alternatives were sought for and this resulted in the use of stoving enamel paints manufactured by a British Firm named British Paints (India) Ltd.

c) Under First Five Year Plan:

In First Plan three factors caused this industry to develop and expand. The government of India, in her First Plan engaged herself in big construction works i.e. construction of big office buildings, educational institutes and various other projects and dams. Every construction has to be electrified. So this factor resulted in heavy demand for electrical accessories. There was demand from Government itself and from people who were getting accustomed of using electric current for domestic purposes.

Not only the expectation were large but government also adopted a liberal attitude. Industrialists were granted power
connections and licenses etc. and grants by loans. Imperial electric trading Co. was granted an expansion of electric power from 5 H.P. to 15 H.P. and it came under the purview of Industries Development and Regulations Act 1951. They were now able to obtain licenses from the Central Government for the import of raw materials. During this time there were new entrants into this industry, leaving lock industry where their products were being discarded on account of introduction of padlocks, and lever brass padlock. Many of them now began to supply electrical goods and manufacture of electrical goods on small scale cropped up.

d) In Second Five Year Plan:

In this period our planners took more interest in the development of industries of the country. Due to this policy electrical manufactures of Ali-arth were also benefited to a great extent. Both the central and State governments provided loan to manufacturers of electrical goods. Their names are given in the coming table.

1. The Imperial Electrical Trading Co. Rs.25,000
2. The Misra Electric Co. 7,500
3. Shri Piare Lal Sharma 5,000
4. M/s Associated Electric and Metal Industries. 15,000

The production of some new electrical items also started in this period. Ceiling fittings combined shade and armature made out of Aluminium, began to be manufactured with the help of lathe machines. Shri Surendra Kumar started manufacture of cable wire under the name
and style of Indian Wire Product (P) Ltd., Premier Nagar, Aligarh in collaboration with Mr. Deena Nath Gupta, Asia Cable Co., was set up by Mr. Jaipal Swarup for the manufacture of wire.

Some steps were taken for the production of brass holder. Finally in the year 1960, the owner of Imperial Electric Trading Co. started the manufacture of brass holders under the name and style of Kumar Industries. Government provided a loan worth Rs. 90,000.

e) During Third Plan Period:

In the beginning of this period, industry continued to register progress. Many new units came into existence in this period. At least 2 new units were established. Government continued to provide its sympathy by providing loans and sanction of raw materials quotas. Messrs United Electricals were sanctioned a loan of Rs. 30,000 to expand their workshop and increase their production. Messrs Singhal Engineering Co., started the manufacture of electric motors and is making good progress in this direction. Messrs United Traders also achieved considerable success in the production of conduit.

f) Present Position and Future Prospects:

At present there are five firms which are registered under Factories Act of 1948. During the last two or three years, more than
10 firms have come in existence. Line Material Co. has started functioning with capital investment of the order of 1.25 lakhs. A large number of new products are being produced. Line Material Co., is producing circuit boxes, High and Low tension boxes. Imperial Electric Co., has started producing street light fittings.

Several new firms are also seen operating. The secret of their survival together with big well-established firms, is the fact that they produce each and every single part of every article that they produce instead of getting it prepared from other artisan. It reduces cost. By selling at lower prices and also caring about quality of products they new firm have captured markets from older firm, the name of Sirmal Electrical Co., is worth-mentioning in this connection.

The future prospects of this industry are also very bright. The demand for its products is increasing not within the country but even from outside countries. Until now Imperial Electric Co., was exporting the Nepal, now others have also secured some orders from Nepal.

Most of the manufactures have plans of expansion of their existing plants and three or four of them have been allotted sites in Industrial Estate where they will produce in larger quantity and also new products.
New items have been added in the list of electrical goods being produced at Aligarh, of this the production of street light fittings is of importance. Its production was taken up by Imperial Electric Co. The varieties of each product are also increasing since 1962. Now we get a number of varieties of a particular item.

Dislocation were caused by two Wars, firstly the war with China in 1962 and with Pakistan in 1965, caused uncertainties in the market. Orders from outside market centres were stopped. Railways did not accept to carry electrical goods and private truck owners hesitated in taking their trucks to long places due to fear of Government's imposition of emergency duty on them. All this resulted in slowing down the pace of growth which this industry was gaining.

One more unfortunate thing happened in 1965-66, The Associated Electric and Met-1 Co., which was in existence since 1940's stopped production. Its main raw material was metal product and it was banned by Government and there were some financial crisis also. So it has to removed from the picture. Now its owner Mr. Jaipal Swarup is getting famous as an advocate. With the expectation of bumper crop the over all prospects are brightening. Rural electrification is on increase and bumper crop will further add to it by increasing purchasing power of villagers.
PRODUCTS

Here we come to trace the information about the electrical products that are produced at Alliparh. We will discuss important products and their varieties, and important parts of some items. Products are numerous, we will take account of only important products (which are not produced in limited quantity).

The main items are given here under separate heads:

1. BRACKETS: Brackets may be classified into two classes, i.e., ordinary brackets and Fancy brackets. We will discuss both of them.

   a) Ordinary Brackets: The brackets are fixed in the walls of the rooms of every electrified house and buildings to be fitted with holders to hold the electric bulbs. This article occupies a very important place due to its great demand and heavy production. Brackets are of various sizes according to length and diameter. The diameter of these brackets are 1/2", 5/8" generally and 3/4" in particular. As regards length, the following are the sizes generally in vogue say 4", 6", 8", 9", 10", 12". These brackets are made out of brass sheet as well as iron sheet. Ordinary bracket is composed of two parts i.e., one is base and second is pipe.

   i) Bases: These are generally moulded out of brass and are smoothed and then polished.

   ii) Pipes: The pipes are made out of sheets of brass as well as iron. The sheets are cut into pieces according to the requirements and are welded. The welded pipes are passed on to the workers who bend them on suitable design, cut threads on both ends, and thereafter give a final touch of filing. As this item has got an increased market throughout India as well as outside the consumption of ordinary brackets in very high, firstly because it is very cheap and
secondly in all the government buildings it is the only ordinary brackets which is utilised for fitting

B - Fancy Bracket:

These are generally made out of square pipe. The round pipes are turned into square shape through a machine. The square shapes give it a beautiful look. Some other accessories are fitted with the pipe. There are certain fancy brackets which are made complete with the addition of round brass bases used with the ordinary bracket are again fitted with brass moulded and fitted bases in different designs say square, 

2 - Table Lamps:

The other product which we find associated with every firm is table lamps. They are variously designed and have different length and breadth. They are very important from the point of view of sales and get a sound ready market. They are demanded by students, officers and businessmen etc. Table lamps may be divided into two categories:

   i) Brass Table lamp stands.
   ii) Coloured Table Lamps.

   i) Brass Table Lamps: These are manufactured completely out of brass and involve high cost of production.
   ii) Coloured Table Lamps: These coloured table lamps are more demanded than other table lamps because their cost of production is less. They are very attractive and beautiful.
3 - Cluster or Jhars:

Sometime back, Jhars were contributed to decoration of bungalows of Nawabs and used to cause great display at the time of various functions. But their place is being taken by tube lights. Jhars may be classified into two categories:

I) Clusters with Brass Brackets
II) Clusters with Candle Light Brackets:

I - Clusters with Brass Brackets:

These clusters are manufactured with ordinary brass brackets which are generally used for the decoration purposes in marriages, exhibition fairs and feasts by the electrical contractors. The clusters with fancy brass brackets are used for the decoration of houses and buildings etc. These clusters are costly and generally are used by wealthy as well to do persons for the decoration of their drawing rooms. These clusters are very much used in South India.

II - Candle Light Jhars:

This product is the latest introduction of Aligarh electrical goods industry in the varieties of clusters. These clusters are more attractive in comparison to the cluster of brass brackets. The pieces of these clusters are not more and have not got an universal market and its consumption has been increasing day by day.
Some other important products of Aligarh Electrical Goods Industry are mentioned below:

1. Water tight brackets
2. Bath-room fittings
3. Shade carriers
4. Hand Reflectors
5. Lamp locks
6. Ceiling fittings
7. Water-tight switches
8. Cable-Sockets
9. Double reflector
10. Wires
11. Conduit fittings - Tee, Dend, Elbow, Joint Box or Junction box, Reducer-socket.
12. Holders
13. Pendant Rods
14. Brass Tilting Nipples etc.

The number of articles produced is increasing. But due to two reasons, quality has been affected, firstly due to keen competition amongst producers, and tendency of the public to purchase low priced goods.

For photographs of some of these products see Appendix.
CHAPTER - III

LABOUR CONDITIONS

INTRODUCTION: Importance of Labour and Source of Supply:

The study of sources of manufacturing units impels us to discuss in some detail the conditions of labourers employed in them. The importance of human element in industrial growth cannot be over emphasised. The two most important pillars on which the economic structure of any industry depends are capital and man of these two men being the active factor plays a more important role. It would hardly be an exaggeration to say that the labourers are the very limbs of industrial body and the persons engaged in the industry are lazy, incompetent, as again capable and hard working, will not contribute towards industrial uplift and the prosperity of the country.

The importance of labour in the field of industrial development of any country or town hardly needs any emphasis. New machines are being used. But physical labour if handled properly, and if luckily technically equipped will automatically and obviously give satisfactory results and prove a boom to industry.
The first point to be considered is to find out the various sources of labour supply to the industry of Aligarh. At present labour force for the Electrical goods industry of Aligarh comes from the following sources:

1. Local labour
2. Labour from adjoining villages
3. Labour from outside the District.

1. LOCAL LABOUR:

Skilled labourers who are employed in the industry are generally locally settled. This means that electrical goods industry is able to get the required supply from the area where the particular industrial unit is located.

2. Labour From Adjoining Areas:

In India villages are the main source from where big industrial establishments draw their labour force. Economic and social transformation has not checked this flow from the village to the town. As Aligarh is surrounded by small villages, the bulk of unskilled labourers employed in industries comes from neighbouring rural areas.
3. Labour from outside the Market:

The number of outside labour in Aligarh electrical industry is very small. Generally such workers are skilled. In the relative large scale units there are some technical and managerial experts, who have been imported from outside.

Classification of Labour:

By labour we do not mean a man doing a particular job. It includes men doing so many activities. Roughly estimated this industry provides employment to 1200 workers. Labour engaged in Aligarh Electrical Industry may be divided into the following categories:

a) According to skill - skilled and unskilled
b) According to caste and community - Hindus and Muslims.
c) According to the process.
d) According to sex.

We may assess the relative strength of the labourers according to the above evidence one by one.

a) Division of Workers According to skill

According to the quality of workers there are two classes of labourer viz., skilled and unskilled. Skilled labourer are those
who are expert technicians and have devoted to the whole of their lines to the industry. They are qualified in different arts of manufacturing and make first class articles of superior quality within a comparative shorter time. These expert technicians not only help in the production of fancy electrical goods, but also invent newer and latest designs and models. These new designs and models are intended to create a revolution in the consumption pattern of society, and these will help in capturing new markets by rendering older obsolete varieties. Unskilled workers are those who do not require any special training, who can be employed on odd jobs without previous notice. Normally they work under the supervision of skilled labourers.

The following table gives the relative strength of two categories of workers in electrical goods industry:

**Table No. 1**

Percentage-wise distribution of skilled & Unskilled labourer

<table>
<thead>
<tr>
<th>Labour category</th>
<th>No. of workers</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skilled</td>
<td>469</td>
<td>35.6</td>
</tr>
<tr>
<td>Unskilled</td>
<td>850</td>
<td>64.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1319</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Secretary, Electrical Association and Personnel Investigation, Aligarh.
B) **Division of Workers According to caste and Community:**

Every institution, every organisation in our country is filled with people of different beliefs. They live in a homogenous way but their heterogeneous character becomes apparent from their activities. In Aligarh electric goods industry we find people of different religions Hindus, Muslim and Sikhs. Though no fixed work has been set down for any particular community or caste. But it is an interesting fact that people belonging to a particular community dominate on a particular process. Among the Muslims, the majority of the people are of Ansaries, Barbar, Sheikhs, and Hangreiz. They are chiefly employed in the hand polishing fitting and fitting spray painting etc. There was a time before the partition of the country, the filling work was done by the Muslims in majority. But now the position has changed to remaining processes, viz, Assembling packing, brass, iron sheet cutting, etc etc. Most of the Hindus belong to the caste of the Brahman, Brahmans, Barhai coolies and Vaish. The coolies are employed in the moulding process and Brahmins in welding, fitting and fitting sheet cutting etc. Hindu workers are in majority. The following table gives the number of Hindus and Muslims of various castes.
Table No. 3

Number of workers in different processes

<table>
<thead>
<tr>
<th>Kind of worker</th>
<th>Men</th>
<th>Children</th>
<th>Women</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Moulders</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Mistries</td>
<td>240</td>
<td>-</td>
<td>-</td>
<td>240</td>
</tr>
<tr>
<td>b) Rhukariya</td>
<td>125</td>
<td>5</td>
<td>20</td>
<td>140</td>
</tr>
<tr>
<td>c) Mitti Pisaiya</td>
<td>95</td>
<td>20</td>
<td>35</td>
<td>150</td>
</tr>
<tr>
<td>2. Fillers and fitter</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Polishers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Mechanical polishers</td>
<td>35</td>
<td>6</td>
<td></td>
<td>41</td>
</tr>
<tr>
<td>b) Electric plators</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Sheet cutters</td>
<td>50</td>
<td>10</td>
<td></td>
<td>60</td>
</tr>
<tr>
<td>5. Spray painters</td>
<td>15</td>
<td>3</td>
<td></td>
<td>18</td>
</tr>
<tr>
<td>6. Welding</td>
<td>95</td>
<td>8</td>
<td>32</td>
<td>135</td>
</tr>
<tr>
<td>7. Packers</td>
<td>60</td>
<td></td>
<td></td>
<td>60</td>
</tr>
<tr>
<td>8. Pete 'aking</td>
<td>10</td>
<td></td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>9. Clerks and Munims</td>
<td>45</td>
<td></td>
<td></td>
<td>45</td>
</tr>
<tr>
<td>10. Miscellaneous</td>
<td>40</td>
<td></td>
<td></td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>1000</td>
<td>77</td>
<td>142</td>
<td>1319</td>
</tr>
</tbody>
</table>

Source: With the help of manufacturers and Mistries.

