REVIEW OF LITERATURE
CHAPTER II
REVIEW OF LITERATURE

An objective review of past studies on the selected topic viz. Textile Industry, is presented in this chapter with emphasis to pay special attention to the sickness of handlooms industry. This review is useful to define concepts, hypotheses, the focus and scope of the present study and serves as a background to draw inferences from the result of analysis.

The Review of Literature has been done on the following lines.

In the first place studies dealing with the importance of Textile Industry in general and Handlooms in particular have been presented.

Secondly, studies dealing with problems of the handloom industry in general and the problems of sickness in particular, have been presented.

Thirdly, studies pertaining to the Remedial Measures have been reviewed.

Fourthly, the review includes studies related to the various concepts relevant to the present study.
Finally, studies on the economic conditions of handloom weavers have also been added.

**Importance of Textile Industry:**

While emphasising the importance of the textile industry, Radhakrishnan says that the textile industry, whether looked at from the point of view of the capital investment of around Rs.13,000/- per million yards or the value of production of Rs.36,000/- per million yards the textile industry in India occupies the predominant position in shaping this country's economy.¹

According to David, the cotton textile industry is the oldest and largest organised industry in India. It occupies the pride of place among all the large scale industries in India.² It produces a vast variety of products for mass consumption as well as for exclusive markets in India and abroad.³

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³ All India Textile Directory, (Bombay: 1983), p.11.
The excellence of Dacca Muslin was the result of centuries of specialisation by exclusive communities of artisans. Sivayya and Das observed that the industry was well-organised in the country either in terms of value of annual output or number of labour employed and India had the world's highest acreage under Cotton. The cotton textile industry is rightly described as a Swadeshi Industry because it was developed with indigenous entrepreneurship and capital and in the pre-Independence era the Swadeshi Movement stimulated the demand for Indian textiles in the country.

Importance of the Handloom Industry

The handloom industry occupies a prominent place on the textile map of the country. In terms of employment, this is the largest in the decentralised sector, next only to agriculture, accounting for nearly 10 million persons.

5 Francis Cherunilam, "Industrial Economics - Indian Perspective," (Mysore: Sauhars Book Store, 1988), PP.516-51
Radhakrishnan, K.P. While arguing for the handloom sector as a means of fighting poverty and reducing unemployment, observed, that poverty and unemployment are relative terms and all the more they are interdependent. In a country like India, the handloom sector, as an instrument of decentralised economy, has to play a significant role to help reduce the disparities in income and wealth, and thereby bridge the gap between the poor and the rich and ultimately usher in an overall economic growth.

Therefore, its development has an important share in the social welfare of the country. One of the main objectives of the textile policy is therefore maximum possible growth of handlooms in the decentralised sector and faster growth of Khadhi, hosiery and the National silk sectors to generate more employment and raise the standard of living of small weavers and others employed in these sectors.

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Millions of persons depend upon handlooms for their livelihood and handlooms satisfy the requirement of cloth of millions of people. But unfortunately the average wage of a handloom worker is meagre, in contrast to the average wage of a worker in the organised mill sector per month. This was another social dimension of the handloom.

The traditional handloom industry first began to encounter a stiff competition from cheaper mill-made fabrics in the 19th century. But it was able to maintain its ascendancy in a variety of fancy goods of extremely fine material which the powerlooms could not produce and also in respect of a number of non-apparel articles of low counts required for domestic use.

Necessarily, then, the handloom sector had been given very high importance both in the National Textile Policy and in the plans. The Handloom Industry had in its fold about 5,56,000 handlooms, provided employment to 10 lakhs weavers and livelihood to 30 lakhs persons in Tamil Nadu.8

The policy of the government is to ensure adequate supplies of cloth at reasonable prices to the consumers particularly to the weaker sections of society. Further, Srinivasan argues that while encouraging the mill sector to grow, protection was to be given to the handloom, overwhelmed by the production from mills.\(^9\)

Problems:

In its course, the industry is beset with a host of problems which stand as stumbling blocks to the smooth running and development of the industry. Amongst all, deficiency of raw materials, price variations, labour problems and competition from mechanised textile industries seem to be the major problems of the handloom sector.

Major part of the yarn needed for handloom industries is obtained from the local mills. But the supply is marked by much uncertainty due to failure of the crop itself in some part or other of the country

and it adds to the cost of raw materials. Occasions are not infrequent when production has to be cut back due to drastic fall in supply or the delay in the transportation of raw materials from distant places.

Uncertainty in prices consequent to the fluctuations in the supply of raw materials in yarn, is another problem of the industry. Many a time, a large number of units are subjected to closure due to the uneconomical level of the price of raw materials. These price variations affect not only the owners but also a large number of weavers who are engaged as wage-earners in handlooms. The problem becomes more severe when product prices are fixed for a period of years as in contract with foreign importers, but the price of raw materials rises significantly, not only wiping out the profit but also causing heavy losses at times.

