Chapter - II

Objectives, Methodology, Scope and Limitations.
Unfortunately there has not been much literature on the comparative economics of powerlooms and handlooms in general and in Andhra Pradesh in particular. There are numerous works done by the Government agencies other institutions, and individuals on different aspects of handlooms. A few studies were made to evaluate the contribution of powerlooms. It is alleged that expansion of the powerloom sector leads to a certain degree of displacement for mills and handlooms (Jain 1981, Hussain, 1989). However, in recent years, particularly in Andhra Pradesh, powerlooms are in distress due to export slump, marketing problems, availability of raw materials at higher prices and power shortages. Today, powerloom industry is not in a position to provide employment to its labourers. similarly, the handloom industry is also in doldrums due to the withdrawal of several subsidies so far enjoyed by the handloom sector and especially by winding up the Janatha cloth scheme, which was the main provider of employment for weavers, the new economic reforms have together discouraged the working of conditions of the handloom sector.

Amidst these controversial situations, the studies of comparative economics of powerlooms and handlooms were not received the desired attention by the economists and researchers which it deserves. A brief review of the works presented in the succeeding paragraphs reveals that this type of studies were not conducted particularly in Andhra Pradesh.
2.1 REVIEW OF EARLIER STUDIES

Prof. Ranga N.G. conducted a survey during 1925-26 over a period of six months in different parts of South India including the present Andhra Pradesh. The unique contribution of the study was that it gave a good account of the important handloom centres of production and analysed the nature of economic organisation, structure of the markets, pattern of production. This study was the first authentic account of the structure of the handloom industry in Andhra Pradesh.

Kakade R.G. analysed the socio-economic conditions of weavers of Sholapur city in 1939. The primary aim of the survey was to study the organisation of the industry in Sholapur, one of the biggest centres of handloom weaving in India, in a comprehensive and detailed manner and to study the sociological aspects of the communities engaged in the industry.

Sahai identified the problem of competition from powerlooms and organised mill sector. The study felt the need for introducing modern techniques of production in handloom industry and weavers should learn modern techniques relating to handloom industry to get continuous employment and to earn more through handloom weaving. It observed that Government must open training centres in the State and appoint teachers to teach all aspects of the modern designs. Special courses should be conducted in the villages where the weavers are highly concentrated.
The Council of Scientific and Industrial Research took up an extensive survey on handloom industry in 1957. The study focussed more attention on the technical aspects of the industry viz., winding, warping, sizing, bleaching, types of looms etc. It observed that considering the magnitude of the industry and its problems, the assistance provided is inadequate and the need for more substantial help becomes apparent.

David Anterro Aloysins observed various aspects of the handlooms industry. The main aspects of the industry is the problem relating to the production side and marketing side. The study observed that the producer fixes very high rates to the handloom products. Hence, he felt that the Government should supply the raw materials to the weavers at subsidised rates.

Ashok Mehta Committee studied the powerlooms and handlooms in the country and recommended that the production of coloured sarces should be exclusively reserved to handloom sector. It further felt that a large number of weavers should be brought under cooperative fold.

Venkateswaran committee submitted its report in 1964 the committee enquired into the development of handloom industry during the fourth five year plan. It recommended that a legitimate share of superfine yarn imported should be provided to handloom sector. The supply and marketing societies should be converted into production-cum-sales societies as quickly as possible. The State Financial Corporations should finance handlooms sector. The working group emphasized on the need for intensive publicity and
propaganda. Finally, it suggested the setting up of export promotion council for handloom textiles.

Planning commission\(^9\) conducted a study on the impact of handloom development programmes on employment and earnings amongst weavers. The study observed that the co-operative member households gained relatively more and recommended the adequate working capital towards production and marketing activities.

Abdul Zahir\(^9\) enquired into the problems of handloom industry in Varanasi. His work mainly focussed on the operational problems of the industry. The study observed that the handlooms have been suffering from lack of raw material so they can be supplied necessary raw material and open supply centres with Government intervention and provide raw material directly to the weavers at subsidised rates.

Nanekar\(^11\) in his study argues that unless the production of handloom industry is increased substantially nothing tangible can be gained by solving other problems. The later gives marginal benefit to the weavers and may bring about some stability in their incomes. The long-term and significant improvement in the earnings, however, depends on the productivity of labour, a problem ultimately associated with the techniques of production.