D) Division of workers on the basis of sex:

Aligarh electrical goods industry provides employment to a considerable number of children and women in different manufacturing processes. They are employed in those operations which do not require much technical knowledge. These processes are generally
filling, moulding, fitting, and welding. Apart from being cheaper, in many cases, women workers have proved more efficient than their male rivals in the different operations of productions. "Indu ladies are mostly experts in the art of moulding and welding, while the Muslim ladies are specialists in fitting. The women and children who are related to this industry do their work mostly at home and not in the industries.

Men of mature years and ages are generally more competent and skilled and hard working. Heavy, complicated and mechanical operations done by them. They are generally, employed in moulding, fitting, filling, electroplating, mechanical polishing and sheet cutting process etc.

Table 4

<table>
<thead>
<tr>
<th>Sex</th>
<th>Total No. of workers</th>
<th>percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>1165</td>
<td>88.3</td>
</tr>
<tr>
<td>Women</td>
<td>154</td>
<td>11.7</td>
</tr>
<tr>
<td></td>
<td><strong>1319</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Industrial Office of Aligarh and personal investigation.
3. Recruitment of labour:

Proper recruitment of workers is the first condition for the development of a stable labour force. It is true that employers have always been able to find recruits for industries, but it is one thing to run industries with labour and it is an entirely different thing to run them with workers who are suitable for jobs assigned to them. If proper care is not taken in the recruitment of labour force, the employers, the workers and the community are bound to suffer. Employer suffers if he does not get the man best suited for a particular job; the worker suffer if he cannot find a job for which he is best suited, and the community suffers as a result of low productivity and dissatisfaction among workers and employers. Proper recruitment of workers is thus the first condition for the development of a stable labour force. Recruitment is the first step in industrial employment. The ultimate success or failure of large employment depends in large measures upon the methods and organisation by means of which the workers are brought into the industry. The methods of recruitment followed by Electrical Goods Industry is as follows:

a) Recruitment through jobber
b) Recruitment at factory gates
c) Recruitment through additional lines.
d) Recruitment through employment exchange.
e) Recruitment through newspapers.
a) Recruitment through Jobber

Manufacteres always keep some thakadars, sardar, Mistries etc., who come easily in contact with a large number of people. They bring workers to factory for jobs. This is the most popular method of recruitment being adopted by electrical goods manufacturers of Aligarh. These people act as some via medias. The employers fix the terms and conditions of the workers with the help of these via medias. The conditions are highly conducive to financial gain for the jobber. Bribery is a common practice. They take a fixed commission on the supply of labour from the employers and on the other hand they also charge fee from workers as the price of engagement or re-employment after a period of absence. Now this method is losing importance.

b) Recruitment at Factory Gate

Recruitment at Factory Gate

In India persons in search of jobs are a common sight. They go to manufacturers at factory premises and also for jobs. If the manufacturer is satisfied with the man and his term he recruits him.

c) Recruitment through Additional Links:

Workers already employed in the factory advertise the vacancies amongst their relatives and friends and those who are in need of employment assemble themselves on the gate of the factory and with the help of these relatives they find a job.
d) Recruitment through Employment Exchange:

This method is best use in electrical goods industry of Aliyargh. Employers do not extend their cooperation to the employment exchange which is the most scientific method of getting the right sort of man for right sort of job. One or two units i.e., Imperial Electric Trading Company, sometimes fills up its vacancies through the employment exchange.

e) Recruitment through Newspapers:

Some of the firms are making recruitments through the newspapers. The procedure follows usually consists of advertising the posts for which the firms are needed. In the newspapers, the local papers namely Nagric, Danik Parakash, Saheed etc. deal with the advertisement of this sort.

This system in fact, has not made any marked progress in the case of industry due to the lack of literacy amongst the workers.

4. Methods of Payment:

This subject is related to motive force behind taking all sorts of inconveniences, by workers. Wage problem is the most important issue before a particular industry because wages determine the efficiency of workers which in turn has a sound effect on the working of the industry. The standard of living and efficiency of workers
working class depends upon the scale of wages they get. The essential thing towards a solution of the wage problem is a method of wage payment. The methods of wage payment followed by the Aligarh Electrical Goods Industry are:

a) - Time wage system.

b) - Piece Wage system

c) - Contract wage system.

a) - Time Wage System:

In this method the workers are paid on time basis. This is found in such cases of such categories of employees whose work is obviously impossible to evaluate on a quantitative basis. It is found in those trades where quality rather than quantity of output is an important consideration. The cases to which the system is confined are clerks, Munims, Mistries, Gate keepers, Salesmen and packers etc.

b) Piece Wage System:

In this system, wages are paid according to the quantity of work done. This is the most important method of remunerating the workers in the electrical goods industry. The piece wage system under which the workers are paid certain sums per unit or a piece of
work completed by them. In this system there is no limitation for working hours.

Both these systems have their own advantages. Under time wage system generally workers try to waste their time but do not try to deteriorate quality. But under the second method production per worker is larger but quality deteriorates. Piece wage system also enables the producer to discriminate to some extent between suppliers and less efficient workers and so by a re-arrangement of his staff to develop his organisation on the most productive and efficient lines. For checking quality, a proper check is kept by the employers by prescribing a certain standard of quality and the workers are paid accordingly. Such a system is found in moulders, fitters, polishers, electro-platers, sheet cutters and welders.

c) CONTRACT WAGE SYSTEM

In this system there is no direct contact between the workers and employer. The employer gives his work to a middle man who sets it ready by workers and this contractor also settles term of payment either orally or written. In this system makes it possible to produce any increased amount in emergency without much botheration.
But this advantage and other advantages, however, are
counteracted by the disadvantage of contractors power of
exploitation. Further it enables the principal employers to
escape most of the labour acts.

5 - Wages Earned: And Trend of Expenditure:

The quantity of wheat, pulses, fruits and ghee etc., that
a worker can consume and add to his health depends upon the amount
of his efficiency. If a worker is more active and smart, it will
add to quality and quantity of production. Therefore, we now pass
on to an examination of the actual amount of earnings of different
categories of employers in this industry.

The range of investigation is rather wide, because the
earnings vary not only from process to process but also from man to
man even in the same process according to skill integrity of the
operator. The relation of the workers, with the employer, their
standing and experience, the level of their skill experience and
training and vast number of other factors enter into the actual
process of wage fixation and sometimes too personal to be subjected to
scientific analysis and interpretation. The following table,
however, gives in broad terms, an indication, range of earnings
within which some of the important category of workers in a large
number of concerns may be said to generally be:
### Table No. 5

Earnings in Different Processes

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Particulars</th>
<th>Wages per month earned</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mini</td>
<td>Maximum</td>
</tr>
<tr>
<td>1.</td>
<td>Moulders:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mistries</td>
<td>140</td>
<td>-200</td>
</tr>
<tr>
<td></td>
<td>Puhubiyas</td>
<td>90</td>
<td>140</td>
</tr>
<tr>
<td></td>
<td>Mitti Pisai</td>
<td>60</td>
<td>110</td>
</tr>
<tr>
<td>2.</td>
<td>Sheet Cutters</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Kati cutter</td>
<td>50</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>Machine cutter</td>
<td>65</td>
<td>95</td>
</tr>
<tr>
<td>3.</td>
<td>Welder</td>
<td>70</td>
<td>100</td>
</tr>
<tr>
<td>4.</td>
<td>Fibers and fitters</td>
<td>80</td>
<td>120</td>
</tr>
<tr>
<td>5.</td>
<td>Polishing</td>
<td>60</td>
<td>100</td>
</tr>
<tr>
<td>6.</td>
<td>Spray painters</td>
<td>85</td>
<td>120</td>
</tr>
<tr>
<td>7.</td>
<td>Packers</td>
<td>55</td>
<td>75</td>
</tr>
<tr>
<td>8.</td>
<td>Clerks and Munimis</td>
<td>90</td>
<td>170</td>
</tr>
<tr>
<td>9.</td>
<td>Selling agents</td>
<td>160</td>
<td>250</td>
</tr>
</tbody>
</table>

Source: Personal Enquiry.

**Trends of Expenditure:**

In spite of such a meagre income these workers are not familiar with their lot and do not spend their income in a manner as to get maximum satisfaction. Before advocating the
case for an increase in wages, it is essential to work into the wages in which they spend their earnings. It naturally leads us to an examination of the workers model family budget, the details have been given in Appendix. The following percentage distribution of the income spent by the average workers is given for ready reference.

Table No.6
Trends of Expenditure of Typical Labour

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Item of Expenditure</th>
<th>Percentage of the income spent.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Food</td>
<td>46.0</td>
</tr>
<tr>
<td>2.</td>
<td>Clothing</td>
<td>12.0</td>
</tr>
<tr>
<td>3.</td>
<td>House rent and repairs</td>
<td>8.0</td>
</tr>
<tr>
<td>4.</td>
<td>Light and Fuel</td>
<td>7.8</td>
</tr>
<tr>
<td>5.</td>
<td>Educational and Health</td>
<td>2.5</td>
</tr>
<tr>
<td>6.</td>
<td>Recreation and Amusement</td>
<td>11.0</td>
</tr>
<tr>
<td>7.</td>
<td>Miscellaneous</td>
<td>12.7</td>
</tr>
</tbody>
</table>

Total 100.0

The inscientific character of the workers expenditure is obviously enough from the above table. As shown above the expenditure on Recreation and Amusement and Miscellaneous heads
alone comes to about 23.7 per cent of the total income when it is explained that the Miscellaneous head includes such items as making, drinking, etc. The defect of budgetting becomes all the more prominent. Expenditure on health and education is almost next to nothing. In spite of this, the investigation reveals that a large number of workers are indebted.

6. WORKING CONDITIONS:

It is said that environment creates a man and if we improve the environment we improve the man. The working condition under which a person works have got a marked influence on his health, efficiency and quality of work done. Good working conditions have a great effect not only on the efficiency of workers but also on their wages, migratory character and industrial relation among the workers and employers. Working conditions generally depend upon the mercy of the employer. Working conditions in electrical goods industry at Aligarh are far from satisfactory if we examine them on the basis of the working condition as they exist in Western Countries or as they should be in an idle industry. But thinking of the relative position of industry we can say that working condition on the whole are not too bad.

A - Factory Premises:

The manufacturing work is done on different scales and...
different capacities. Most of the work is done in small
dwelling houses. The whole factory premises of the industry
may be divided into three types of factories

1) large factories
2) Small scale workshops
3) Cottage and house workshops.

The condition of working premises of the large factories are
satisfactory to some extent. Mostly all these factories
are newly constructed according to provisions of the Factory Act
1948. The arrangement for temperature rest rooms, ventilation,
space inside the factory, safety measures drinking water, bath
rooms etc. are particularly considered in constructing buildings
of factories.

But the condition of working premises in case of small
scale workshops and house workshops are very pitiable. With no
arrangement even for dirt mobe and drinking water, they are
situated in congested areas and dirty surroundings. These workshops are
the Paachcha workshops and the small four walls have been made
which are covered with chhappar.

B - Housing Condition:

This seems to be satisfactory. Because this problem arises where
the workers reside in industrial locality. But in case of workers engaged
in electrical goods industry, this is not the case. Most of them
local, spent their non-factory time at their own houses.
C - Employer, Employee Relationship

Employer-employee relationship is an important aspect of the situation. We find that in case of this industry the atmosphere is not free from tension. Most of the units are not very big and therefore employers are able to maintain a close contact with their employees. Few workers in a particular unit are dealt as their own man.

D - Trade Union:

Trade unions safeguard the interests of labourers and provide facilities and labour welfare. But in case of this industry the most of the workers are illiterate. Due to illiteracy, they could not maintain their union. Now there union is divided into sub-unions. They have only the slogan and when the temperature arises they wish the help of Dhatu Mazdoor Sangh, (which is a union of all factory workers in town), start a campaign for rise in wages.

E - Working Hours: Overtime, Holidays and Leave Etc:

The Factory Act 1948, introduced the scheme for such provision. The period of working hours was fixed to 48 hours in a week or 8 hours in a day by the act. But in case of electrical manufacturing
units, it can be said that only a few large scale electrical goods manufacturers are working according to the Factory Act. Most of the workers are busy in their work from morning till evening. So the range of working hours in the industry varies from 8 hours to 14 hours in a day. The working hours generally begin from 8 A.M. to 5 P.M. in their an interval of an hour.

Rules and regulations in connection with the overtime work are purely governed by the employer of the industry and not by the Factory Act 1948.