By nature, the production in handloom industry is labour-intensive. The operations involved in producing their goods require enormous amount of manual labour. As Iyer\textsuperscript{10} points out, the handloom is an

\textsuperscript{10} E.V. Ganapathy Iyer, "Indian Industrial Development and Its Problems," Bangalore, (Ganapathy Transport Associates)
appliance, worked by man with his hands, occasionally or frequently in association with the use of his legs also. Practical knowledge will prove that every stage requires human labour. So, the handloom industries engage a large number of persons in different functions of the industry such as dyeing, winding, warping, weaving, finishing, transporting and trading—all involving manual labour. Then, scarcity of labour of any required skill is a problem and it is not small. For all its labour intensity, productivity of labour is low, largely due to the nature of production technology used. But this brings in the problem of disparity in wages with powerlooms and mills and thus causing economic as well as psychological problems in this section of the society. This sort of situation tells upon the progress of the industry very much. Most of the handloom weavers are illiterate; they have little bargaining power and low wages persist.

The immediate and powerful rival to handlooms are the powerlooms. The powerlooms, whether in the organised mill sector or in the unorganised sector would be treated on par and allowed to compete on the
basis of their inherent strength and capabilities. These industries are capable of producing more number of goods within a short time. Naturally the powerloom products are cheaper and highly competitive when compared with those of handlooms. At times the handloom products produced in large quantities remain unsold, culminating in large scale lay off. This period of stagnation and unemployment is a source of social tension. Further relatively better economic advantages of powerlooms come from their capacity which is comparatively higher than that of the handloom. The mass production in powerlooms reduces the cost of finished goods and allows improvement in printing new designs. This problem of competition can be solved only by protecting handlooms through reservation of a few articles of textile to their folks exclusively.

Owing to improvement in the general standard of living and educational status of the people and serious social changes due to the impact of western culture in India, the demand for handloom goods has sufficiently contracted. Most people, especially the
townsmen prefer the shining dip and dry and wash and wear to the rough and rugged, though durable handloom fabrics. Thus, the market for handloom products provides little incentive for expansion of the industry.

Rajula Devi\textsuperscript{11} in her study on the plight of handlooms points out that a very large number of weavers however are still under the clutches of Master-weavers and middlemen. Though wages have been stabilised in the organised sector, the conditions of weaver under the unorganised sector, are far from satisfactory.

Regarding the conditions of independent weavers, C.Arputharaj\textsuperscript{12} observes that they have to purchase the yarn and other raw materials themselves, and so an increase in the price of these items or a decline in sale due to lack of demand the likely to have adverse effect on their earnings. The earnings of weavers working under master weavers solely depend on their work efficiency and the rate of wage, once the raw materials are supplied to them.


D.C.V. Prasada Rao\(^1\) has found that a comparative study of the wages paid both by the weavers' Co-operative society and master weavers shows that those employed by the former are better paid, with the result most of the weavers want to become members of the co-operative society.

A chronic problem of the handloom weavers had all along been the lack of finance. Jain L.C\(^2\) in his study in his serious problems faced by the handloom sector has observed that though banks were nationalised in the name of poor producers like handloom weavers, the latter have not received even 10 percent of their requirements, while colossal sums of soft loans are being pumped into the mills. If anything, there is a flow of credit in the reverse direction, (i.e.) from the handloom weavers to the government due to inordinate delays in reimbursement of rebate and subsidy.

Rajula Devi, A.K.\(^3\) in her study on the plight of the handloom sector has observed that present day productivity of handloom is as low as an average of two

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metres per loom per day. It has been estimated that a large capacity in handlooms is underutilised or unutilised. Further, it has been observed that the handloom sector can meet the competition from powerlooms only through change over to new designs.

Arputharaj, in his "Enquiry into the problems of the handloom weavers in Tamil Nadu" enumerates the following to be the main problems of handloom weavers. Being a cottage industry a majority of the looms are concentrated in rural areas throughout the country. The weavers are mostly residing in small huts without adequate space even for dwelling. So making changes in method of weaving, or the type of cloth woven becomes difficult. Further, since traditional designs and techniques continue to exist without any change, they do not get the necessary feedback of the market conditions.

Secondly, even though the requirements of fixed capital in handloom industry are very small, finances

for working capital for purchase of yarn etc., are quite high. The independent weavers are mainly affected by this problem.

Thirdly, handloom industry is a decentralised one and there is no protection to the weavers with regard to payment of wages, security of employment, working conditions etc., As a result the plight of the weavers working under master weavers and factories are very unsatisfactory.

Fourthly, the weavers generally complain that the yarn supplied to them inspite of high prices, is of very low quality.

