CHAPTER I

INTRODUCTION AND DESIGN OF THE STUDY

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1.1 INTRODUCTION

This chapter deals with a brief introduction about powerloom industry, its importance, statement of the problem, review of related literature, scope of the study, objectives of the study, operational definition of concepts, collection of data, sampling design and chapter scheme.

1.2 HISTORICAL DEVELOPMENT

A handloom needs 2 to 3 persons to weave 5 to 7 metres of fabrics per day. The earnings per day for an individual weaver is less when compared to powerloom weaver. Further the handloom weaver's health is affected because he has to work for more hours in weaving. This necessitated the invention of the powerloom.
The Industrial Revolution in England led for further advancement in looms with technological changes. ¹ Powerloom was invented by Dr. Edmund Cartwright in 1789. ² After that advancement in powerlooms was attempted by replacing shuttles. They are called as shuttleless looms or Automatic looms.

Powerlooms replaced the handlooms in the major part of the world in order to meet the ascending trend of the demand for fabrics. An individual powerloom weaver began to earn more as he is normally expected to operate two looms at a time. Powerloom saved the health of the weaver as he worked for lesser hours to produce the same amount of cloth produced in handloom. His energy was saved in powerloom.

Powerlooms were first established in India in Itchalkaranji of Maharashtra in the year 1904. ³ Powerlooms became popular all over India during the middle of the present century. Powerloom industry has developed mostly in the handloom centres because of the availability of trained labour in weaving. Traditional

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handloom weavers have shifted to powerloom industry. Most of the powerlooms have been installed by the middle class handloom weavers. They have installed second hand and discarded powerlooms at cheaper rates. Tamil Nadu state has also witnessed a high growth rate of powerlooms during the middle of the present century. Komarapalayam, a traditional handloom weaving centre has also developed into a leading powerloom centre in Tamil Nadu.

1.3 MEANING

Powerloom is a machine used to produce cloth in plain or tubler form. Powerloom is operated without the aid of human beings and run by steam, electricity and water power. It has a shuttle that refills automatically and moves as fast as 60 miles (97 Kilometres) an hour.¹

1.4 IMPORTANCE

In India textile production is done by three major sectors namely textile mills, powerlooms and handlooms. The tex-

tile mills and handlooms engage in the activities of spinning, weaving and processing. But the powerloom undertakes only in weaving the fabrics.

Among the above three sectors, powerloom sector occupies an important place in terms of production, employment, export and contribution for better standard of living of the people. The production of fabrics from powerloom sector amounted to more than 50 per cent of the total production of the fabrics in India. ¹

A handloom provides direct employment opportunity only to 2.4 persons.² But a powerloom provides direct employment of 5 persons per loom. They also provide employment to more than one crore of people in allied activities like cotton growing, spinning, warping, sizing, dyeing, bleaching, calendering, garment manufacturing, trading and exporting.³ Comparatively the employment opportunity in powerlooms is higher than that of the employment opportunity provided by the hand-


³. Unpublished records of the Tamil Nadu Small Scale Powerloom Industries Protection Federation, Komarapalayam.
looms. The powerloom provides cloth to the 40 crores people in India.¹

When compared to other industries the powerloom requires less capital that is Rs.15,000 per loom. The powerlooms give employment opportunity for more number of people. They help to produce more with their magnificent speed. A powerloom weaver is normally able to earn a reasonable income of Rs.20 to Rs.25 a day. As the powerlooms require limited energy for operation and supervision, they save the health of the weavers. Hence the powerlooms developed in handloom centres like Komarapalayam.

1.5 STATEMENT OF THE PROBLEM

During the early stages, in weaving, warp yarn were stretched between two beams pegged to the ground or between a tree and the weaving was carried out. Thereafter improvement was made in the weaving system by inventing warp-weighted loom, vertical two beam loom, horizontal loom, drawloom and

¹ Unpublished records of the Tamil Nadu Small Scale Powerloom Industries Protection Federation, Komarapalayam.
flying shuttle loom. These improvements in looms were introduced to overcome the problems that the weaver faced at the time of production and to produce more fabrics. But the improvements led for the considerable increase in production only and the hardships of weavers were not reduced.