The position with regard to holidays and leave is not satisfactory in electrical goods industry. Holidays and leave with pay are generally granted only to permanent workers, electrical and supervisory staff. The daily rated piece rated and contracted workers are usually not given any holiday with pay. A weekly holiday is generally provided by each firm and factory to its workers. But labourers, even in holiday, are seen, working in the houses and behind the door of their shops.

C - Provident Fund Facilities:

Some all electrical goods factories are providing the Provident Fund Facilities to their workers. The labourer get their provident fund at the termination time of their services. A number of factories which indirectly have more than 50 to 60 workers do not offer the provident fund benefit, to their workers.
The main responsible reason for this are the negligence of Duty of Government Labour Department and system of piece rate wages being adopted in industry.

D - Technical Training:

Workers work under the guidance of their 'Ustad' in the Karkhanas and learn the art from their Ustad since their childhood and become expert artisans. These artisans invent new designs and better methods of production. Except this electrical goods dealers do not provide any technical training to their workers. The lack of technical training has hampered the progress of industry. The training imported by 'Ustad, is very narrow in the rank and these trainees are not able to introduce new ideas in production and only old ideas are repeated. Industrial training Institute at Ali arh provides training in some processes.

7. LABOUR EFFICIENCY:

Several causes are responsible for the workers inefficiency. Apart from the poor physique, illiteracy, and lack of the technical training and less discipline character, the undermentioned are the main factors which affect the low efficiency of workers of electrical goods industry.
a) **Low Wages:** The wage of workers in the Aligarh Electrical goods industry are very low sometimes a worker does not even get more than Rs. 35/- per month so it is impossible in this case to go before a doctor in disease while he is not able to get proper diet. This results upon the efficiency because much of his efficiency depends upon his income.

b) **Low standard of living:** It follows from low wages, the standard of living of the workers is very low, inadequate and unbalanced, a dirty house to live in and insufficient clothing to cover his body and complete absence of expenditure on medical aid, education and recreation must effect his health and efficiency.

c) **Bad working Conditions:** The workers work in such constructions, which do not provide any relief from Loo in summer and chilly wind in winter. The use old and worn out tools, more working hours without adequate amenities. All these conditions fear upon the workers health and efficiency.

d) **Lack of Organisation Among Workers:** Lack of labour organisation is also a root cause of workers inefficiency. An organisation may take look after the rights and duties of the workers and also may press the employers to accept the reasonable demand like reducing more working hours, provision for holidays and leave etc, so that the efficiency of the workers may be possible.
8 - Means for the Improvement of Low Efficiency:

In order to improve efficiency, attempts to weed out these defects and difficulties, have been made from time to time, but they have ended in smoke. But in anyway it will be necessary to adopt a comprehensive programme of labour uplift so that workers might be able to improve their efficiency.

a) Labour Welfare Work:

This term is fairly well understood but no steps in this direction by factory owners have been taken up. State and central governments are taking active part in labour welfare work. U.P. Government has established labour welfare centres in almost all districts.

b) Technical Training:

Technical training is necessary for new comers, but there are not adequate provision for training. Industrial training Institute, Aligarh provides training in some processes such as moulding, welding, sheet cutting, electro-plating etc. not in all processes. In rest of the processes, workers get accustomed by themselves. There sould be sound provision for training

c) General Working Condition:

The will to work increases when the general working conditions are good. At present, there is no provision for heating the factory
premises during extremely cold days. Treatment of mistrees and employees should be loving and reasonable.

d) Legislation:

Factories governed by Factory Act 1948 provide some facilities. The smaller units, however, neglect these provisions like Employment of children Act, Maternity Welfare Act various acts are not being taken seriously by employers.

e) Government and Employers:

Main cause of inefficiency of workers is inertness of Government and coldness of employers towards true spirit of electrical goods making business as an industry. Steps taken by U.P. Government, include only, opening of two welfare centres and state Insurance scheme for medical help. But no material change in the general conditions of the labourers has been effected.

Some charges are to be levied against the employer. Housing and factory sites where the workers live and work are most shocking, being unclean and unhygienic Medical facilities, sanitation, entertainment, education, maternity benefits provided by the employers are completely nil.
Welfare activities increase the efficiency of the workers and imparts in them a new spirit of self-realisation and consciousness. Welfare activities in this industry have two aspects:

i) Welfare activities rendered by the labour welfare centres and another is by Employers State Insurance Scheme.

a) Labour Welfare Centres:

Medical section: Under this section medical aid is provided to the workers. There is a medical in-charge in each centre. Dispensary provides for Homeopathic treatment. A nurse is in-charge of maternity.

b) Reading Room and Library:

This section is controlled by the Assistant of the Office. In reading room, papers and periodicals, magazines and Bulletins, beneficial for the working class people, are dealt with. Books of general taste are also available such as novels, stories etc.

c) Recreation And Games Activities:

There are various activities done for the recreation of the workers. Radio, Harmonium, table etc, are the main items of this section. A part time music teacher is employed in every centre. The activities of indoor and outdoor games are also available. These games activities are supervised by the supervision of
Superintendent of the Centre.

d) Tailoring Section:

Training of sewing, knitting and cutting is given to the working class women by the sewing instructor. Examination is also held and successful candidates are issued certificates.

ADULT EDUCATION:

The schools for the education of adults are also running by these centres. Classes are held for two hours. Honorary teachers are kept to provide education. No fee is charged and books are also given.

TOURNAMENTS:

Every year tournaments of different items are arranged. Workers and their children participate in these and win prizes.

B: - EMPLOYEES STATE INSURANCE SCHEME:

This scheme was implemented in Aliyark on 1st of April 1958. The Act applies to all factories working with power and employing at least 20 employees. Under this scheme, provision of medical benefit is state Government's responsibility. A medical dispensary was started from First April 1958. It treats insured persons and his
family. Even X-ray photos are traced by medical officer. But the doctor is only one while there is rush of patients. There is no arrangement for serious cases. Times is 8 a.m. to 12 a.m. in this time workers work in factories. Medical officer does not see after dispensary hours.

**ADDITIONAL MEASURES OF LABOUR WELFARE AND SOCIAL SECURITY:**

Higher efficiency of labour depends to a great extent upon the welfare and social security scheme. But the importance has not been realised. Greater security of service to workers of small units.

1) Technical training
2) Strict enforcement of Existing Legislation.

Second steps should be taken in these directions. Then the workers will get peace. Peace for which employer complain too much, will cure all diseases.

**CONCLUSION:**

The survey regarding the labour conditions in Aliqarh industry reveals many interesting feature. Labourers are generally
dissatisfied with their owners. The reason seems to be the boring environment which is clustering over them. Skilled workers are somewhat in a better position than others.

The adoption of the above measures will go a long way in improving the position of the workers. Ultimately however, it will be workers themselves who will have to contribute towards their improvements. The sooner they realise that their destiny is in their own hands, the better for them and for the society. Let us hope the changes and reforms mentioned above will create the necessary awakening and thereby contribute towards the attainment of long cherished hopes of working class.
CHAPTER IV

ORGANISATION & MANAGEMENT

In this chapter, we intend to study how far the electric goods producing units are able to utilise the productive resources to maximum possible level. Obviously for this, we will be examining the organisation of this industry. A proper organisation is needed for achieving the optimum results from given amounts of resources in land, labour, raw materials, finance and capital equipments.

In Economics, we are faced with a situation of choice to what extent the present set up is successful in making this choice, is to be seen in this chapter. Factories, in their recognised form, with upto date machinery installed in big buildings and operated by hired labour are few in number. The majority of the units are so called cottage workshops, where work is done in the residential houses and the old fashioned hand tools are used.

On We find different type of units, difference lies with their scale of operation and nature of work that they undertake. To make our analysis clear we can call them cottage workshops, small scale and large scale workshop. Some of them are registered under factories Act 1948, (employing more than 10 labour and using power) some of them neither employ any labour nor use electricity, others fall in between these extremes.
The following table gives a picture of nature and size of these industrial units.

Table No. 7

Nature of Workdone in Units of Different Size

<table>
<thead>
<tr>
<th>Nature of work</th>
<th>Division of workshops and factories according to their nature and work</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cottage workshops</td>
</tr>
<tr>
<td>Work on their own behalf</td>
<td>5</td>
</tr>
<tr>
<td>Work on behalf of suppliers</td>
<td>30</td>
</tr>
<tr>
<td>Work on behalf of both</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>42</td>
</tr>
</tbody>
</table>

Source: Personal investigation.

We will construct more tables to give a simplified and full-fledged view of the organisation of industry.

In order to differentiate between workshops and factories it is useful to study the number of persons engaged in them. Number of persons employed is the criterion for indicating the industrial set up of industry.

The following table shows the p.c. of work done by the group of workers in different workshops.
### Table No. 8

Contribution of output of the Industries related to units of various sizes

<table>
<thead>
<tr>
<th>Number of workers</th>
<th>Number of workshop and factories</th>
<th>Percentage of total output of the industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 25</td>
<td>15</td>
<td>4</td>
</tr>
<tr>
<td>15 - 25</td>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>25 - 35</td>
<td>16</td>
<td>27</td>
</tr>
<tr>
<td>35 &amp; above</td>
<td>4</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>66</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Personal investigation.

Manufacturing units also differ widely in their mode of ownership some of the units are owned by one individual, proprietor (i.e. single proprietorship) some are partnership firm other are Joint family concern.

### Table No. 9

Distribution of Units according to ownership

<table>
<thead>
<tr>
<th>Types of firm</th>
<th>Cottage workshop</th>
<th>Small scale work</th>
<th>Large scale work</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Proprietor</td>
<td>26</td>
<td>5</td>
<td>-</td>
<td>31</td>
</tr>
<tr>
<td>Partnership firm</td>
<td>5</td>
<td>8</td>
<td>3</td>
<td>16</td>
</tr>
<tr>
<td>Joint family concern</td>
<td>11</td>
<td>5</td>
<td>2</td>
<td>18</td>
</tr>
<tr>
<td>Private companies</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Fictitious firm</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>42</td>
<td>18</td>
<td>6</td>
<td>66</td>
</tr>
</tbody>
</table>
A - Single Proprietorship:

Such units are owned by one person. Who has sometime collected funds and started the work. The individual entrepreneurs are found carrying their work in different capacities and on different scales. On the industry level, their feature appear to be completely different. Most of them carry production work, with the help of few tools and implements in their own houses. Others carry productive activity a higher scale. They produce in larger quantity. These individuals always suffer from disadvantage of slow growth of production due to individual policy.

B - Partnership Firm

It is an interesting fact that mutual confidence is found amongst electrical producers. The partnership firm are in majority. Such concern possess sufficient funds and carry production in their own premises. The intelligence of one is added by another person, so firm gets double care. It has been found that most of the partners are relatives and are comparatively literate people.

C - Private Companies:

Only one firm exists in Aligarh. Shares of such companies are held by members of the same family so it is not different from
Partnership. Most of the persons engaged in production work are illiterate so they possess the quality of separation, that is why, such units are not seen in Aligarh.

D - Joint Family Concern:

In some cases joint family member are own and operate the manufacturing units. Generally the senior most men (father) acts as the head of the organisation and units develop under his careful guidance.

A society named Rastriya Vijle V.Sabkari Simiti has been working for some years. It helps members by providing them with raw materials at cheaper rate than prevailing market rates.

On the basis of scale of operation we divide the present set-up in three categories:

i) Cottage Workshop.
ii) Small Scale Workshop
iii) Large Scale Factories.

i) Cottage Workshop:

Persons grouped in this category are characterised of similar feature. They possess a very small amount of capital and produce only some parts of different items. They do not and cannot take the entire manufacturing process involved in the making of electric good. Their staying power is negligible. They sell goods daily otherwise most of them will run into financial crisis.
ii) Small Scale Workshop

Chief feature of this group is that they employ outside workers instead of family members. They own some capital and machinery. The workshop are found in rented house, which appear from outside the walls, as a deserted house. Only from the name plate of firms, it can think of work going on inside. Almost all of them produce brackets and table lamos of different types.

iii) Large Scale Factories:

Such undertakings are those registered under Factory Act. They are governed by other factory rules also. They possess the modern power driven machines and are employing even full time managers, clerks, selling agents personally. They produce a variety of products. Some of them have such reputation that they exporting to other countries. It is due to their productive efficiency.

In addition to units, grouped above, there are a large number of business concerns, who do not indulge personally in the production activity but by advancing money and raw materials, they get the finished goods in return by paying them contracted money.
Critical Study of Existing Organisational Set Up

In this industry, we do not find use of modern methods or techniques and implements in most of the cases. There are only few large scale firms, they use the modern machines and are capable of carrying work on the lines of division of labour. They have better sources of finance and apply the most productive sources within their reach. They also care about quality of products. But the case of cottage and small scale workshops is quite different. Division of labour is hardly possible there. So the organisation does not lead to maximum efficiency. Their main interest lies in the quantity they produce, they do not care about quality. But sometime they produce a good which though of an inferior quality can be sold at cheap rate. Cheaper than charged by quality producers. Traditional mistries are found to be incharge of particular firm. All oocesses are carried according to their directions. But it is seen that they are also not competent in all trades and oocesses. This results in deterioration of quality and decrease in production.

Though the workers of Aligarh are said to be possessing inherent skills, and they are much better than workers of surrounding areas, the only factor responsible for their inefficiency and low yield on at the industry level is lack of implements. Some of small scale mmk produce who have acquired modern tools and machines are getting the best results. Lack of education and finance are the
main hindrances in way of optimum results.