Dr. Arputharaj further says that working with low quality yarn decreased the work efficiency and in turn productivity. Better facilities have to be provided to the weavers in order to improve their efficiency and production. A better loom with improved pedal might prove profitable. However, the weavers are not in a position to meet the initial cost from their own resources.
Handloom Industry is next only to agriculture. One crore of our people are earning their livelihood through the industry. In the last budget a sum of Rs. 30 crore was allotted to Handloom industry. A very large number of people are engaged in this industry. The money allotted is very meagre.

Sickness:

Industrial sickness can be just as complex and difficult to diagnose as sickness in the human body. Just as physical illness can sometimes be caused by psychosomatic causes, so also industrial sickness can be caused by a number of socio-psychological causes which may be present in the environment in which the industry functions.18

Sickness has become endemic in the Cotton mills ever since the sixties. Industrial sickness is a complex phenomenon and often defies diagnosis as many factors at the unit level as well as in general economic scenario remain concealed.19

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The factors contributing to sickness of individual units can be of two different kinds. The first is the pressure from the environment which decides the par of price between raw material and the final product. Secondly, sickness is induced by and proliferates under adverse economic conditions, and is also affected by government regulations and by local constraints on mill operations.  

According to Desai, industrial sickness has been particularly severe in the textile industry for a variety of reasons. The reasons for the sickness include financial difficulties, obsolete plant and machinery, mismanagement, marketing-problems and poor industrial relations.

The handloom industry is ailing from constant sickness, is obvious from the very fact that the New Textile Policy seeks to take a total and integrated view of the problems of India's oldest industry; a good chunk of which has been ailing and needs revival, innovation and modernisation to become competitive in terms of both quality and prices.

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20 Ibid., P.213.
Like a human body, an industrial unit, generally passes through various stages before it actually becomes sick.\(^\text{22}\)

Sickness does not develop all at once. In most of the cases, it is bred within the unit itself. Warning signals or symptoms of sickness may differ from unit to unit, depending upon the stage of its development but they can be discerned easily by the people around.\(^\text{23}\)

**Remedies through policies**:

According to the Textile Policy of 1985, the producing of mixed and blended—fabrics in handlooms would be encouraged. There would be enforcement of the law, providing reservation of some articles for production in the handloom sector. To make handloom cloth more competitive; the handicap of handloom vis-a-vid powerlooms would be sought to be removed by suitable fiscal measures. A number of maps and schemes to improve the working conditions of handlooms weavers have been incorporated in the policy statements.\(^\text{24}\)

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\(^\text{23}\) Ibid., P.386.

The New Policy says that the responsibility for the entire production of controlled cloth would be transferred to the handloom sector by the end of the Seventh Five Year Plan. The handloom sector may continue to get a boost because of the reservation, but the success of the cheap cloth programme depends upon the timely and adequate availability of yarn at cheaper prices. To overcome this uncertainty, the government may establish a yarn bank to supply yarn at a reasonable price to the handloom sector. The policy also rightly expresses grave concern over the growing sickness in the textile industry and lists several measures to arrest and reverse this trend.

As reported in the Economic Times, the handloom sector occupies a significant place in the rural-urban technological and social linkage in the Indian economy. Despite a number of policy measures formulated for its development, the handloom sector has not grown sizably. This is because of the overlapping role of various textile sectors, unorganised structure of handloom sector, lack of adequate

marketing and infrastructural base for their growth and promotion.

The growing demand for clothes/textiles has been met by encouraging powerlooms and mill-made clothes based on cotton and man-made fibres. However much of this growth has come at the expense of the handloom sector. A number of villages which were primarily handloom-specialised-weaving centres have changed into powerloom centres. Over emphasis on non-handloom clothes have distorted the consumer preferences against handloom clothes. The agencies co-ordinating the development and promotion of handlooms sector in terms of manpower training, technological development, design development, promotion of co-operativisation have not done their tasks satisfactorily.

Any growth of the handloom sector would depend upon the formulation of a concrete plan and its effective implementation.

While referring to ancient nature of the industry Betrabet\textsuperscript{26} says, "Our textile industry is over

\textsuperscript{26} Dr.S.M.Betrabet, Twenty sixth Technological conference "Rehabilitation of the Textile Industry": (A joint Publication of ATIRA, BSTA, SITRA & SITRA, Ahmedabad, 1985), p.14.
100 years old. Perhaps, therefore its state is that of an old man in many ways. A man is not old when his hair turns grey; a man is not old when his teeth decay, but a man is getting near his last long sleep, when his mind makes appointments which his body can't keep."

Under the New Textile Policy, Intensive Development Projects and Export Production Programmes have been implemented by the State Handloom Development Corporations. 27

Bringing Handloom under the fold of Co-operatives has been the basic programme of both the State and the Central Government over the last three decades. It includes schemes for training and organisation. Under the training schemes, training programmes have been organised for personnel, at different levels of handloom in the States, at the Institute of Management, Ahmedabad and various co-operative training colleges of the National Council of co-operative Training. Further, the National Handloom Design Centre and the National Handloom Museum had been established in 1983 with a

view to collecting old specimen of textiles and techniques of various traditional handlooms for study, research and product-development.