Krishna Murthy\(^12\) in his work made a reference to the year-wise number of powerlooms from 1942 to 1965 and also provides a comparative monthly earnings by an average worker in handlooms and powerlooms. The
earnings of a handloom worker ranges from Rs.18.75 to 27.25 during 1963. It was estimated that a powerloom worker earns Rs.86.50 during the year 1963. The work also deals with growth of cotton handloom production during first three five year plans and the average cost of production of cotton handloom cloth. He made an analysis of marketing the clothes produced by handlooms.

Somappa M.\textsuperscript{13} feels that Government neglected the industry so far. The Government gives priority to develop the agriculture, the mill and powerlooms sectors as a result of this the handloom industry has fallen into deep crisis. To develop the industry the Government should spend huge resources on handloom sector

Sinakandhan S.K.\textsuperscript{14} identifies various problems regarding handloom industry. The weavers were suffered due to lack of proper organisational support, the hike in the raw material cost and the problem of lack of marketing facilities. The study concluded that the Government should give priority to allocate resources to develop the industry.

Rao C.S.\textsuperscript{15} observed that the employment in handloom industry is declining because the weavers are trying to change their profession and go to alternative works due to the inadequate financial support from Government. It is identified that the weavers are facing the problem of hike in the raw material cost, scarcity of the necessary inputs, lack of proper product marketing and financial facilities.
Yagaiah T. observed that handloom industry was facing the problems of supply of yarn, raw material and marketing. To develop the industry in future, the Government should give priority in five year plans and improve the marketing of handloom cloth, supplying the yarn and related raw material at cheaper rates.

Batra J.D. observed that the industry suffered from organisational weaknesses, uneconomic working conditions, irregular supplies with volatile prices shortage of credit, lack of proper marketing facilities and not to speak of unbeatable competition from powerful mill and powerloom sectors.

Srinivasan T.S. opined that the Government should frame guidelines for a concrete and definite relationship between composite mills, powerlooms and handlooms.

The National Institute of Rural Development made a critical study on handloom industry and concluded that the New Development Plan for handloom sector is in the preliminary stages of implementation. It also opined that by concerning the magnitude of the problems encountered by the handloom sector, the organisation of the Commissioner for handlooms requires to be expanded with Regional Offices in the states where the industry is concentrated.

Kulkarni R.G. in his article on improved handlooms described how the industry evolved from times immemorial. The study felt that the handloom weavers are to be provided with improved tools which bring in
more return at least double the present level and recommended the sevagram loom as the best substitute for the existing pitloom.

The Commerce Research Bureau\textsuperscript{21} observed that though the handloom sector had been playing an important role in providing livelihood to lakhs of people, the conditions of the weavers were precarious, most of them being semi-starved. The average earnings of a weaver was estimated at Rs.3-50 ps per day and they do not get even this pitiable small income all throughout the year. Handloom weavers formed a significant component of the rural poor, the majority of them falling into the lowest income groups.

Sarada M\textsuperscript{22} found that handloom weavers are suffering from the problems of unemployment and under-employment, and have been living below poverty line. The weavers are facing the problem of scarcity of yarn and necessary inputs.

Sharma\textsuperscript{23} in his study stated that the Government made several programmes for the benefit of the handloom weavers, but the weavers did not receive any benefit from any sources because of the middlemen and the master-weavers haven taken away all the benefits, who could get yarn and raw material for subsidized rates in the names of weavers and appropriated the benefits. So, the Government introduced photo-pasted identity cards of the actual weavers to eliminate middlemen.

Arasaratham S.\textsuperscript{24} in his article narrated the historical facts pertaining to the industry, such as, relation between weaver and trader, caste, system prevailing in the industry, products produced, financial assistance provided for the industry, involvement of family members in general and children in
particular, marketing aspects, looms tax, socio-economic background of the weaver during 1752-1790.

Arulanandam in his study observed that various government policies towards handloom industry was a bundle of contradiction. It revealed that the Government have spent huge resources to agricultural sector and other large scale sectors, and neglected the handloom sector. It is the cause for the main problems of handloom sector and concluded that Government should give priority to prepare plans and allot huge resources to handloom sector.

Panday analysed that handloom industry constitutes one of the major sectors employing the largest number of people next to agriculture. In terms of economic impact on rural employment and income, the handloom industry occupies important place. From the stand point of consumers, it meets a substantial part of the market requirements and its production patterns are selective and finally turned to local and regional demand patterns.

Chakraborty S.M. in his study felt that the quality of the handloom products has declined, because of the hike in the raw material the weavers used cheaper quality of colours. As a result of this, the consumers preferred mill made cloths, and numerous weavers lost their employment and kept their looms idle. To avoid this types of situation, the Government should supply the raw material at subsidised rates.