It is unfortunate to note that though some care is taken with regard to quality improvement by big units, the possibility of research and new methods does not appear there. There is no institution to carry out needed research.

We can say that the present organisational set up is unscientific with no provision of division of labour and standardisation. And it results in wastage of resources, smaller output and inferior quality of product.

**CONCLUSION**

The small units do not provide more job opportunities. They want to produce, and meet the orders by working themselves day and night. They do not want to hire outsiders in their concern. Large firms are much more economical and efficient. They also follow the instruction given by the inspector of Small Scale Service Institute who advise them in regard to quality improvement and etc. But there are complaints regarding the working of this institute also.
This section describes the pattern and structure of the total capital employed, along with its break up into fixed and working capital.

11:- FINANCE REQUIREMENTS:

a) **Fixed capital**: The fixed capital is generally needed for factory building, permanent tools and specialised machines. The nature of an industry determines as to what amount should be required in the form of fixed capital. In comparison to other industries of Aligarh, Electrical goods industry does not employ very high amount of capital due to lack of resources. More than 40 per cent of artisans are financially weak and are not in a position to invest big amounts in form of fixed capital. At the same time there is also dearth of agencies which can financially support these persons. This fact will be illustrated in the following pages.

b) **Working capital**: It is the amount of capital needed to get the operation started and to keep them running. It fulfills the day to day requirements.
The undermentioned figures are intended to give an idea of such capital investment.

<table>
<thead>
<tr>
<th>Item</th>
<th>(a) Group A</th>
<th>(a) Group B</th>
<th>(a) Group C</th>
<th>(b) Group A</th>
<th>(b) Group B</th>
<th>(b) Group C</th>
<th>All Group (a)</th>
<th>All Group (b)</th>
<th>All Group (c)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. No. of units</td>
<td>36</td>
<td>26</td>
<td>5</td>
<td>66</td>
<td>36</td>
<td>26</td>
<td>5</td>
<td>66</td>
<td>66</td>
</tr>
<tr>
<td>2. Fixed capital (000 Rs.)</td>
<td>90.0</td>
<td>320.0</td>
<td>520.0</td>
<td>930.0</td>
<td>129.5</td>
<td>1293.0</td>
<td>704.1</td>
<td>1931.6</td>
<td></td>
</tr>
<tr>
<td>3. Working capital</td>
<td>110.0</td>
<td>740.0</td>
<td>410.0</td>
<td>1260.0</td>
<td>110.0</td>
<td>740.0</td>
<td>410.0</td>
<td>1260.0</td>
<td></td>
</tr>
<tr>
<td>4. Total</td>
<td>200.0</td>
<td>1060.0</td>
<td>670.0</td>
<td>2190.0</td>
<td>239.5</td>
<td>1838.0</td>
<td>1114.1</td>
<td>3191.6</td>
<td></td>
</tr>
<tr>
<td>5. Average per Unit (in Rs.)</td>
<td>5560</td>
<td>40400</td>
<td>186000</td>
<td>33200</td>
<td>6652</td>
<td>70692</td>
<td>22282</td>
<td>48357</td>
<td></td>
</tr>
</tbody>
</table>

Note: Group A refers to artisan, B to small scale producers and C to large scale producers (deistered under Factory Act).

Source: Personal Investigation and Distt. Industrial Office.

The total capital employed in this industry along with its break-up into fixed and working capital is given in this table.

Fixed capital has been computed on the basis of historical value of fixed assets as well as on the basis of replacement costs. Both from
the point of view of the current capital needs as well as from that of the expansion programmes of these industries, fixed assets valued at replacement costs are more significant.

The total amount of capital employed in the industry amounts to Rs. 2190.0 thousands on the basis of historical costs of which Rs. 930.0 thousands was fixed capital and Rs. 1260.0 thousands working capital. Fixed capital is relatively very high in group C, which is characterised using electric driven machinery and work is carried in up to date factories. In group A, where work is done by small artisans, the amount of fixed capital is only 90.0 as compared to 930.0 rupees in group D.

The average capital of an establishment in this industry increases sharply with a change in the process of manufacture and total number of workers.

**COMPOSITION OF FIXED CAPITAL**

The composition of fixed capital on the basis of historical cost and replacement is given in the following table.
### Table No. 11(a)

Composition of fixed capital on the basis of Historical cost (000 Rs).

<table>
<thead>
<tr>
<th>Item</th>
<th>Group A</th>
<th>Group B</th>
<th>Group C</th>
<th>All Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Land &amp; Building</td>
<td>39.9</td>
<td>82.5</td>
<td>383.5</td>
<td>505.9</td>
</tr>
<tr>
<td>2. Power Driven Machinery</td>
<td>-</td>
<td>126.0</td>
<td>127.4</td>
<td>253.4</td>
</tr>
<tr>
<td>3. Hand Driven Machine</td>
<td>21.1</td>
<td>109.0</td>
<td>3.9</td>
<td>134.0</td>
</tr>
<tr>
<td>4. Tools</td>
<td>25.6</td>
<td>1.3</td>
<td>2.1</td>
<td>29.0</td>
</tr>
<tr>
<td>5. Miscellaneous</td>
<td>3.4</td>
<td>1.2</td>
<td>3.1</td>
<td>7.7</td>
</tr>
<tr>
<td>6. Total</td>
<td>90.0</td>
<td>320.0</td>
<td>520.0</td>
<td>930.0</td>
</tr>
<tr>
<td>7. Average per unit</td>
<td>2500</td>
<td>12307.7</td>
<td>104000</td>
<td>15500</td>
</tr>
</tbody>
</table>

### Table No. 11(b)

Composition of fixed capital on basis of replacement cost (excluding land & buildings) (000 Rs.)

<table>
<thead>
<tr>
<th>Item</th>
<th>Group A</th>
<th>Group B</th>
<th>Group C</th>
<th>All Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>1. Power driven machine</td>
<td>66.5</td>
<td>326.0</td>
<td>453.0</td>
<td>779.0</td>
</tr>
<tr>
<td>2. Hand driven machine</td>
<td>49.8</td>
<td>500.0</td>
<td>142.9</td>
<td>709.4</td>
</tr>
<tr>
<td>3. Tools</td>
<td>13.2</td>
<td>187.0</td>
<td>75.8</td>
<td>312.6</td>
</tr>
<tr>
<td>4. Miscellaneous</td>
<td>85.0</td>
<td>32.4</td>
<td>130.0</td>
<td></td>
</tr>
<tr>
<td>5. Total</td>
<td>1098.0</td>
<td>7041</td>
<td>1931.6</td>
<td></td>
</tr>
<tr>
<td>6. Average per unit</td>
<td>3597</td>
<td>42269</td>
<td>140920</td>
<td>29266</td>
</tr>
</tbody>
</table>

*Source: Personal Investigation and Distt. Industrial Office.*
Column 4 in this table points out the existing state of building. In large scale establishments the conditions is rather satisfactory.

Power Driven machinery enjoys highest rank in Group B and C. In Group B out of the most of firms employ electrical driven machinery. To artisan in Group A, hand tools are more important than to other groups.

Replacement cost of fixed assets does not include the value of land and building. Any attempt to include it would involve problems of imputation and reduce the usefulness of estimates. In view of this item have been excluded from replacement cost of fixed assets.

WORKING CAPITAL

The composition of working capital is given in the following table.
Table No. 12
Composition of Working Capital (000 Rs.)

<table>
<thead>
<tr>
<th>Item</th>
<th>Group A</th>
<th>Group B</th>
<th>Group C</th>
<th>All Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Stocks of Raw materials</td>
<td>49.0</td>
<td>360.8</td>
<td>200.6</td>
<td>610.5</td>
</tr>
<tr>
<td>2. Finished products</td>
<td>12.5</td>
<td>122.2</td>
<td>110.8</td>
<td>256.5</td>
</tr>
<tr>
<td>3. Semi finished product</td>
<td>23.4</td>
<td>148.8</td>
<td>30.6</td>
<td>191.8</td>
</tr>
<tr>
<td>4. Cash in hand</td>
<td>5.0</td>
<td>19.4</td>
<td>23.0</td>
<td>52.4</td>
</tr>
<tr>
<td>5. Miscellaneous</td>
<td>20.1</td>
<td>88.8</td>
<td>40.0</td>
<td>148.8</td>
</tr>
<tr>
<td>6. Total</td>
<td>110.0</td>
<td>740.0</td>
<td>410.0</td>
<td>1260.0</td>
</tr>
</tbody>
</table>

Source: Personal investigation and Distt. Industrial Office

From this table it is clear that raw materials are the most important item in all groups. The cash reserve position of these firms is very weak. It is especially so of groups A. The share of semi-finished goods to finished goods is larger in group A and 3. In Group C it is lower because they sell out products in complete form.

These figures indicate the amount of working capital currently employed in firms and not their actual requirements. It will be seen elsewhere in the report, most of the establishments
work below their capacity. If production is geared to full capacity their working capital requirements will increase sharply. In fact, in many cases the reason given for the existence of unused capacity was the shortage of working capital.

If more units could obtain loans at reasonable rates of interest (i.e. in relation to their scale of operation), they will be able to hold larger inventories of finished goods as well as of raw materials and expand their production. This will also relax to a certain extent the hold of the trader cum money lender who in the present set up, encroaches on their meagre profits by performing these functions.

3. SOURCES OF FINANCE:

Aligarh electrical goods industry is essentially a cottage and small scale industry which financially stands on the shoulders of its masters. There is hardly any institution to meet its requirements. Main source of finance are friends and relatives. But there are some other sources also. It is rather difficult to assess the actual amount obtained from these sources. Neither the dealers of the industry nor those who finance it are willing to leak out their financial arrangement. Under these circumstances
what is possible merely is to indicate the relative significance of these different sources, terms and conditions on which finance is obtained. The sources of finance are grouped as follows:

1. Proprietor’s Investment
2. Friends and relatives
3. Money lenders and shroos.
4. Middlemen
5. Commercial Banks

a. Proprietor’s Investment:

A major portion of finance comes from the proprietor’s himself. Electrical manufacturing units are generally either are owned by one man or two brothers by a father and son. A new comer can dare to start manufacturing work only when he has command over a handsome amount because the prospects of getting money from other source are not bright in the beginning period. So the share of proprietor’s investment holds the monopoly position in the total investment.
b) **Friends and Relatives:**

It has been found that electrical manufacturers are sometimes fortunate enough to get financial help from friends and relatives also. In the earlier stages when their funds are not sufficient enough or at the time of any emergency they take loans from their friends and relatives. But the amount which can be obtained from these sources is very limited because on the one hand the number of such persons who have rich friends and relatives is small and whosoever exist there they are also not very rich persons. But the great merit of this source is that money is available either free of interest or at a moderate rate of interest.

c) **Money Lenders and Shroff:**

There are such persons whose advance loans to needy industrialists and expects a good return from their lending. They give loans against tangible property. Borrowers who have no securities to offer are provided with loans against Promises and hundies. The rate of interest from two to 3 1/2 per cent on loans advanced against security for short periods or from 2 to 5 per cent on loans advanced on promises and hundies.
These lenders are the only reliable and prompt source of financing the poor units of Aligarh. They can give any amount of money. But the greatest demerit is regarding the terms and conditions and interest rates. This affects production activity.

d) Middlemen:

The commission agents, suppliers, shoekkeepers, wholesale dealers are taken in this category. These middlemen play a very vital role in financing of the industry. They advance money at low rates of interest and also supply raw materials, tools and implements to the poor artisans. They also advise and help artisans in manufacturing new designs and models of electrical goods.

But the drawbacks of this source is that weak manufacturers are forced to sell their goods at cheaper rates than the market rates. Artisans take money from them and have to refund within 10 to 15 days so they sell finished goods to those persons to get fresh loan.
e) Banks:

The commercial banks advance loans to the manufacturers against the security of raw materials, ornaments and finished products, railway receipts and drafts received from purchasers. But only 75 per cent money is given to the borrowers as against the security received. The important commercial bank of Aligarh that provide credit to electrical manufactures are the Allahabad Bank Ltd., Central Bank Ltd., and Punjab National Bank Ltd. District Co-operative Bank Ltd., Aligarh also advance loans to poor artisans but its sources are meagre. There are few co-operative credit societies at Aligarh to advance loans but they provide loan only to its members. Funds of these

f) The State:

The state government sometime ago decided to provide loan to manufacturers and Directorate of Industries opened an Industrial Department in Aligarh. Some firms were benefited by this office in matter of loan. But recently there has been a shift in attitude of policy makers and they appears to be in a mood of advancing loans. Small firms are also getting due attention. But it is see that those who have access to or
have political or any other influence get more money and rather conveniently. This conclusion is drawn from an examination of the personal life of the recipient.

Until now many electrical manufacturers have taken grants through the I.P. Financial Corporation as the following table indicates.
A COMPARATIVE STUDY OF EXISTING FINANCIAL INSTITUTIONS

Out of the above mentioned sources some have sound financial strength and can provide any amount to anyone, but their terms and conditions are not justifiable, and those whose terms and conditions are liberal are not in a position to advance adequate amounts. The best source from the point of view of finance is indigenous bankers, Mahajans etc. But Banks and State provide loan to permanent figures and process of lending is very complicated and out of reach of artisans who are mostly illiterate. Relatives and friends constitute a reasonable source but can provide loan only in limited quantity.