The handloom sector is faced with the problem of periodical accumulation of stock. To help liquidate the stock of accumulated handloom fabrics, the Government of India has come out with a scheme under which a special rebate is given at a rate of 20 percent to Apex Marketing-Societies and State Handloom Development Corporations to be shared equally between the central and State Government on the sale of handloom products for 30 days in a year. This scheme has now been modified from the year 1983-84. The number of days has been increased from 30 to 60. Since 1981-82, a special rebate has been given on wholesale sales of handloom fabrics by Primary Handloom Weavers' Co-operative Societies at the rate of 15 percent, again to be shared between the central and state governments. The rebate was applicable for 30 days in a year. This policy has also been changed from the year 1983-84 and the number of days has been increased from 30 to 60.

Thus, the Indian Textile policies have been quite helpful in promoting the handloom industry.
The scenario for the Textile Industry has undergone a change with the announcement of the new Textile Policy in 1985. The last line in the policy is of great significance and it reads, "The healthy development and rapid growth of this industry has therefore a vital importance."  

As per the Textile Policy of 1985 in the weaving sector the distinct and unique role of the handloom sector shall be preserved. The growth and development of this sector shall be preserved. The growth and development of this sector shall receive priority. In order to preserve the unique role of handlooms and enable them to realise their full potential as also to ensure higher earnings for the handloom weavers, the following main steps shall be taken,

1. The development of handlooms through co-operatives.


ii. Greater emphasis will be placed on the modernisation of looms and provision of technological and other inputs for improving productivity of handlooms and the quality and finish of handloom products.

iii. Special efforts would be made to ensure adequate availability of yarn and other raw materials of the handloom sector. The infrastructure for procurement and supply of such inputs at reasonable prices to the handloom weavers shall be strengthened through the operations of the National Handloom Development Corporation and the State level handloom agencies.

iv. Encouragement of the production of mixed and blended fabrics on handlooms, to improve the wages and earnings of the weavers.

v. Protection to handlooms will be provided by reserving articles for their exclusive production in the handloom sector under the handloom (Reservation of Articles for production) Act 1985. The provisions of this Act shall be strictly enforced and the machinery for doing so shall be suitably strengthened.
vi. To improve the competitiveness of handlooms, steps would be taken to remove, as far as possible, the cost handicap of the handlooms vis-a-vis the powerlooms by suitable fiscal measures.

vii. To improve the marketing of handloom products, infrastructure of marketing complexes, training of marketing personnel and intensive publicity shall be organised. Steps would be taken to upgrade the technical, managerial and administrative skills of personnel employed in the handloom sector.

viii. To strengthen the data base for the handloom sector for better planning and execution of handlooms development programmes, a census of handloom shall be undertaken. The machinery for implementation, supervision and evaluation of handloom programmes shall be strengthened.

In order to improve the working conditions of the handloom weavers and to provide direct benefit to them, the following schemes, amongst others, would be introduced.
1. A contributory thrift fund scheme to provide assistance to the handloom weavers during times of need.

2. A workshop-cum-housing scheme to provide a better place for work and living to the handloom weavers.

3. It should be electrified and electricity should be supplied at cheap cost.

Further as Kulkarni R.S. has suggested in his study 'on the need for improved looms' the handloom industry should fulfil the following criteria: (a) it should be operated by both the hands; (b) ladies also should be able to work with it (c) it should be less noisy; (d) it should have good efficiency; and (e) it should not be a hindrance to domestic life. The Research Centre at Khadi and village Industries Commission has been working on to develop looms with the above features.

Concepts:

A clear knowledge of the various processes connected with weaving is necessary to understand the character of handloom industry and its problem in the perspective. Important concepts used in the study are discussed in this connection.

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Handloom

A handloom is an appliance worked by man with his hands, occasionally or frequently in association with the use of his legs also. The three different types of handlooms which also show their progressive stages of improvements are 1. pit loom, 2. frame loom and 3. automatic loom.

Dyeing:

Yarn, as it comes from the textile mill, is grey or unbleached. For the manufacture of coloured fabrics, the grey yarn has to be dyed in the requisite

colours. This is usually done by specialists except in large factories which have their own dyeing section. 32

Warping:

Warping consists of the length-wise arrangement of the yarn for the making of cloth.