Rajula Devi felt that the handloom industry in recent years has fallen into deeper crisis, owing to lack of adequate financial support. She observed
that the Government should take care of the handloom industry by allocating more resources for development of the industry.

Subramanyam throws light on many aspects of handloom weaving and weavers in 'East Godavari District'. However, the study is incomplete in certain aspects.

Venugopal’s study on "Marketing problems of Handloom Industry in Venkatagiri Town" was aimed at analysing the marketing operations and to identify the channels available through which the products of handlooms were distributed and sold. The study suggested measures to increase the marketing facilities.

Goel B.B. emphasized that there is need for financial assistance to handloom co-operatives. He felt that handloom co-operatives are facing the problem of lack of proper financing facilities. To provide financial facilities to the weavers and to the weavers co-operative societies, the Government should spend more resources.

Kalairasi has submitted a M.Phil dissertation on "The Growth and Development of Textile Industry in Tamilnadu - A case study of Binny" to the University of Madras. This study aimed at tracing the origin and development of Binny and also at analysing the labour problems, financial positions and current trends of Backingham and Carnatic mills. It is a case study and the analysis was confined to two cotton mills in Madras.
Sudhakar Rao B. and others\textsuperscript{33} studied in detail the employment generation capacity of the handlooms. They have estimated the underemployment and unemployment prevailing among handloom weavers. The study throws light on existing institutional support such as supply of raw-materials, credit and marketing of fabrics needed for the over-all development of handlooms industry. The study also suggested various measures and opined that both policy and programme should be related and are necessary to safeguard and strengthen employment factor in the industry.

Mahapatro\textsuperscript{34} made a modest attempt for a comprehensive and integrated study and economic analysis of the cotton handloom industry in Orissa. It was the first of its kind for Orissa, which was largely exploratory in nature. The study observed that the economic conditions of whereas were not sound and there existed a strong association between the weaver castes and weaving activity. The industry was found to be caste-based. After studying the economics of cotton handloom weaving, it was concluded that product diversification in favour of superior quality fabrics was desirable for enhancing the income of weavers; and this sector should be protected from the competition of the mill sector by suitable Government policies than to make it economically viable to ensure its healthy growth. Introduction of superior technology, the author felt, was vital for the survival of the weaver. Hence, handloom should be converted into powerlooms on a selective basis at the household level but in cooperative fold and in a phased manner.
Kotaiah identified several problems regarding the handloom industry and suggested several measures too minimise the problems.

Sarangapani B. surveyed two important centres in Coastal Andhra, namely, Mangalagiri and Pedana and studied the socio-economic conditions of handloom weavers in both regions and divided the industry under four categories of establishments.

1. Independent weavers.
2. Weavers working for master weavers.
3. Weavers working for co-operatives.
4. Coolie weavers.

The incidence of the poverty among the coolie weavers is more than that of others. The author suggested that the weavers should learn modern designs to improve their living conditions.

Rayudu made an attempt to collect statistics and other information relating to decentralised textile industry in cooperative sector in Andhra Pradesh to trace out the growth and development of cooperatives in producing fabrics. The analysis of the work dealt with the contribution of cooperative societies to capital invested, production and employment and to identify the problems and to suggest the measures necessary for improving their financial performance. This study evaluated the performance of cotton, silk and wood cooperatives, powerloom cooperatives, primary cooperatives and handloom cooperatives in India.
Bharatham K. felt that the industry should be developed under co-operative lines. He suggested several measures for the development of handloom co-operatives.

Chandra Sekhar Rao V. and Prasad V.V. felt that the handloom industry facing the problems of scarcity of yarn, raw-material and lack of sufficient marketing facilities to the handloom products. The weavers are also facing the problem of lack of proper financial facilities. The commercial banks failed to provide sufficient finance to the weavers. The weavers in the state required more financial assistance from the commercial banks. To provide the continuous employment, the weavers should be supplied the adequate yarn.

Rajya Lakshmi in her mandal level study analysed the socio-economic conditions of weavers registered with cooperative societies in Proddatur mandal of Cuddapah district. She made an attempt to present in socio-economic conditions of the weavers, to assess the economic aspects of the handloom industry and contribution of handloom industry to income and employment generation. She also laboured to highlight the problems confronted by the weavers cooperative societies.