Money lenders may be regarded as supporting legs of the financial structure of the industry.

DEFECTS IN EXISTING ARRANGEMENT:

1 - Main defects are following: Domination of money Lenders and high rates of interest
2 - Lack of reserves and accumulated Funds
3 - Attitude of banks
4 - Apathy of the Government.
1 - **Domination of Money Lenders and High Rate of Interest:**

The significance of money lenders can be traced from the fact that they can provide at any time, any amount and to any one. In such a position, they are at liberty to charge any rate over the loan. Not only they charge high rate but also causes mental troubles to borrowers.

2 - The owners are sometime seen in need of money, to carry on the work on the next day. They do not have sufficient accumulated funds. Though the financial position of some of the units is sound but in most of the cases, or we may say, in case of those producers who produce at a very small scale the financial trouble is headache to them.

3 - **Attitude of Bank:** Banks are always in search of those customers who can provide them with sound securities. As a result there are only a few firms who can borrow from banks by providing required securities. To some extent banks can be blamed due to the fact that in the recent past there have been cases of cheating the bank. People produced fictions documents and obtained loan. But from last few months, the situation has changed a bit and there are bright prospects.

4 - **Inadequacy of Government:** In spite of the fact that the small scale industries has an important role to play in our country's development. The Government did not do anything concrete in matter of providing finance to electrical producers. As it is obvious from the facts that there were only 5 or 6 firms which have been allotted grants by State.
REMEDIES:

1 - Commercial banks should adopt a more liberal attitude. They should provide more facilities to borrowers by way of their dealings and behaviour. (The large number of artisans who do not know even about this source should be attracted. This can be done if they adopt a liberal attitude). Complication should be reduced in the procedure.

2 - For the encouragement of new industrial enterprise, there is the need for a special type of Development Corporation. It should be much more than a mere financing body, rather it should plan new lines of industrial enterprises, promote and finance them and as soon as they become profitable they should be handed over to private industrialists.

3 - The problem of credit and finance of small and medium sized firms producing electrical goods is vitally related to problems of availability of raw materials, technical skill and managerial ability. It is therefore, essential to develop an overall approach to these different aspects of the problem of development, of which provision of credit and finance is only one of the essential function. When these non-financial sides are made available in large measure the organisation of medium and small
scale firm is improved and market for their products are expanded on a stable basis, their competitive position will be strengthened and their credit worthiness increased.

Condition and environment surrounding electrical goods units underline the need of organising the cottage workers on co-operative lines. In isolation they cannot come out of these difficulties. Societies which will deal with other allied functions also, will be helpful in this direction.

If, by working a policy on this suggestion, anything is done then it can be hoped that this industry which is fulfilling the growing demand of private as well as of public sector requirements and is saving foreign exchange will get a great impetus to develop.
CHAPTER VI

MARKETING

The other factor which comes in the way of progress and development of electric goods is the present method of marketing the produce adopted by the producers. Marketing is an important aspect of any industry, and if sound methods are not adopted in this connection the development of the industry will be hampered.

Now we will examine the relation between producers and purchasers and the producers' attempts at more efficient marketing. We shall also examine the selling activity in this context.

Methods for Securing Orders for Sale:

Aligarh Electrical Goods find a market not only in Aligarh but outside of Aligarh and even outside of U.P. The products fulfil requirements of different cities and towns in India. The method of sale differs in several cases because the goods are sold not only to private users but are also sold to Government Department.

The Method of Sale Can be grouped as follows:

1. Sale to Government Department
2. Sale to Private individuals.
1. Sale to Government Departments:

Every government Department arranges rate contracts by initiating competitive quotations through the circulars. In these circumstances the specification, quality, number of articles required etc., are mentioned. Willing suppliers submit their quotations to the same accordingly. After receiving orders from government the supplier tries to arrange for the delivery of the articles according to the offer within the appointed time.

This method provides a basis for fixed supply of articles. The quality is also taken into consideration while meeting government orders. This method saves time of produce and it is economically an efficient method.

2. Sale to Private Persons:

Principle method adopted in case of private consumers are as follows:

Articles are disposed of from factory by different agencies. The main agencies involved in sale of electrical goods are mentioned below:
A - **Through Agents:** These agents are credited for almost 75 per cent sale of electrical goods. Some of them work as part-time workers to electrical producers. Most of them take up several engagements at a time. They travel from town to town and do **commission** for the manufacturer concerned. And by satisfying the customer, these may be big business houses, or wholesaler or retailers, at any place, in India. In return they get remuneration from their employer. Some of them get fixed pay and other commission.

B - **Wholesalers:** Some wholesaler also purchases goods either directly from manufacturers or through agents. They buy in bulk and then pass on to retailers.

C - **Suppliers:** Agencies which give money and raw materials to artisans and get back finished products are found in quite large number. They enjoy big profits. They get articles at very low rates and after giving them a little more finishing sell them at a very high prices. They also employ agents.

D - **Shopkeeper and Retailers:** This constitute a very small part in total products. They purchase in small quantities than sell to consumers.
Some firms advertise about their goods in newspapers or in other ways. Customers place their orders by post. Out of all these agencies, the most active and efficient agency is that of travelling agents who do a lot of propaganda for their goods. Actually it is these agents who create new markets for products of Aligarh electrical industry. But there are some defects in the actual working of this mechanism. They are not always trustworthy. Misrepresentation, breach of contract, fraud and deception are very often done by these middlemen.

In this way, we find that most of the share of total sales is sold through these intermediaries. This increase price superficially very high above the actual cost. The operation of too many middlemen raises cost of distribution considerably. This fact can be explained by the following table.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Types of middlemen</th>
<th>Cost or purchase price</th>
<th>other expenses</th>
<th>Total per cent</th>
<th>Profit selling price</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Producer</td>
<td>100</td>
<td>-</td>
<td>100</td>
<td>12.0</td>
</tr>
<tr>
<td>2.</td>
<td>Supplier</td>
<td>112</td>
<td>10</td>
<td>122</td>
<td>10.0</td>
</tr>
<tr>
<td>3.</td>
<td>Agents</td>
<td>134.2</td>
<td>1</td>
<td>135.2</td>
<td>6.0</td>
</tr>
<tr>
<td>4.</td>
<td>Wholesaler</td>
<td>143.312</td>
<td>3</td>
<td>146.312</td>
<td>8.0</td>
</tr>
<tr>
<td>5.</td>
<td>Shopkeeper</td>
<td>158.017</td>
<td>3</td>
<td>161.017</td>
<td>6.0</td>
</tr>
<tr>
<td>6.</td>
<td>Consumer</td>
<td>170.678</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Industries Office and Personal Investigation.
The above table shows that an article produced at Rupees 100 in the factory passes through different middle hands till sold to the consumer at a price as high as Rs. 170.0. This brings out the middlemen's charges to 70 per cent but in some case it is far more than this.

The most unfortunate thing is that electrical producers are not fond increasing selling costs. A very small amount is spent on advertisement and on propaganda. At the present moment, where there is too much of propaganda, firms do not spend money. They do not see the ultimate results of expenditure on propaganda.

In the last few years the sale of electrical good have registered a rapid increase:

<table>
<thead>
<tr>
<th>Assessment Year</th>
<th>Amount of total sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>1959-60</td>
<td>25,53,891</td>
</tr>
<tr>
<td>1961-62</td>
<td>30,34,219</td>
</tr>
<tr>
<td>1962-63</td>
<td>32,86,312</td>
</tr>
<tr>
<td>1963-64</td>
<td>54,58,925</td>
</tr>
<tr>
<td>1964-65</td>
<td>56,45,672</td>
</tr>
<tr>
<td>1965-66</td>
<td>42,89,421</td>
</tr>
<tr>
<td>1966-67</td>
<td>46,23,865</td>
</tr>
</tbody>
</table>

Source: table prepared with help of District Sales Tax Office and personal investigation.
Disposal of Output

Of the entire output, a small portion is unavoidably 'wasted' in the process of manufacture and the handling of the product. Some part of the output is sometimes used in the production unit itself. Again, in case of certain firms, a small portion is disposed of as samples, etc., for sales promotion. In this industry, the use of samples as a sales technique is growing in importance.

Table No. 16

Distribution of Sales according to the type of consumers

<table>
<thead>
<tr>
<th>Groups</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>All groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household</td>
<td>75,000</td>
<td>9,35,376</td>
<td>12,54,489</td>
<td>24,66,865</td>
</tr>
<tr>
<td>Small Scale Industries</td>
<td>3,15,000</td>
<td>5,85,000</td>
<td>75,600</td>
<td>9,00,000</td>
</tr>
<tr>
<td>Large Scale Industries</td>
<td>6,10,000</td>
<td>16,48,000</td>
<td>1,26,900</td>
<td>12,58,000</td>
</tr>
<tr>
<td></td>
<td>10,00,000</td>
<td>21,63,376</td>
<td>14,56,489</td>
<td>46,25,865</td>
</tr>
</tbody>
</table>

Source: Table prepared with the help of persons engaged in industry.
The biggest consumers of the products are services of industries surveyed are households. The cottage workers of Group A, also produce for small scale as well as large scale establishments of town.

Table 17 shows distribution of output according to type of consumers and their destination.

The output of Group A is observed within Aligarh. The major portion goes to large scale establishments. Sale of Group B, to small scale industries is more in Aligarh than outside. This consist not of finished products but of parts which these manufacturer purchase from each other.

Rigidities in marketing system:

a - Lack of Publicity and Propaganda:

Modern industries rely no much on publicity and propaganda and heavy expenditure are made to make way for their products. But in case of Aligarh electrical units, we don't find any use of leading magazines, journals and newspapers in this respect. Most of them are illiterate and conservative and hesitate in spending any additional amount over cost of production.
<table>
<thead>
<tr>
<th>Group</th>
<th>Inside Aligarh</th>
<th>Outside Aligarh</th>
<th>Total</th>
<th>Inside Aligarh</th>
<th>Outside Aligarh</th>
<th>Total</th>
<th>Inside Aligarh</th>
<th>Outside Aligarh</th>
<th>Total</th>
<th>Inside Aligarh</th>
<th>Outside Aligarh</th>
<th>Total</th>
<th>All Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Households</td>
<td>75,000</td>
<td>-</td>
<td>75,000</td>
<td>2,24,400</td>
<td>7,10,000</td>
<td>9,35,376</td>
<td>1010550</td>
<td>445939</td>
<td>1456480</td>
<td>1309950</td>
<td>1155939</td>
<td>2466865</td>
<td></td>
</tr>
<tr>
<td>2. Small Scale Industries</td>
<td>3,15,000</td>
<td>-</td>
<td>3,15,000</td>
<td>3,86,800</td>
<td>1,98,200</td>
<td>5,85,000</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>701800</td>
<td>198200</td>
<td>90,000</td>
<td></td>
</tr>
<tr>
<td>3. Large Scale Industries</td>
<td>6,10,000</td>
<td>-</td>
<td>6,10,000</td>
<td>3,11,000</td>
<td>3,36,000</td>
<td>6,47,000</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>921000</td>
<td>336000</td>
<td>1257000</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>10,00,000</td>
<td>10,00,000</td>
<td>9,11,200</td>
<td>12,44,200</td>
<td>21,67,376</td>
<td>10,10550</td>
<td>1456480</td>
<td>2932750</td>
<td>1690139</td>
<td>4623865</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Personal Investigation.
b - Lack of Marketing Spirit:

It is seen that in the same market sometimes many units to compete for the sale of their products. A new tendency has developed in recent times, workers produce some parts at their homes in addition to factory work and they go to nearby market i.e., Delhi. In Delhi, the businessmen well aware of the fact, that the seller is evading taxes, pays him a very insignificant amount. This result in wastage of resources and emergency of these people. But it also effects sales of other units who have to pay taxes also and consequently their price is likely to be higher than that of these theft sellers.

c - Lack of Standardisation and Dishonesty:

Characters of Deceit:

This results in low orders for electrical produce of Aligarh. Products are not standardised and buyers have doubts at the time of taking a decision. Moreover the business confidence which is so essential for the reputation in market is also damaged by such factors. This relates to supply of low grade goods and less weightage etc.

Suggestions

These results in low order and reduced sale of electrical goods. If proper arrangement can be made than increase in sales can be hoped. Some measure are suggested blow:-
i - Standardisation:

There is a need of laying down certain measures of quality control and specification of designs. Absence of suitable grades in electrical products make it impossible for the buyers to place his confidence in the products. It also stands in the way of obtaining proper financial aid with a view to wait in the hope of rising prices. In the absence of reliability, marketing becomes really difficult.

ii - Educational Drive:

The persons engaged in electrical goods production should be given commercial training. A powerful drive by way of advertisements, trade delegation, commercial mission and business dm trips are the first essentiality.

Some foreign markets have already been taken up and for the exploration of new markets, the producer are of the view that they should get some opportunities of knowing the actual preferences of foreigners and their real nature of demand.

For stimulating and attracting internal demand, museum and exhibitions can help a lot. Results of past gatherings have proved quite successful.
Marketing problem if solved and adopted of between methods will help a lot. Strong measures should be taken for wide publicity of goods produced in Aligarh. This would enlarge market. Industrialists should also care about long run effects of their conduct on market reputation. Confidence will attract buyers.