A warp may vary in length from 16 to 200 yards according to the kind of cloth to be woven and the centre in which it is made. Two types of warping are popular in the Madras Presidency viz., Wheel-warping and peg-warping. A preliminary process to warping is the winding of yarn round the bobbins with the help of a charka. From the bobbins the yarn is unwound and made into warp. Peg-warping appears to be more popular in the West Coast while in the other districts, the wheel-warping has almost supplanted it. 33

Sizing:

This operation refers to the application of starch to the yarn after the warp has been made. Rice or Ragi Kanji 34 mixed with a little oil is brushed

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33 Ibid., P.10.
34 Ibid., P.10.
into the yarn to make it strong and taut; Otherwise the yarn is not likely to stand the strain of weaving. Yarn of lower counts is not generally sized, for instance in the handloom factories of West Coast, specialising in the manufacture of curtains etc. The warp is laid on pegs at a height of three or four feet from the ground level and starch is applied to it uniformly. The process of sizing is done by a team of workers. In small weaving villages, weavers form into groups and assist one another in sizing which is usually done in the early morning before the Sun is too far up. In large centres, certain number of men specialise in sizing and do not perform any other work. They also work in gangs and are able to get work for more than eighteen days in a month.  

Counts:

It refers to the thickness of the material. 100's and 80's are fine counts whereas 60's and 40's are coarse counts.

Loom preparation:

The loom itself has to be prepared for the specification of the cloth. The reed needed for the specified number of ends has to be assembled. It is a specialised occupation. In North Arcot it is done by Achu Kattu Sahibs.

The three different types of handlooms, which also show their progressive stages of improvement are (a) pit loom, (b) frame loom and (c) automatic loom.

The pit loom is constructed of wooden bars and planks and operated with throw or fly shuttle sleys. Fly shuttle sleys have rapidly replaced the throw shuttle sleys and are calculated to give a better-daily output of woven fabric from the loom. Simplicity of construction and cheapness are the main features of the pit loom and because of this it still continues to be in use and form an excellent equipment for the training of beginners in weaving and average quality production. For getting proper production and easy operation with the to pit loom, it is important/have the other working parts of
good and efficient condition namely the sley, the shuttle, the reed and the warp and cloth beams. A pit loom of local make and suitable condition may cost about - Rs.400/- including reeds, healds; reeds are usually manufactured from bamboo chips and the healds from knitted thread or twine. A daily output of 7 to 8 yards per loom may be considered to be a good average. Attention is given to the standardisation and improvement of the making of reeds, healds and the beams and to provide facilities to the weavers for proper and quick execution of the preparatory process of bobbin and pin, winding of yarn, warping and gaiting of the warp will be well-repaid by improvement of the industry in this, its biggest section.

The frame looms work nearly on the same principles as the pit looms. These looms are however placed conveniently within wooden frame and can be worked with several treadles and dobbies and jacquards may also be fitted. Besides, long warp length can be secured. These looms are the most common in use now and have deservedly become popular. The cost of each of these looms is higher than that of the pit loom and is about
Rs.1000 to 1200. The daily average production of these looms is 10 yards per day of 8 hours for a trained worker.

The automatic loom of manual operation is an improved type of loom fitted with pedals which are worked by legs, the movements being automatic. On this loom, designs other than plain weave can be woven by adjusting the number of lappets and the roller system of shedding and a substantially higher daily output of cloth (12 to 18 yards) can be observed. However its capital cost is high being about Rs.3000 each and the loom can be worked efficiently by an experienced weaver. Its use would be naturally restricted to the production of special types of fabrics of improved design and quality.

Warp - Joining:

The ends of the new warp have to be joined to the ends of the old finished warp before the warp can be inserted into a loom. This is a monotonous job, calling for immense patience and is done by men too old to weave.
Winding:

When the yarn is wound round bobbins for making the warp, it is called bobbin winging; when it is wound round pirns to be put into shuttles and used for weft it is called bobbin winding. Both kinds of winding are done with the help of the spinning wheel.36

Weaving:

After all the above processes are completed, the weaver may commence weaving. Looms are of various kinds and with reference to Madras Presidency, only two are important, the fly shuttle and throw shuttle. The fly-shuttle looms were fast replacing the throw-shuttle although the latter were indispensable for weaving certain patterns such as solid-border cloth. In the case of weaving certain kinds of border, throw shuttles are used and the weaver is assisted by a boy or a woman (generally his wife) sitting to his right. It is the duty of this assistant to pull the shuttle through the shed specially

36 Ibid., P.11.
intended for weaving the particular design and push it back to the weaver. The assistant has got to be both alert and diligent.

Jacquard Looms:

The latest development in looms are the Jacquard looms by the use of which designs are made on bedsheets. They produce only high quality fabrics. Wages for weaving in this loom is generally high.