The handloom industry in Tamil Nadu is facing the problem of lack of financial facilities. The commercial banks and district co-operative central banks failed to provide sufficient finances to the weavers co-operative societies. As a result of this, the co-operative movement in Tamil Nadu is a failure and more number of co-operative Societies are running dormant lines. At the same time, the unexpected growth of powerlooms is the cause of
creation of artificial scarcity of yarn. These is a great need to develop the industry hence the Government should supply yarn to handloom sector.

Noor Basha observed that in the year of 1991 the handloom industry has fallen into severe crisis and more number of weavers in the state are facing the problem of dire poverty and under-employment. More number of co-operative societies in the state were running dormant lines. To mitigate the problems of the industry, the Government should implement reservation of certain items for handloom sector and supply sufficient yarn to the handloom weavers.

Venkata Subbaiah K. found that the weavers were living below poverty line and the incidence of the dependence is very high among the weavers. To improve the living conditions of the weavers, the weavers should take the help of weaver service centres and learn modern skills. He has suggested that more number of service centres should be opened and proper training should be given to the weavers to adopt the modern skills.

Kotaiah Pragada felt that most of the weavers are leaving their profession and have diverted to alternative works. The root of the crisis is the 'New Textile Policy' which is in favour of large scale mills and powerlooms. The scarcity of the yarn is the cause for loss of employment. Kotaiah opinioned that the scarcity of the yarn was the cause and consequence for crisis in the industry. He suggested that yarn should be supplied to the weavers at 40 percent subsidy rates.
Vikram stated that the handloom industry has great importance in Indian Economy. To mitigate the problems arising in handloom industry, the 9th schedule of the constitution of India should be suitably altered. To encourage the items, levy of heavy additional excise duty on mill-made-cloth and subsidy to the handloom cloth are necessary.

Sanjiv Misra’s study on "India’s Textile Sector A Policy analysis analysed in evaluation of Government Policy in the Textile sector and made an attempt to assess its impact within objective of putting forth Concrete policy options for the future were also provided in this work.

The All India Handloom conference in New Delhi on 20 February, 1993 discussed the problem faced by in the country. In this conference, several delegates expressed their ideas on different problems of the industry and they come to conclusion to mitigate all the problems, the Government should supply yarn regularly to the weavers at subsidy rates. To provide employment continuously, the reservation items should continue and restrict the production of the powerlooms. Marketing centres should be opened in rural areas for the products of weavers. Additional spinning mills should be established to increase the production of yarn and supply it to the handloom sector.

Harish Govind M. analysed the conditions of the weavers of Balarampuram in Kerala State. Most of the coolie weavers are working under master weavers. They worked on an average for 12 hours a day and each person got a daily wage of Rs.25 only. The labour weavers income was not
sufficient and so, they had to depend upon master weavers. Most of the co-operative societies were run under the control of master weavers or hired weavers. The master weavers used to pocket the funds earmarked for handloom made available by the Central and State Governments and other agencies in the name of bogus members.

Sreenivasulu K. in his article provided a critical review of the provisions of 1985 Textile Policy; analysed the comparative position of handlooms vis-a-vis the mechanised mill sector and powerloom sectors since 1980s. The study also made an attempt to analyse the handloom crisis following the policy shift and dealt with schemes introduced as part of the Government's response to the handloom crisis and also analysed the implicit perceptions and prescriptions.

Shuji Uchikawa made an attempt to clarify the structural change of India's Textile Industry, focussing on exports of fabrics and garments. This work provides a proper understanding of the multi-mode of production from dynamic view point. Particularly in chapter IV he explains and presents a detailed picture of competition that exits among the four sectors of Indian Textile Industry - the Khadi, handloom, powerlooms and mill sectors. The last chapter was devoted to explain the influence of economic reforms particularly on textile industry.

An article published in 'Eenadu daily' reveals that handloom weaving is not an occupation. It is an inherited art, which represents our civilisation, style of living and hence weavers are not labourers but artists, they should
be sufficiently honoured by providing necessary support on all aspects of handloom weaving. However, many handloom weavers interviewed reported that these artists who have weaved the beautiful sarees which could be put in a match box, are now wondering on the streets in search of employment and migrating to other places to get employment as agricultural labourers. They have reported that price hikes of yarn, competition from powerlooms and the bogus cooperative societies were the chief factors that pushed them to the ranks of wage labourers.