Performance of the Industry:

As far as the main economic indicators show the Electrical Goods Industry at Aligarh is prospering. Total investment in the industry has been increasing. Production capacity of the industry is also increasing and most of the firms plan to expand further in the coming year. The number of firms is on increase. About 15 new units have come in operation between the period 1962 to 1968. Capital investment of these firms vary from 10,000 to 150,000. It is only due to high margin of profit that new entrants are coming in and not only this, these new units are improving their position inspite of competition from the well established firms operating relatively on a larger scale in this industry at Aligarh. New entrants are able to stay by reducing their profit margin and
selling at lower prices than those of old units. In this way they have captured markets from old firms.

The following table shows the increase in total capital investment and total sales of some of the selected firms during the last five years.

Table No. 18
Total Capital Investment of Selected Firms

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1961-62</td>
<td>2,88,734</td>
<td>-</td>
<td>42,829</td>
<td>70,000</td>
</tr>
<tr>
<td>1962-63</td>
<td>3,75,236</td>
<td>-</td>
<td>46,644</td>
<td>75,000</td>
</tr>
<tr>
<td>1963-64</td>
<td>4,89,456</td>
<td>30,262</td>
<td>55,725</td>
<td>85,000</td>
</tr>
<tr>
<td>1964-65</td>
<td>5,55,239</td>
<td>40,694</td>
<td>62,568</td>
<td>1,00,000</td>
</tr>
<tr>
<td>1965-66</td>
<td>7,68,954</td>
<td>55,484</td>
<td>74,945</td>
<td>1,20,000</td>
</tr>
<tr>
<td>1966-67</td>
<td>8,74,204</td>
<td>60,000</td>
<td>85,903</td>
<td>1,50,000</td>
</tr>
</tbody>
</table>

Table No. 19
Total Sales of Selected Firms

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1961-62</td>
<td>34,6542</td>
<td>-</td>
<td>50,24350,243</td>
<td>50,24350,243,000</td>
</tr>
<tr>
<td>1962-63</td>
<td>4,24,643</td>
<td>-</td>
<td>60,345</td>
<td>95,000</td>
</tr>
<tr>
<td>1963-64</td>
<td>5,37,594</td>
<td>40,203</td>
<td>68,642</td>
<td>1,00,000</td>
</tr>
<tr>
<td>1964-65</td>
<td>6,45,854</td>
<td>52,486</td>
<td>75,294</td>
<td>1,20,000</td>
</tr>
<tr>
<td>1965-66</td>
<td>8,01,956</td>
<td>72,529</td>
<td>84,875</td>
<td>1,70,000</td>
</tr>
<tr>
<td>1966-67</td>
<td>1,01,273</td>
<td>80,943</td>
<td>94,364</td>
<td>1,90,000</td>
</tr>
</tbody>
</table>
Both tables indicate gradual increase in capital employed and total sales.

The future Expansion Programmes:

1. Verma Electrical Co. - shift to industrial Estate with double capital investment.

2. Star Electric Co., - shift to industrial estate, with an extension programme of 8 thousands.

3. Asia Traders - heater plant

4. Liberty Electricals - Production of brass brackets.

FINDINGS OF ESPECIAL SURVEY OF 25 FIRMS:

The answers are (percentages) out of 25 total figure.

1. What has been the behaviour of your product? Over the last three years (1965, 1966, 1967)
   
   Rising: 90 per cent
   Stagnant or falling: 10 per cent.

2. What has been margin of profit of your investment.

<table>
<thead>
<tr>
<th>Margin of Profit</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 5 per cent</td>
<td>nil</td>
</tr>
<tr>
<td>5 - 10 per cent</td>
<td>18 per cent</td>
</tr>
<tr>
<td>10 - 15 per cent</td>
<td>57 per cent</td>
</tr>
<tr>
<td>15 - 20 per cent</td>
<td>25 per cent</td>
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<tr>
<td>20 - 25 per cent</td>
<td></td>
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<tr>
<td>30 - 35 per cent</td>
<td></td>
</tr>
</tbody>
</table>
3. Has your production ever fell since installation (except 1962 and 1965).
   No ---- 75 per cent  yes  25 per cent

4. Did you extend capacity in last two years?
   Yes  66 per cent
   No  34 per cent

5. Do you plan to expand your investment in next year
   Yes  67 per cent
   No  23 per cent
   diversify 10 per cent

The above two tables and especial survey stands to justify our statement on the performance of this industry. Total investment and total sales are increasing. Profitability of investment in this industry seems to be higher than alternatives at hand. However, not only the profits of the industry are ploughed back into it, fresh capital is being attracted. In a place where sources of capital supply are almost nil, the expansion can be done only by employing back profits, and this mean that profits are in big amount. Many new units have consolidated their position in a short time and many of them are going to expand their plant.
REPRESENTATION OF NET PROFIT OF ELECTRICAL PRODUCTS
CHAPTER VII

STATE IN RELATION TO INDUSTRY

In the age of economic planning, Government acts as the torch-bearer in the formulation of various targets to be achieved both in the private as well as in the public sectors. A modern welfare state can do a good deal of work for the development and growth of the industries of the country. It helps them in a wide variety of ways viz., by financial help as it provides capital to the industries; by way of scientific research as it provides technical help; and by fixing standards it facilitates in marketing; etc. In fact, the state in intervention in the economic field has become almost necessary in the present days of economic planning.

The state has provided a number of facilities for the growth and development of industries some of which are as follows:

- Loans and grants
- Training and Technical Assistance
- Help in the procurement of raw materials
- Labour welfare measures

A brief description of the schemes undertaken in the above fields is given as follows:-
A - Loans and Grants Scheme:

The scheme of financial assistance to small scale industries was started in the year 1948, and since then, has been providing assistance to individuals, co-operative societies and other registered bodies to help expansion and further development of small scale industries. Under the present system, loans are available in the following three ways:

1) Loans for projects costing not more than ₹.10,000/- are available at district level from out of the funds placed at the disposal of Divisional Commissioner. These loans are sanctioned by the District Magistrate, on the advice of Distt. Industries Committee.

2) Loans for projects costing more than ₹.10,000/- and loan amount not exceeding ₹.15,000/- are sanctioned by the State Loans and Grants Committee which meets under the presidency of the Minister for Industries.

3) Loans exceeding ₹.15,000/- and up to ₹.1,00,000/- are sanctioned and disbursed by the J.P. Financial Corporation on the recommendation of the Director of Industries on a slinking rate of interest from 5 to 7 per cent. The corporation was established as a state owned private limited company in 1961 with an authorized capital of ₹.5/- crores, but as on 31st March 1967, it is
corporation has granted the loans of Rs. 7,50,000 to 17 industrial units of all over district.

The loans are repayable in 10 easy instalments over six months from the date of second anniversary of the date of advancement of loan. Besides loan, grants are given to extraneous of recognized institution for various crafts for purchase of tools and equipment up to Rs. 2000 in individual cases and Rs. 6,000 to co-operative societies.

TRAINING AID AND TECHNICAL ASSISTANCE

1) Small Industries Extension Service Institute.

The Government of India, under the Ministry of Commerce and Industry, set up 4 Regional Service Institutes and 15 other major branch institutes. 59 Extension Service Institutes have been set up in various places and one of them was set up in 1959 at Aligarh. This institute helps the artisans to select a suitable industry to draw up a complete scheme and to purchase the machinery needed. It also advises about improved technical processes and use of modern machinery and equipment. It has a "Machine Workshop", formerly known as Government Metal Working School. It was started by the J.P. Government in 1928, it has played a very important part in improving skill in various branches of lock making.
establish nr, engraving, etc. In May 1959 this workshop
has been equipped with modern machines.

This Institute offers training in various jobs.

ii) Industrial Training Institute Allahabad:

A similar Institute has been started from Jul 1956, by
the Central Government in a "sector" near the Exhibition Ground.

For rural industrial development, Directorate of
Industries U.P., is providing all necessary help in the
procurement of raw materials from various sources for small scale
units. Decentralisation of distribution of various raw
materials was also enforced in respect of certain items like
cement, jute sheet, jute sheet cuttings, tile block and niche
etc.

Facilities to Workers:

Labour welfare centres: Two class labour welfare centres
are opened by the Government in Allahabad. All the labour
welfare Centres are contributing in the welfare of the
laborer of various industries in Ali-ur-Rah. These centres provide 
free medical aid to the labourers and their dependents also. 
A detailed account of it has been given in chapter entitled 
"Labour Conditions".

A CRITICAL APPRAISAL OF STATE POLICY

The central and state Governments have taken sufficient 
interest in the development of electrical "tools industry. They 
have provided technical and financial help, suitable sites in 
industrial estates on easy rent, raw materials and marketing 
facilities, still there are many more to be done by the state.

The assistance provided by the State in various forms is 
not only inadequate, but the much needed through which it is made 
available is complicated and dilatory. The statistics maintained by 
various Government offices are incomplete and not up-to-date.

SUGGESTIONS:

I, the foregoing gaps to be bridged, several steps will have to 
be taken, some of which are as follows:-
i) Development of Specialised Institution for: the supply of raw materials and sale of finished products:

Supply of raw materials is an important matter and requires immediate attention. We have to arrange for the regular supply of scarce raw materials of good, quality and sale of finished products. The only way to solve the problem is collective and co-operative organisation of industry for purposes of purchasing raw materials like Audyato Kalabhar Sahakari Saniti Ltd., formed by the artisans of lock industry. The society supplies to its members the various parts of lock, such as plates, shackles, etc. etc. control prices. There is a need of several organisations of this type in industries for the supply of raw materials and the sale of finished products.

ii) Expansion of Technical Education:

The future course of development of electric good industry depends to a great extent on the expansion of the facilities for education and research. It requires both an increase in the number of these institutes as well as an improvement in the working of the existing institutes. Introduction of training in new trades is sure to be a long way in involving the lot of the average worker.
iii) Provisio” of Finance: (Details are given in Final chapter).

iv) Relief in Taxes:

Relief in taxes is very necessary to promote industrial development. In this context Octroi duty should not be charged on raw materials obtained from outside the district. Similarly tax concession should be given to new factories or to the production of new items by the existing industries.
CHAPTER - VIII

FINDINGS AND SUGGESTIONS.

AN OBJECTIVE ANALYSIS OF THE WEAK SPOTS OF INDUSTRIAL STRUCTURE OF ELECTRICAL GOODS INDUSTRY

Despite state aid and advantages of industrial resources the Electrical Goods Industry is suffering from a number of problems some peculiar to individual manufacturing units while some other of a general character which stand in the way of industrial development. A brief narration of these will be helpful in a critical appraisal of the subject under study:

a) Lack of Proper Organisational:

Most of the work is conducted on a cottage scale. Artisans produce for suppliers. Suppliers provide them with money and material. Artisans sell their goods daily at cheap prices. They remain at the sweet mercy of suppliers. This results in waste of resources and low quality. The labour of artisans is not fully rewarded.

In case of concerns we find employment of non-regular workers. The manufacturers of electrical goods give the work to workers at their residential houses. In this state of tough competition the labourers have to work hard to get even the contracts and again remaining without employment after the contract is over. By doing so the clever factory owner even escape the application of Factory Act upon themselves and in this way the exploitation of the workers is being carried out by these big manufacturers. Workers remain busy in work for even more than 12 hours in a day which results in loss of the efficiency of
there e workers in the lon run.

The sad story does not stop here. There are a large number of manufacturing concerns, who produce electrical goods secretly. They are not registered, by escaping from sales tax, they supply goods at cheap rates. They also do not bother about quality, as they are not known firms, which may care about its prestige. Such type of fictitious firms have become a source of bad reputation of Aligarh Electric Goods Industry throughout India.

b) Outdated Technique of Production:

Much of the productive equipment of Aligarh Electrical Manufactures is old, worn out and outdated. The result is high cost on one hand, and on the other side it is not possible to produce latest designs and compete with others. Lack of general and technical educational effects efficiency of workers which affects quality of production. Workers have a narrow outlook full of conservatism and dislike to learn the up to date scientific methods of producing electrical goods. Workers do not know anything about latest designs of the goods and the same old and worn out methods and designs are in use and are repeated again and again which make the markets dull for goods. Even the big manufacturers try to copy some articles which are famous in market and they do not try to invent new designs and articles produced by their intelligence. This is all due to lack of general and technical knowledge amongst producers as well as workers.
of Aligarh Electrical Goods Industry.

c) Shortage of Capital Requirements:

Capital is said to be the bone of an industry. But in case of this industry the very bone seems to be very weak. There is no proper agency to provide capital to needy persons. The rules of J.P. Financial Corporation and J-P Industries Directorate for giving loans to small industries are very complicated, difficult to be fulfilled and likely to cause undue delay with the result that it hampers the progress of industry. Whether it is a Government agency or a bank, poor artisans are asked to provide tangible securities which is outside of their capacity.

New comers do not get an lift. Those who have sound footing in society get loans easily. But those persons who really need money in the initial stages are not helped. New entrants are thus discouraged the major portion of earnings of small producers is paid to Nahajan or Commission agents in form of interest. They are famous for their unreasonable terms.
d) Scarcity of Raw Materials:

An equally great handicap from which the artisan suffers is an adequate and regular supply of raw materials, which increases the scope of business and increases profit margins. But in case of this industry, the process of distribution of raw materials is not satisfactory. It is difficult for an artisan to acquire sufficient quantity of required raw material at the appropriate time. In case of these materials, whose quota is granted by Government, it is sanctioned to big firms and takes a very long time to get deliveries. Those who are not sanctioned quota by Government fulfill their requirements through black-market.