Workers:

The term 'workers' was used in the same sense as defined in Section 2(1) of the Factories Act (1948) where a worker was defined as a person employed directly or through any agency whether for wages or not, in any manufacturing process or in cleaning any part of the machinery or premises used for manufacturing process or any kind of work incidental to or connected with the manufacturing or the subject of the manufacturing process. However, persons holding positions of supervision and management or employed in a confidential position were excluded.
**Wage:**

Wages included all payments made to workers in cash as compensation for the work done by them during the year, such as basic wages, dearness allowance, overtime payments, shift allowance, leave wages, wages for paid holidays and regular bonus such as production-bonus, good attendance bonus, incentive bonus etc., while they were paid more or less regularly for each pay period.

**Modernization:**

Modernization refers to replacement of old machines with new ones which will lead to expansion in output.

According to Srinivasan\(^{37}\) modernization is not something that is done today and forgotten for the next ten years. Often, mills get into trouble mainly because they allow things to drift and, finally when wholesale modernization has to be undertaken, labour displacement becomes a major problem. They also

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have to find large sums of money which imposes a great financial strain at a time when their profitability is low. Therefore, rather than modernise by fits and starts and create a cycle both in financial commitment and labour displacement, modernization should be a continuous process.

Srinivasan further says that no discussion of modernization would be complete without a reference to automation in the textile industry. In a country like India adoption of automation poses a number of socio-economic problems apart from those created by the technology itself. It is therefore clear that the problems of the introduction of sophisticated technology in general and automation in particular, are complex and should be considered very carefully. But this has limited scope in handloom and explains probably its struggle to survive and grow.

According to Ayer, modernisation is a continuous process and has recently to be need-based.

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38 Ibid., pp. 71-72.
Pumping in money into the industry first for the sake of modernisation does not yield the desired results. Investment decision should always be backed with the level of technology which will be needed for an agro-based labour intensive industry as ours. In many cases modernisation has been lopsided and the practical profitability has not come about because of lack of follow up regarding the cost benefit analysis. Optimisation of available resource including money and stagnation in the product mix which should have been normally changed to suit the changing needs of the consumers.

Unless the industry is assured of the ability to make a value-added product, investment in modernisation will not result in generation of a cash surplus to sustain the level of modernisation. According to Vijayanagar, the overseas markets are very discriminating and demanding in terms of both quality of production as well as prices at which the goods are

offered. International markets demand flawless yarn and long term flawless fabrics at competitive prices. To do so, it is necessary to carry out urgent technological upgradation of production processes.

A thorough study of the Development of Handloom Industry in Tamil Nadu, has revealed that in India at present over 10 million people are directly employed in the handloom sector and an equal number of people earn their livelihood in the technical, commercial and service sectors connected with handloom.

In Tamil Nadu two important programmes are implemented for the benefit of the weavers.

(1) Raw material Bank to avert any possible crisis regarding yarn. The government of India has helped the state government to set up a Raw Material Bank. Financial assistance is being given on a matching basis.

(2) Establishment of art silk mills.

The All India Handloom art Handicraft Board has recommended the establishment of separate spinning mills for art silk with a view to increasing the production of art silk and bringing down the price of the yarn. All the art silk mills in the country are now in
the private sector. Establishment of modern dye-houses, managerial subsidy, proper distribution of Hank yarn, celebration of the handloom week, etc., are some of the schemes.

According to the High-powered study team on the problems of the Handloom Industry, there were 35,63 lakh handlooms in the country. In view of the fact that the potential of one loom is 1.5 persons and assuming atleast one person per loom, this should account for the employment of nearly 3.6 million workers as against about one million workers in the organised cotton textile industry.41

The State Governments of Maharashtra, Tamilnadu, Andhra Pradesh, Goa and Kerala appointed a committee to look into the matters of the respective states. The Tamil Nadu Government appointed a committee under the chairmanship of Santhanam.

Economic Viability:

At present the handloom industry is facing keen competition from the powerlooms and Mill sector.

A number of factors affect the economic viability of the industry. In the first place, the supply of yarn has become scarce, uncertain and costly, because the lion's share of it is absorbed by the powerlooms and mills. Since the price of yarn is high, the price of finished fabrics is also high and this in turn affects the demand for handlooms.

Ranganatham says that the fabrics produced in handlooms as could be expected would be costlier to produce as compared to other sectors, the extent of difference over powerloom sector being on the average about 22 percent with cotton fabrics. This increased cost of handloom is due to the higher conversion cost, consequent to the very low labour productivity. The labour productivity in weaving alone is extremely low, handlooms requiring more than 100 operative hours to produce 100 metres of fabric, which is about 12 to 15 times the operative hours employed in the other sectors.