A M.Phil dissertation was submitted by P. Poopathya entitled "Economics, of Powerlooms Industry with Special Reference to Export Performance and Prospects" to the Madras university, school of Economics, Madras in 1989. This study was conducted in Tiruchoungode area of Salem district, Tamil Nadu. The main objectives of the dissertation were to examine the structure and growth of powerloom units with special reference to types of looms, working capital, efficiency of production and labour productivity. The other objectives is to study the export performance fo powerloom units.

This study found that majority of the powerlooms were located in Municipal area of Tiruchengode and bonds of occupational caste are not strong. This was an area in which majority of the powerlooms are export units, and high quality of fabrics were woven. The labour productivity was found comparatively high in export units. There was inverse relationship between labour productivity and working capital. The units facing so many constraints like insufficient orders, late payment of sale proceeds and there were the dominance of local commission agents and frequent powercuts.
An article on "Export slump induces Crisis" dealt with the crisis through which the cotton textile industry is passing following a slump in exports of cotton textiles. The article presents that there is a paradoxical situation in India that output of all sectors was higher in 1998 against 1997. The increase in output, it was found, was mainly on account of the powerloom and handloom sectors which have participated in rise with their respective shares. They were taking the advantage of the increase in domestic demand for fabrics. Handlooms were specialising in furnishings and other items which were well received in overseas markets. The article observed that handlooms were facing the problems of use of dyes, which is influencing the decrease in exports.

Tirthankar Roy in his article entitled "Development or Distortion?: Powerlooms in India, 1950-1997" made an attempt to illustrate the history of powerlooms, during 1950-90, the development of powerlooms in post-reform period, the impact of Government Policy and the relative position of powerlooms to mill sector. He argued that the growth of powerlooms was not due to government intervention but it owes to general pattern of industrialisation. Recent policy changes having strengthened this pattern as well as exposed some of its critical weaknesses. The economic reforms strengthened them further. He felt that technology during the next decade will certainly have a singular impact - on the profile of the powerloom industry.
An article published in "Weaver" examined the role of powerlooms in Textile Industry and found that powerloom industry in Andhra Pradesh has a vast potentiality but the opportunities available were not made use of by the Government and hence the powerloom production of Andhra Pradesh is only 0.5 as against the national figure of 30.0 per cent. The article observes that Chittoor district in Andhra Pradesh occupies first place in powerloom weaving. Lack of servicing centres was the main reason for the slow growth of powerlooms in the state. Hence, Government should take necessary measures for the development of powerloom sector in Andhra Pradesh.

Tirthankar Roy tried to create a descriptive data base on powerloom factories in Tamilnadu and points out the potential uses of this material in answering questions about the role of powerlooms in economic development. In particular it was suggested that a study of Tamilnadu powerlooms illustrate two general propositions. First, in small firms constitute the most competitive segment in Indian industry after the recent trade reforms. The second is that decentralised production has strengths as well as serious weaknesses. He concluded that there exists a connection between exports, firm size; integration between production and trade and investment in quality control. He also observed that most progressive people in the powerloom industry today come from the younger generation of masta-weaver families.

Supriya Roy Chowdhury in an article observed that powerloom sector was characterised with remarkable heterogeneity in the structure of capital, forms of organisation, scale of operation etc. This study examined the role of state policy with regard to powerlooms, dynamics of relation of production and the political implications of the diversity of interests and capital associated with this sector in two selected areas in Karnataka - Dodhballapur
and Anekal. The findings of the study highlight the low wages, exploitative role of mercantile and usurious capital, low levels of production and profitability and casualisation of labour force.

A number of articles were published in "Eenadu" daily explaining the problems faced by powerlooms. Particularly two articles (26-07-1998, and 23-03-2000) highlighted the problems of powerlooms in Chittoor district. The powerloom sector has been caught in the problem of decrease in the exports and import of qualitative machines from abroad, shifting the dyeing units, supply of electricity at subsidised rates will have a significant impact on the development of powerlooms. Most importantly, the support of the Government is essential, if present distress is to be eliminated.

A Ph.D thesis (unpublished) was submitted to Sri Venkateswara University, by Gopal Chetty entitled "Problems and prospects of weaving industry in chittoor district and it has made an attempt to review the progress of weaving industry with a review of socio-economic conditions of the sample handloom weavers. This research work made a modest attempt to assess the employment potential and income generation in weaving and also evaluated the production pattern, cost structure and marketing practices with a study of problems of weavers in Chittoor district.