Not only this, sometimes, it is seen that small producers do not get raw materials as it is sold only in large quantities which is beyond the purchasing capacity of a small producer. Large dealers like "H.Istan Illuminium Co.," deal with big concerns. This results in trouble to small manufacturers and to rise of un-social activities. It is seen that some parties having a semi credit position and also in electric goods purchase raw materials in quantities and then sell it on higher prices to other producers.

There is discrimination to those manufacturers who have no firm footing in society. The newly-enthusiastic entrepreneurs do not get sanction. Those who have relation and can please officers are allotted raw material quota and capital. There is no criterion to know the actual need, so, to be selected. Moreover, quotas once
allotted are not checked as to where it has been used.

e) Defective Marketing of System:

The only means for disposal of electrical goods from its manufacturing place is middlemen. They go from place to place conveying particular goods and creating new markets, but they charge a high percentage of commission and are indirectly responsible for raising the price of the finished electrical product. Sometimes artificial agents also cheat customers by getting advances booked in favour of a bogus firm. This kills confidence of customers particularly in Madras, Madhya Pradeh etc. It is also noticed that agents of Aligarh are not well versed in English. There are only a few persons who can speak in English and can convince customers in South and in Bombay which can absorb a major portion of total production.

Modern methods of advertising and propaganda are not adopted. No expenditure is incurred on popularising goods through newspapers.

The transport also presents some difficulty in the successful marketing of electrical goods. Railways are preferred to road transport by the electrical dealers of Aligarh. Despite the superiority of railway transport, booking is closed for several places. This results in over-projection and blocking of capital for a certain period. Proper facilities for despatch and loading etc. etc. are also not available in Aligarh Railway Station. Sometimes it has been observed that the purchasers refuse to take delivery of goods on account of late despatch.
of goods from Railway station. Railways maintained their respect in the market produce of electrical goods have to allow special concession for the delay. All this reduces of marginal profits.

\[\text{e) Dearth of Managerial and Technical Personnel.}\]

The most striking defect is that majority of electrical goods manufacturers have no knowledge regarding the technicalities of their industries. Very few of them have had the benefit of technical training. The bulk of them are merely of the merchant class, and, as such, it affects the efficiency and cost of production.

\[\text{f) Heavy Burden of Taxes:}\]

Excessive taxation is killing incentive of producers and encouraging corruption. High rates result in rise in prices. It is interesting to find double taxation in all - rh at the time when all - rh Electrical manufacturers face a competition with manufacturers of Delhi and Punjab, who are subjected to single taxation. The transactions between merchant and dealers are taxed here. Tax should apply to all commodity and not at different points in its production, i.e., in case of shale carrier, tax is payment
arises at several places. First when the manufacturer purchases Gloss from Premier Enamel Co., (Late is 10 per cent) then second time when the manufacturer purchase aluminium sheets and so on. Even if one manufacturer makes sales to another manufacturer within the state it is taxed. But it is not so in Delhi and Punjab. The result is the goods cost more here.

There is a vast hue and cry against the inspectors of Sales Tax Department. It is said they are not given sufficient amounts as bribe then they become a problem to poor manufacturers. Those who can please them save sufficient amounts from taxation.

There are also complaints against Electricity Department for its irregular supply which causes great trouble to manufacturers.

The growing labour movement is not satisfactory. A tendency appears to come from all sections that is of not worth at heart. There has been no major strike in electrical goods industry in recent past but the labourer co time to pose troubles to their employers.

The rise in dissatisfaction in the labourers caused by rising prices has its impact on workers in electrical goods industry as well. Not being able to get wages which could cater in with the rising cost of living they express their dissatisfaction by adopting slow tactics.
RECOMMENDATIONS FOR THE REVIVAL OF VARIOUS SMALL INDUSTRIES

1. Improvement In Organisational Set-up:

The manufacturer should be induced to carry production on basis of division of labour. There should be introduction of scientific management. It will reduce costs and will help in widening market for products of Electrical Goods Industry.

2. Formation of Co-operative Societies:

Industrial Co-operative movement can be suggested in spheres of distribution and procurement of inputs for the improvement in the indecisive wokers existing in tyranny position for these wokers of electrical goods Industry by now are independent, but to some extent and in certain fields are totally dependent on middlemen dealers. For example, they have to resort to them for obtaining their raw materials. Furthermore, the so-called independent workers are forced into agreement to sell of their finished goods to these dealers at prices somewhat lower than ruling prices. All these difficulties will continue until these workers do not form themselves into a society or unity. If they form such organisation they will have to try lower prices for raw materials and will get higher prices for the finished goods.
Scarcity of capital presents many difficulties before independent producers. It is therefore very important to supply requisite financial help. The Industrial Co-operative Societies should form an allied co-operative Credit Society, which should function as financier. The credit society should borrow funds from the District and Provincial Co-operative Banks on clean and easy terms, and help its members by advancing them under similar terms.

The idea of co-operation has been helpful for the purpose of removing defects of small units run by petty producers on a cottage basis. It is hoped that manufacturers of Aliyar's Electrical Goods can also be benefited by working on these lines.

3. Quality Marking Scheme:

The products produced by this industry are of various kinds. Every firm and factory manufactures varieties and designs of product of its own choice because everyone wants to dispose of its articles in huge quantity in consuming centres, at the cheapest rates. This cheap price leads to the inferiority in the quality of the product. The standardisation in this industry does not exist, therefore, it is a permanent need in this industry to regulate the quality making scheme, or the sale of standardised products. The whole industry should be covered by the quality marking scheme and all the firms and factories should be compelled to join the scheme.
technical experts and examiners should be appointed under this scheme who would supervise and examine the workmanship, manufacturing, and dispatching operations of firms and factories. They will try to detect and check the deceptive practices of the workers and traders of electrical goods industry of Bihar. Under this scheme, the organization in Industry will not remain as such a hodgepodge and in haphazard condition as it is today. The co-operative societies should be forced to carry out principles of cooperation so that the scheme of quality marketing may be possible and the deterioration of quality of electrical goods be restricted.

4. General Moral and Technical Education of Workers:

Success of electrical goods industry is largely dependent on the proper development of general and technical education of workers. An improvement in this economic condition, their efficiency, which has a considerable influence on their output and earnings, must be improved. What has a direct effect on the efficiency of craftsmen is the promotion of industrial training and vocational guidance. In both these workers of Electrical Goods Industry are notoriously backward. In fact, carefully planned technical education can provide a satisfactory solution for many of handicaps of Electrical Goods Industry.
To arouse the enthusiasm of labour for the small industries, it is essential that they should be paid according to their technical advancement - degree by degree and stage by stage.

Industrial Training Institute Ali arh should arrange training in more processes. At present it is providing training in three processes. A more responsible man should be made incharge of Small Scale Industries Service Institute. The activities of this centre should be enlarged. Mobile training centres should be arranged.

There should be some sort of moral education to workers to remind them frequently over their duty towards industry and nation. Jarslessness is on increase. This should be checked and labourers should not be free to indulge in destructive activities which may lead to situation of Cherno.

5. Collective And Publication of Statistics:

Lack of adequate statistical and trade information is admirably a standing difficulty in an industry's development. In case of Electrical Goods Industry, the data maintained by various departments is not sufficient. These departments i.e. District Industry's Office and Planning Office etc., should activise their activities.
6. **Removal of Duplicate Taxation:**

Tax should be levied only once i.e. either at the stage of purchase of raw materials or at the stage of sale of finished goods so that the industry may not be unduly burdened. The various Municipal taxes should be examined and thoroughly watched by State Governments and those found detrimental for the development of industry should be scrapped.

The state should try to prevent the exploitation of workers which is now on increase and is done by the activities of large scale manufacture, e.g., at present, do not come under the jurisdiction of the 'actor, Act of 1943. It has been seen that workers work even on holidays besides the door of the factories to earn more and more remuneration. For all these reasons it is advocated that State must come with its regularity measures to the help of workers.

**PROJECTS OF FUTURE DEVELOPMENT**

There are very good prospect for Electrical Goods Industry of this to develop in near future because of existence of required resources and increased demand for its product. With expectation of bumper crop, the industry will be faced more demand from rural areas and industrial centres. Not only this but with the finalisation of existing extension programmes of industrialists, India will earn a name as Electrical Goods producer Centre not only in country but even in foreign lands.
PROVISION OF CAPITAL

In the sphere of industrial credit the concept of security needs to be redefined. Credit institutions should review the types of security that they consider adequate and thereby widen the range of their activities. Secondly, they may in concert with each other take a measure of risk in extending credit provided the losses arising therefrom are, to some extent, guaranteed by a special institution or Government.

In order to work it properly, the commercial banks will have to re-orient their ideas about the type of goods that can be accepted as realisable security and assess the risk of transaction on the basis of performance and standing of a unit rather than purely on how much of the security it offers can be realised immediately and without loss.

Banks will only not have to investigate the personal integrity of the borrowing party but will also have to make an overall appraisal of the competence of the management and of the financial soundness and earning power of the undertaking. Banks will have to take a long-term view about the prospects of a borrowing unit and of the industry to which it belongs for in a developing economy problem of production and marketing are vitally related to the problem of credit, whether short or long term. The banks
will, therefore, require information in most of the aspects accounting, technical, economic and human.

It is true that these units suffer from various handicaps like lack of equipment power, necessary raw materials, marketing and finance and they do not seem credit-worthy because their position is highly unstable. Merely provision of finance to such units would not be sufficient to make them work as economic units. In many instances lack of finance is the result, and not the cause, of other difficulties. Unless these difficulties which may relate to lack of equipment or marketing facilities or inefficient management are removed, financial assistance alone may not be fruitful. The problem in essence is to make these small industrial enterprises credit-worthy. It will therefore, in the first instance be necessary to grade different units requiring financial assistance as (1) credit-worthy (b) potentially credit-worthy and (c) non credit-worthy. For this purpose specific criteria should be laid down. Generally, an industrial unit would be credit-worthy provided it is well-equipped, is economically managed, has a margin of profit and its proprietors are men of integrity. A potentially credit-worthy unit would be one in which most of the factors relating to production and management, technical personnel and marketing arrangements, that would make the working of the unit successful, are present, with the exception of one or two factors, say finance and equipment the provision of
which would render it an economic unit. The third category consists of the misguided ventures which may be allowed to run their course. We must look to the three principal elements in an undertaking. (1) the entrepreneur or craftsman, (2) his tools and equipment, and (3) the job he is doing, and arrive at a judgement whether the enterprise has either already succeeded or if it is at least likely to improve its prospects if the required financial or non-financial aids are forthcoming.

The general difficulty arises from the lack of objective material on the basis of which the element of risk involved in each proposal can be assessed. For instance, it is sometimes found that the prospective borrowers do not maintain proper accounts either on the basis of individual jobs undertaken or for the different products manufactured by them, nor are some of the accounts properly audited so as to be dependable. It is true that a very reliable person is highly qualified, knows his job, but there should be objective proof to show that his sales have been maintained or are progressively rising and that he is working at a fair margin of profit and is likely to maintain it in future.

Again, there is a firm which requiring financial accommodation for building factory premises, it is doing well but there are no audited accounts to show that the record of past earnings was satisfactory.
These difficulties can be overcome by requesting the prospective borrowers to have their accounts properly organised and duly audited by qualified accountants; most of them are willing to comply. There are some units, however, that have not got the accounts personnel and which cannot afford to have their accounts audited because it is expensive. For such units, long term financial institutions or departmental agencies should engage their own internal auditors who would advise the prospective borrowers how to maintain their accounts in a simple manner, and secondly would carry out the necessary audit checks to test the earning capacity of the units concerned. The lending institution or department must satisfy itself that the net value of security, offered is adequate, the concern has the prospect of utilising financial assistance fruitfully, the party is reliable and credit-worthy, and the unit will be in a position to service the loan and repay it by agreed instalments. So far as the small industrial undertakings are concerned, the officers of the lending institution would look to the proprietor or the key man in the undertaking and test his attitude as a borrower. This is a crucial test because in every type of lending it is essential to know that the borrowers are genuinely concerned in utilising the funds for the purposes for which they are given and further that they are anxious not only to service the loan but to repay the principal amount of instalments. The problem affecting
the unorganised segment are difficult but they have to be faced, because unless the small units are properly assisted, it will not be possible to organise, expand and develop this sector of our industrial structure. They are in need not only of financial assistance but of assistance and advice on other matters, technical and managerial. For instance, X is producing certain articles which are mainly produced by hand, he is now in need of suitable machinery and wants working capital. Taking all factors into account he deserves help because he has created a good market and if he gets the machinery he wants, will be in a position to produce superior quality goods and improve his earnings. N, a proprietary concern, was producing metal utensils and suffered heavy losses, but it has since changed its lines of manufacture with the result that its earnings have improved; it wants financial assistance for the acquisition of additional machinery and working capital. It has been amenable to suggestions about changing the lines of manufacture and the employment of suitable technical personnel. With these changes, there is every prospect of its using effectively any financial help that may be extended to it. Further, there is T who has started a new industry which is the first of its kind and requires financial assistance to establish it. Before this can be given, certain conditions must be fulfilled. There should be a minimum share capital. Arrangements for adequate working capital have to be made, the technical soundness of the whole scheme must be examined and the prospects
of its earning capacity should be assessed. Investigation on all these factors having proved satisfactory, the loan accommodation can be safely given.

In case where manufacture and trading districts exist, the lender should ask that the two activities should be kept separate and the financial accommodation should be utilised only for the manufacturing activity.