Hence it necessitated the invention of powerloom. At the time of the introduction of powerlooms the handloom weavers alone have switched over to powerloom weaving. After the development, non-hereditary weavers also joined in the stream. The improvement in the socio-economic condition of these weavers is not so highly remarkable.

Even after the development of the powerlooms, the weavers in Komarapalayam are facing some problems.

The weavers are facing financial problem for installing additional powerlooms in their unit. They also face financial crisis for purchase of oil engine or generator to run their powerlooms profitable at the time of power failure. They are also in need of working capital to stock their product at the time of sluggish market. They find it difficult to borrow the needed money from banks and other institutions.
Power problem affects the production of the powerloom industry. Maximum number of weavers are not having generator or oil engine to overcome the problem of powercut. Hence, the production is affected at the time of powercut.

The weavers do not have the discipline of working in a unit continuously. There is also high percentage of absenteeism.

The weavers are facing marketing problem for their products at the time of sluggish market. They also do not have good command in the market because of their inability to produce more designs.

The weavers are working more than 10 hours per day per shift without a weekly holiday in general as against the norms of 48 hours of work in a week as per Section 51 of the Factories Act, 1948. They are not provided with overtime wages as per rules.

The powerloom industry absorbs children for pirn winding and dabba winding work as against the Section 67 of the Facto-

ries Act, 1948, which prohibits employment of young children in factory.¹

The powerlooms in Komarapalayam find a peculiar situation of employing of female folk also as weavers, at par with men. They are also employed in night shifts as against Section 66 of the Factories Act, 1948, which prohibits employment of women after 7 p.m.²

Separate working shed and certain amenities in the working place are essential to preserve the health of the weavers. This has been enumerated in the Factories Act, 1948. But the weavers of Komarapalayam are facing the problem of non-availability of separate working shed and lack of amenities in the work place.

Government of India enacted the Employees Provident Fund Act, 1952 and framed two schemes under the same Act as well as the Employees State Insurance Act to give certain benefits and protection to the labourers under certain conditions, which

². Ibid.
is also applicable to powerloom industry. But the weavers are denied of these benefits.

In order to ensure the workers to enjoy the fruits of their hard work, the Government of India has enacted Minimum Bonus Act. But, the weavers in Komarapalayam are not paid bonus as per the Act.

At the time of emergency the weavers use to get huge sum of money as advance from master weavers. This makes them binding to the master weavers and they could not leave from the master weaver's unit before the repayment of advance money.

Some of the weavers are borrowing money from the money-lenders in case of urgency without minding the higher rate of interest. This affects their income.

The socio-economic conditions of the Komarapalayam weavers are not in high order though they are well paid. Among them most are able to save only a little, some are not able to save anything and some have borrowed money.

Hence an attempt has been made to study the working conditions and socio-economic conditions of the powerloom weavers in Komarapalayam.
A few studies relating to problems of powerloom industry in general and production and marketing of powerloom fabrics were undertaken in the past. A brief outline of the studies in powerloom are given below.

Government of India appointed a 6 member committee under the leadership of Sri. Ashok Mehta in 1963 to study the problems of the powerloom industry. The report has pointed out that the major part of the country's powerlooms are established only in handloom centres. This is only a general study of the powerloom industry.

The Task force organised in 1988 under the leadership of Sri. Arun Kumar, the Textile Commissioner studied the problems of the powerloom industry on all India basis by conducting a survey. It estimated that the powerloom industry needs 200 crores for modernisation.

1.7 SCOPE OF THE STUDY

This study covers the powerloom industry in Komarapalayam only. This does not cover the powerloom industry concentrated in other parts of Tamil Nadu.

1.8 OBJECTIVES OF THE STUDY

1. To trace the history of the powerloom industry.
2. To analyse the working conditions of powerloom weavers in Komarapalayam.
3. To study the socio-economic conditions of the powerloom weavers in Komarapalayam and
4. To offer suggestions to improve the working conditions and socio-economic conditions of the powerloom weavers in Komarapalayam.

1.9 OPERATIONAL DEFINITION OF CONCEPTS

1.9.1 Weaving

Weaving means powerloom weaving.