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TABLE 3
WAGE COST OF CLOTH COMPARED FOR HANDLOOM WITH MILLS

<table>
<thead>
<tr>
<th>Sector</th>
<th>Wage Rate in Rupees per Shift</th>
<th>Working Hours per Shift</th>
<th>Operative Hours per 100 metres of fabric</th>
<th>Index of Wages per metre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mills</td>
<td>50.00</td>
<td>7.5</td>
<td>6 to 14</td>
<td>100</td>
</tr>
<tr>
<td>Powerloom</td>
<td>25.00</td>
<td>10</td>
<td>9 to 23</td>
<td>56 to 62</td>
</tr>
<tr>
<td>Handloom</td>
<td>11.50</td>
<td>10</td>
<td>102 to 185</td>
<td>228 to 293</td>
</tr>
</tbody>
</table>

In general, for cotton fabrics produced in handlooms, the cost would be higher by about five percent on an average; and the handloom fabrics processed in private process-houses would be costlier by about three percent as compared to mill-fabrics.

In measuring the performance of handloom units and for comparing performance of private units with that of co-operative units, the following measures were used.

Labour Productivity:

According to Ratnam

\[^{43}\text{Mr. P. V. Ratnam, "Costing Adviser (Allahabad Kitab Mahal Publishers, 1990), P.852.}^{43}\]
total output divided by the actual number of hours worked.

Unfortunately labour productivity of the handloom workers is invariably low because of the outmoded looms and methods of production. Further, the dexterity of a worker diminishes after working continuously for three or four hours, unlike in the case of a worker in powerloom or mills.

Production Efficiency:

According to Ratnam production efficiency is actual production in standard hours, divided by actual number of hours worked, multiplied by hundred.

Capital Intensity:

Maheswari says that capital intensity or capital turnover ratio is sales, divided by the total capital employed in the business.

44 Ibid., P.852.
If the additional capital has been used intensively it will result in an additional gross profit.

**Profit Rate:**

According to Maheswari\(^46\) profit rate is \(\frac{\text{Gross Profit}}{\text{Sales}} \times 100\)

Operating Profit ratio is \(\frac{\text{Operating Profit}}{\text{Sales}} \times 100\)

**Review of past studies on handlooms:**

Thiru Sundar Singh\(^47\) in his study "The Handloom Industry in Madurai City" says that 1) Wage rates vary for different categories of weavers and products such as higher wages for co-operative weavers and one who weaves finer varieties. 2) The cost structure of the product varies with organisational set up and the type of products. Such as higher wages for co-operative weavers and lower, for coarse varieties. He has also said that the handloom industry has a large segment of women workers in Madurai district in contrast to the Textile Mill Industry where their number is considerably less. The Master weavers have been able to borrow, improve and develop even without bank credit, of course exploiting the cooly weavers who have to be under their money.

Thiru Selvaraj\(^48\) in his study "The Role of Co-operative Societies in Handloom Industry in Chingleput District" has summed up the problems of financing

\(^{46}\) Ibid., P. 30.

\(^{47}\) Comments are drawn from Prof. P. Krishnamurthy's M.Phil., Dissertation, Bharathidasan University, 1989.

\(^{48}\) Ibid., 1989.
the handlooms 'industries,' about the various financial institutions like the Reserve Bank of India involved in financing handloom industry through the weavers' co-operative societies in the Chingleput district.

Thiru. Ponnambalam in his study on 'The Socio-Economic Conditions of Workers in Gudiyatham town' depicts the poor socio-economic conditions of the weavers of Gudiyatham. The weavers here, suffer from want of timely and necessary finance. The children of the weavers lack educational facilities.

In his study on 'Weavers Co-operative Societies in Coimbatore District' Thiru. S. Shanmugasundaram has highlighted the phenomenon of the exploitation of the weavers by their master-weavers. He has advocated the development of the co-operative societies which alone could save the have-nots from the haves. The study has also pointed out that the weavers are being exploited by their master-weavers by offering them very low wages because the latter are at their beck and call, for their livelihood.

49 Ibid., 1989.
50 Ibid., 1989.
According to Shanmugasundaram, the main reason for the exploitation is the poor utilisation of weavers' Co-operative Societies by their members and the utilisation depends upon the Socio-Economic status of the members of the weavers' Co-operative Societies.

Geetha in her study, on the Socio-Economic conditions of the weavers in Uraiyyur, Tiruchirapalli has presented a general account of the Handloom industry. This study has taken a survey on the random sampling technique.

The scope of the study is to analyse income and expenditure pattern of the weavers and marketing outlets.

The objectives of the study are; (1) To study the quantum of production of handloom sarees in Woriyur. (2) To examine the conditions under which production is carried out by the weavers.

(3) To analyse the sources of income for the sample respondents.

(4) To study the expenditure pattern of the sample respondents.

(5) To make a comparative analysis of their income and expenditure and calculate the average productive capacity.

(6) To analyse the pattern of marketing outlets within the state and outside the states.

The Hypotheses of the study are; (1) Higher the income, higher the expenditure on food and clothing.

(2) The Woriyur sarees command a wider market outside the state than within.

(3) The income obtained by the weavers working on their own looms is significantly higher than that of weavers working under hired looms.