It is essential to insist that the small entrepreneurs know the job they are doing, have experience of manufacturing these particular products and have prospects of marketing them. In assessing the soundness of a loan proposition, therefore, what is needed is an overall approach and if the usual criteria are satisfied the financial assistance should be given; but in cases where the units concerned have no prospect of improving their position, no useful purpose would be served by throwing good money after bad. There are quite a number of units, however, which may be brought under an "Improvement programme" and special grants should be allocated to make them efficient and economic units so as to deserve institutional credit.
PROSPECTS OF FUTURE DEVELOPMENT

Seeing the availability of required resources and increasing demand for its products it can be said that the future chances of Electrical Goods Industry of Aligarh are bright. With the present bumper crop, the rural economy will revive and there would be large increase in demand for electric goods because villagers are to be electrified. Not only this but after the finalisation of existing expansion programmes of various firm, Aligarh shall earn a name among ranking electrical goods producing centre not only in the country but even in foreign lands.
APPENDIX - I

Name of Important Electric Goods Manufacturing Firms and their Addresses:

1. Imperial Electric Trading Corporation, Ashok Building, G.T. Road, Aligarh.
3. Liberty Electrical, C-3 Industrial Estate, Aligarh.
4. Verma Electric Co., Brajk Bhandar
5. O.D. Brothers, Sarai Din Dayal.
6. Star Electric Trading Co., Madar Gate
7. Indian Wire Products Private, Ltd., Premier Nagar
8. Nawrang Metal Industries, Mamu Bhanja.
10. Mitra Electrical, Dubey - Ka - Paro.
11. Light House Industries, Turkman gate.
12. The Best Company, City Fort
13. Mimal Industries, Kanungoyan
16. Universal General Industries, Turkman gate
17. Electro Traders, Sanicharipenth, Kutub Ki Sarai.
18. United Traders - Pathar Ke Market.
19. Bharat Electricals, Parao Dube
21. Sun Industries, Devorikapuri
24. Dalal Electricals, Premier Nagar
27. Prabhakar Industries, Jaiganj.
APPENDIX - II

BIBLIOGRAPHY

1. Agarwal, A.N. Industrial Problems of India.
2. Bryce M.O. Industrial Development.
3. Farooque, Q.H. Small Scale and Cottage Industries As a Means of Providing Better opportunities for Labour In India.
5. R.C. Saxena Labour Problems in India.

REPORTS AND GOVERNMENT PUBLICATIONS

5. Government Assistance to Industries of Aligarh District - Progress Report prepared by District Industries Office.
APPENDIX - III

FAMILY BUDGET OF A LABOURER OF ELECTRICAL GOODS INDUSTRY

1. Size of family
   No. of adult males 1
   No. of adult females 2
   No. of adult children
      male 2
      female 1

2. Monthly net income
   wages Rs.120.00
   wages of work of children 30.00
   Other sources 15.00
   165.00

3. Monthly Expenditure

   A - Sr.No. Item of expenditure quantity value
   1. Food grains
   2. Wheat 1 srs Rs.40.00
   3. Rice 4 srs 7.00
   4. Bajra 15 srs 16.00
   5. Pulses 3 8.00
   6. Spices - -
   7. Sugar or Gur 9 srs. 15.00
   8. Oil and Ghee
   9. Milk 4.00
   10. Vegetables
       15.00
       115.00

   B - Clothing
   5.00

   C - Home Rent and repairs.
   6.25

   D - Light and Fuel, Fine wood, Coke
   2.60
   2.50

...2...
Kerosene 2x89

E - Education. 3.60

F - Recreation and amusement. 13.55

g - Miscellaneous 2.90

Postage 3.50

Travelling expenses 4.25

Smoking. 5.85

Interest medicine etc. 5.85

165.00
APPENDIX
A SURVEY OF ELECTRICAL GOODS INDUSTRY AT ALIGADH.

1. General Information
   1. Name of the establishment
   2. Location
   3. Year of foundation
   4. Has the establishment any branches
   5. Is the establishment owned by
      (a) A single member of the family?
      (b) Two or more members of the family?
      (c) Family and others jointly?
      (d) Individuals who do not together constitute a family?
   6. Is work carried on at home?
   7. Is power used in production?

II. Capital Structure:
   Fixed capital (A) Land and Building.

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<td>(b) Inherited</td>
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<td>(c) Hired</td>
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<td>(4) If hired, monthly rent</td>
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<td>(5) Value</td>
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<td>(6) Initial value in Rs.:</td>
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<td>(a) if purchased, purchase price</td>
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<tr>
<td>(b) if inherited, estimated value</td>
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</tr>
<tr>
<td>(c) if hired, estimated value</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(7) Repairs and maintenance charges during the year 1.4.1967 to 31.3.1968</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(8) Depreciation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
9. (A) Power Equipment

| Type           | Item | No. of Year | 'V.-lue'  | Expect. | No. of 'V.-lue' | Net | R.-pairs Def. | Current | Replac. | Maintenance during Co.-
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>machi.' when</td>
<td>machi.' in</td>
<td>in</td>
<td>machi.' in</td>
<td>in</td>
<td>&amp; main.</td>
<td>&amp; main.</td>
<td>ers</td>
<td>tenant</td>
</tr>
<tr>
<td>1. Electric Driven</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>2. Steam Driven</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>3. Gas Driven</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>4. Oil Driven</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>5. Hand Driven</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>6. Total</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
</tr>
</tbody>
</table>

(B) Other Equipment tools and furniture details

(C) Working Capital (Stocks of raw materials including fuel.) As on 31st March 1966.

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Rate</th>
<th>Value</th>
<th>Item</th>
<th>Quantity</th>
<th>Rate</th>
<th>Value</th>
</tr>
</thead>
</table>

(D) Finished Products

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Rate</th>
<th>Value</th>
<th>Item</th>
<th>Quantity</th>
<th>Rate</th>
<th>Value</th>
</tr>
</thead>
</table>

C. (B) Working Capital (As on 31st March 1967.)

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Rate</th>
<th>Value</th>
<th>Item</th>
<th>Quantity</th>
<th>Rate</th>
<th>Value</th>
</tr>
</thead>
</table>

(D) Finished Products

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Rate</th>
<th>Value</th>
<th>Item</th>
<th>Quantity</th>
<th>Rate</th>
<th>Value</th>
</tr>
</thead>
</table>
1. Cash in hand
2. Loans and advances

III. SOURCE OF FINANCE:
1. Total Investment
2. Capital invested by proprietor
3. Share capital contributed by partners or other members of family.
4. Has any outstanding finance been obtained
5. If yes, from which source has finance been obtained

<table>
<thead>
<tr>
<th>Agency</th>
<th>Amount</th>
<th>Duration of Interest or Premium</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Government</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Bank</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Private individuals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Others (Specify)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. (a) Gross value of output during the year

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Quantity</th>
<th>Rate</th>
<th>Value</th>
</tr>
</thead>
</table>

(b) Potential Output

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Quantity</th>
<th>Rate</th>
<th>Value</th>
</tr>
</thead>
</table>
7. **Disposal of Produce during the year**

   (i) Sales to households

<table>
<thead>
<tr>
<th>Item</th>
<th>Inside Aligarh Qty.</th>
<th>Rate</th>
<th>Value</th>
<th>Item</th>
<th>Outside Aligarh Qty.</th>
<th>Rate</th>
<th>Value</th>
</tr>
</thead>
</table>

   (ii) Sales to Small Scale industries

<table>
<thead>
<tr>
<th>Item</th>
<th>Inside Aligarh Qty.</th>
<th>Rate</th>
<th>Value</th>
<th>Item</th>
<th>Outside Aligarh Qty.</th>
<th>Rate</th>
<th>Value</th>
</tr>
</thead>
</table>

   (iii) Sales to large scale industries.

<table>
<thead>
<tr>
<th>Item</th>
<th>Inside Aligarh Qty.</th>
<th>Rate</th>
<th>Value</th>
<th>Item</th>
<th>Outside Aligarh Qty.</th>
<th>Rate</th>
<th>Value</th>
</tr>
</thead>
</table>

---

**Labour Employed**

8. (a) *Types of Labour*

   1. (i) Owners
   (2) Family members
   (3) Hired Labour

   2. (1) Skilled
   (2) Craft Skilled

   (b) *Wages*

   **Particulars** | **Average Member Rate of wages** | **Wages paid**
   --- | --- | ---
   1. Workers employed daily
      1. Workers on piece rate
      2. On time rate
   2. Value of work given out
Cost of materials, fuel, electricity etc.

<table>
<thead>
<tr>
<th>Items</th>
<th>Unit</th>
<th>Quantity consumed</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Fuel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Electricity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Lubricants</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Other costs:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Containers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Packing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Advertisements</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Transport</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Sales Tax</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Other Taxes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Income Tax</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Rent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Interest</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
WTF/60

Water tight fitting is complete with glass & porcelain Holder suitable for 100 watts Lamp. The Reflector is made out of P. C. R. C Sheet and armature from cast Aluminium. Taped in 1/2"GI, 3/4" Or 5/8" Conduit. It is stove enamelled out side grey and inside white. Each piece packed in one Box.

All these Bulk Head fittings are made out of Cast Alum. fitted with porcelain Holders, Heat resisting glasses and finely stove enamelled in attractive colour. Each piece is packed in one line Board Box. These are suitable for 3/4" conduit or 1/2" G. I. Pipes and 60-100 watts Lamps.

Phone No. 880
Gram: "LIBERTY"

LIBERTY ELECTRICALS
C-3 INDUSTRIAL ESTATE ALIGARH. (U. P.)
The fitting is most elegantly made out of pressure casted ALUMINIUM and Nicely painted in anticorrosive grey stove enamel colour. It is fitted with a very fine heat resisting glass. It is supplied with 3 pin B. C. Porcelain or Goliath screw cap holder.

It is most suitable for street Lighting, Lawns, Parks, Bridges, Petrol Pumps, Work Shops and for so many such other purposes.

It is moderately priced than any other make.

The fittings No. MVL/T/801 is also made out of pressure casted aluminium and nicely painted in anticorrosive grey stove enamel colour.

It is complete with the best quality heat resisting glass 3 pin porcelain holder. It is also available in Side entry and in "Top and Side entry" both. It is suitable for 3/4" GI or 1" conduit pipe.

MVL/O/805 is made out of best quality ISI marked aluminium sheet and finely spun by the technically trained personals.

It is nicely painted in anticorrosive stove enamel colour grey out side and white inside.

It is complete with the best quality heat resisting glass supported by three fine brass springs fitted with 3 pin B C. porcelain holder.

It is suitable for 3/4" GI or 1" conduit pipes.
**L.M. POLE LINE HARDWARE**

**L.T. Shackle Insulators**
with Straps & Bolts
Sizes:
- 2"x2½"  LMHS-1
- 3"x3½"  LMHS-2
- 4"x4½"  LMHS-3

**Type LMHS**

**L.T. Pin Insulators**
with GI Spindles
Size: 4"x2½"

**Type LMHI**

**G.I. Stay Rods (LMSR)**
- 6' X 3/4"
- 6' X 5/8"

**Flap Insulators**
Size:
- 5"x2½"
- 4"x2½"
- 3"x1½"

**LMHP**

**G.I. Pins for H.T. Insulators**
Upto 22000 V

**LMHD**

**Disc Fittings**
FOR H.T. Insulators
Upto 22000 V.
L. M. AERIAL FUSES

L. M. Aerial Fuses are made out of vitreous porcelain with brass metal parts to give a trouble free service in following sizes:

<table>
<thead>
<tr>
<th>Type</th>
<th>LMHF 1</th>
<th>LMHF 2</th>
<th>LMHF 3</th>
<th>LMHF 4</th>
<th>LMHF 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amps</td>
<td>15</td>
<td>30</td>
<td>60</td>
<td>100</td>
<td>200</td>
</tr>
</tbody>
</table>

LMHFA

L. M. Aerial fuses made out of insulated board with Sturdy Bolts, Nuts & Washers of tined brass.

TYPE LMHF

L. M. STREET LIGHT FITTINGS

Are made to choice of customers in various designs and to suit individual requirements.

L. M. CABLE SOCKETS

L. M. Cable Sockets are made out of tined Copper Suitable upto 1000 Amps.

LINE MATERIAL CO. OF INDIA

(REGD. OFFICE 11/56 ORIGINAL ROAD. KAROL BAGH, N. DELHI-S)
D-7. INDUSTRIAL ESTATE.
ALIGARH.
MISRA'S ELECTRICAL LIGHT FITTINGS

No. 253

No. 254

MISRA ELECTRIC CO., ALIGARH, U.P.
FANCY CAST BRASS TABLE LAMPS

No. 534 0/ Each

New Type Complete 7/50 Each

T. L. Reflector Shade Complete 19/50 Each

No. S' Type 12/10 Each

Anypose Lamp Complete No. 777 & 666 2/50 Each

Anypose Table Lamp 24*336° Complete

No. 540 Calendar 10/8 Each
FANCY CAST BRASS TABLE LAMPS

No. 545 16/50 Each
No. 544 12/50 Each
No. 527 12/50 Each
No. 511 A Complete 60/50c
No. 543 CALENDAR 12/50 Each

No. 543 PHOTO 12/50 Each
No. 50270/50a
Flexible T. L. "B" 12" Small complete 50/50c
No. 551 72/50c
No. 518 84/50c