1.9.2 Weaver

Weaver means powerloom weaver.

1.9.3 Powerloom

Powerloom means a machine used to weave cloth with the aid
1.9.4 Factory Weaver

Factory Weaver means a weaver working in a powerloom factory in Komarapalayam.

1.9.5 Job Work Weaver

A weaver working in his own powerloom with the raw material received from master weaver for consideration is known as job work weaver.

1.9.6 Independent Weaver

Independent weaver is one who has own powerlooms and directly engages in weaving operation or engages in supervision of looms with own production and marketing capacity.

1.9.7 Wages

Wages means the sum paid to the weaver for the quantity of fabrics manufactured.

1.9.8 Warp

Warp is a set of yarn running from the beam towards machine direction upto the cloth beam, through the reed.
1.9.9 Weft

Weft is the yarn used to interlace with the warp yarn with the help of shuttle for the manufacture of the fabrics.

1.9.10 Shuttle

Shuttle is a device which carries the weft yarn across the warp yarn from one end to another end.

1.9.11 Jacquard

Jacquard is a mechanism operated by punched card. It separately controls the warp yarn to weave intricate design.

1.9.12 Dart

Dart is a device used in shuttleless loom to grasp the weft yarn from a large package and to carry it through the shed.

1.9.13 Plain Reel Hank Yarn

A plain reel hank yarn is straightly wounded coil of yarn running to a length of 840 yards.
1.9.14 Cone Yarn

Yarn wounded over a conical shaped tube normally with a standard weight of 1 Kilogram.

1.9.15 Dabba Winding

Dabba winding is a preparatory work. It is winding of yarn on dabbas from the hank form for further utilisation in the manufacture of warp beams.

1.9.16 Pirn Winding

Pirn winding is a preparatory work. It is winding of yarn on pirns. Pirns are used in shuttles which carries the yarn(weft) in crosswise direction in the manufacture of fabrics.

1.10 COLLECTION OF DATA

Both primary and secondary data were used for this study. Since the powerloom weavers in Komarapalayam are large in number, sampling method is used to collect primary data. They were classified into 3 categories namely weavers working in factory, job work weavers and independent weavers for the present study. Three different interview schedules were used
to collect primary data from the weavers working in factory, job work weavers and independent weavers. Copies of interview schedules are given in Appendix A, Appendix B and Appendix C.

Secondary data were collected from the Annual Report of the Ministry of Textiles, Government of India, Unpublished records of the Tamil Nadu Small Scale Powerloom Industries Protection Federation, Komarapalayam, the Assistant Director of Handlooms and Textiles, Tiruchencode, the Director of Handlooms and Textiles, Government of Tamil Nadu, powerloom Enquiry Committee Report, Encyclopedias and the news papers like Tecoya Trend, The Economic Times, The Hindu, Indian Express and Salem K.V.M. Kandasamy Daily Market news.

1.11 SAMPLING DESIGN

In order to collect the necessary information from the powerloom weavers 100 samples were selected. The researcher has used stratified sampling technique to collect information from the powerloom weavers in Komarapalayam. Powerloom weavers were classified into weavers working in factory, job work weavers and independent weavers. For the purpose of collection of data, Komarapalayam was divided in 4 parts that is North,
South, East and West. 25 samples were selected from each part. Convenience sampling was used while selecting samples for interview.

The samples for the study were selected as follows:

a) Weavers Working in factory – 60
b) Job work weavers – 30
c) Independent weavers – 10

More samples were selected from weavers working in factory because they are in large number. Lesser samples were collected from job work weavers and independent weavers because their population is very low when compared to factory weavers.

1.12 CHAPTER SCHEME

The present study is presented in five chapters.

Chapter I deals with the introduction and design of the study.

Chapter II deals with the origin and growth of powerloom industry in India, Tamil Nadu and Komarapalayam.

Chapter III deals with the working conditions of the powerloom weavers in Komarapalayam.
Chapter IV deals with socio-economic conditions of powerloom weavers in Komarapalayam.

Chapter V gives the findings and suggestions to improve the working conditions and socio-economic conditions of the powerloom weavers and the powerloom industry in Komarapalayam.