As for the methodology, the study about the socio-economic conditions of weavers at Woriyur is based
on the primary data collected from 100 weavers. For the sake of convenience, random sample technique has been adopted in selecting the weavers. Completely enumeration method has been adopted to get detailed information regarding income, expenditure, standard of living, education, assets savings and debt with the help of a detailed questionnaire from the weavers.

Personal investigation method was adopted for collection of data, with a detailed questionnaire pertaining to size of the family income, expenditure, assets, holdings of the households etc.,

The Limitations of the study are; (1) Most of the weavers are illiterate and do not give concise reply to any question.

(2) The survey is time-consuming.

(3) The information collected so far is mostly primary since not much of the data are available.

Thiru.P.Krishnamurthy in his study "The Socio-economic conditions of silk weavers of Thanjavur Town"

analyses the conditions of handloom weavers. A sample survey is undertaken.

The objectives of the study are; (1) To study the socio-economic status of the silk weavers in Thanjavur town.

(2) To study the expenditure pattern of silk weavers groupwise.

(3) To assess the income of the weavers, looms-wise in every household.

The Hypotheses of the study are; (1) Socio-economic conditions of weavers is a function of the capital involved in the industry and the organisational set up under which weavers are working.

(2) Family expenditures are patterned on the model of Engel's Law of Family Budget.

(3) Number of looms and income of the weaving households are positively correlated.

As for the methodology, a sample survey is undertaken to study the four different groups of weavers.
This study has applied the stratified sampling technique to study the socio-economic conditions of the silk weavers in Thanjavur town. A ten percent sample is attempted and the sample is stratified according to functions such as: (a) half-coolies, (b) Full coolies, (c) workers under co-operatives and (d) Independent weavers. This study has used simple statistical tools such as averages, percentages, diagrams, correlation and F. Test for analysis and for interpretation of the data collected from the 75 sample households.

The Limitations of the study are, this is only a study of the socio-economic conditions of Thanjavur Town at a point of time viz., 1982-1983. The conditions prevailing in this locality may not prevail in other silk weaving centres. Hence the conclusions cannot be generalised without further studies.

The Scope:

According to sastric injunctions, silk has been accorded a ritually pure status. Besides, weaving silk
clothes was considered to be a social status. Silk is used by all levels of people during marriages, as well as religious functions. Hence, there is enough scope for silk in India and its development.

M.Bhavani, in her study on the productivity and wages of silk weavers in Kumbakonam, analyses the productivity and wages of the silk weavers in Kumbakonam by examining the skill levels and differences among men-weavers and child-weavers, their employment status, wage differentials between weavers in the private and co-operative sectors, in the determinations of productivity of the weavers.

The objectives of the study are: (1) To enquire into the structure of employment in the silk weaving industry.

(2) To measure the productivity of weavers through a physical unit of measurement.

(3) To find out the differences in productivity and the causes for the same among the categories of weavers.

(4) To examine the systems of wages and the factors determining them.

(5) To enquire into the differences among the wages of different categories of weavers.

The Hypotheses of the study are; (1) The man-hour productivity of private weavers does not differ significantly from that of co-operative weavers.

(2) The man-hour productivity of men and women-weavers does not differ significantly.

(3) The average monthly wage income of private weavers does not differ significantly from that of co-operative weavers.

(4) The average monthly wage income of men-weavers does not differ significantly from that of the women weavers.

The Limitations of the study are; Silk-weaving industry in Kumbakonam offers potential employment opportunities to around 7,000 households. The employment is both direct and indirect and indirect in nature. 'Unlike other agro-based industries, the silk weaving offers continuous employment to the weaving community.
The weaving skill at different levels is acquired not through any institutional training but only through the process of learning by doing. Naturally most of the weavers are not educated enough and are having memory bias. Hence the information elicited from them for a question on the time taken to produce a saree and the length of the saree they were able to weave, are not accurate enough. The employment is mostly contractual in nature and so is the amount of wage received. Thus the study met with the above constraints.

As for the Methodology; data are collected by a personal interview method with the help of a pre-tested questionnaire.

Tools used, the study is based mainly on primary data. As the sample size is large enough, the statistical tool of test of significance for large samples has been used to test the hypotheses. Bar charts and pie diagram are used to illustrate the data.

Unlike the earlier studies on handloom weavers which are descriptive in nature, the present study has attempted the problems of the handloom weavers in Karur Taluk leading to the sickness of the industry, on
analytical approach. The present study is distinct from the other studies in this field on the following grounds.

(i) It has paid special attention to the sickness of the handloom industry and suggested relevant remedies.

(ii) It has made use of simple statistical tools such as average, tabular analysis, frequency tables, and analysis of variance. Time series data and co-efficient of variation.

Having reviewed the existing studies on the Economics of Handloom Industry, a profile of the Handloom Industry in the study area has been presented in the following chapter.