The study inferred that education has a positive effect on weaving particularly getting awareness in marketing conditions. Majority of the weavers are migrants and most of them have came from other occupation. The researcher observed that weavers with greater number of looms are getting higher incomes than others and there exit regional variations also. The study observed that on an average the weavers were getting 210-300
days of employment in a year and weaving a variety of clothes. Raw material cost was found to be high in the total cost of production. The produced clothes were marketed through APCO and cash sales dominates in total market. Other modes of sales like credit, cash advances and a combination of both cash and credit were found in the study area. It is observed that weavers in Chittoor district have been encountering many problems like fluctuating prices of yarn, irregular supply of raw materials. Particularly, the unregulated growth of powerlooms has given a threat to the development of handlooms in the district.

2.2 STATEMENT OF THE PROBLEM

No doubt, weaving occupies an important source of livelihood to rural, semi-urban and urban people. Inspite of labour absorbing nature, the weaving industry is in doldrums because of numerous reasons. Particularly handlooms are suffering from high cost of raw materials, low productivity, high incidence of underemployment, lack of adequate institutional support in marketing raw material, technology and management functions. All these bottlenecks are pushing the weaving families below the poverty line. The statistics reveal that as on 1990, there were 32,000 females actively engaged in handloom weaving but a survey conducted by a journalist of "Eenadu" revealed that there were only 1200 weaving families exit suffering from poverty as on November 2000. The handloom weavers in Varadaiah Palem, Govardhanapuram, Chavali Lingamanaidu palle, Maradavada, Santhaveluru, Kanipakam, Balasubramanyampeta, Ramakrishnapuram, Kancharapalem villages in Chittoor district are suffering from low wages of less than Rs.30/- per day. Majority of the powerloom weavers and handloom weavers are not conscious about their profession and in the conditions of distress they are
continuing their profession. The experience of the other districts in Andhra Pradesh is not a different one. In the year 1991, there were 72 starvation deaths occurred in our state. Recently, some more weavers had prone to commit suicide owing to their poverty and indebtedness and due to adverse marketing conditions for their products. In Prakasam district, 22 starvation deaths of weavers were reported.

In such a critical juncture faced by both the weaving industry and the weavers engaged in powerloom and handloom weaving, there is a great need to have an insight into the economics of weaving and to analyse the performance of these two segments of weaving industry. Hence, the present study has been initiated to make an indepth analysis of the conditions of both powerloom and handloom weavers particularly in Chittoor district of Andhra Pradesh. The researcher feels it necessary to take up the studies of this nature to erase the general fallacious feeling that powerlooms are the rivals to handlooms.

2.3 SIGNIFICANCE OF THE STUDY

The academic review of individual research works, and contributions and endeavours of different institutions reveals that there is a dearth of studies which analyse, explain and present a comparative economics of powerloom and handloom weaving in general and at micro level particularly. A reasonably good quantitative and qualitative database on different aspects of these segments remain lacking partly due to the general problems of inadequate coverage and extremely limited descriptive and intuitive knowledge about the powerloom sector restricted the research efforts in this field. Wherever the analytical works were attempted, they were confined only to stereotyped and counter intuitive ideas about these segments.
In spite of the much search to come across the comparative studies of powerlooms and handlooms, much literature could not be found particularly related to South India. The efforts reveal that Angadi (1976) has made an attempt to know the economics of handloom and powerloom industries in Karnataka State in 1976. The study was mostly restricted to a comparative analysis of costs in handloom and powerloom sectors and failed to examine the socio-economic conditions under which the weavers both in handloom and powerloom are working. No attempt was made in the study to know about the organisational and marketing structure.

Hence, to add some literature on comparative economics of both powerlooms and handlooms, the present study is undertaken. This study aims at filling the gaps of the study undertaken by Angadi (1976). Primarily the present study aims at examining the socio-economic conditions under which the weavers are operating. Besides, the present study lays much emphasis on studying the marketing structure both for the products of powerlooms and handlooms which were not dealt with in the study of Angadi.

Besides, there exists a general and popular feeling that powerlooms are the immediate rivals of handlooms. There were also statements made by knowledgeable persons in the field that the large influx of powerlooms had really syphoned off much of the benefits which were intended to be given to the handlooms sector by way of reservations in the fields of production. On the other side mill sector also complaints that powerlooms have made serious inroads into the working of the mill sector. But the fact stands that the powerlooms are not rivals either to mill sector or to the handlooms. Powerloom combines in itself the advantages of both mills and handlooms. It utilises the cheap electrical power and avail itself of the modern appliances.
in weaving. The small powerloom units which are not governed by the factory legislation certainly derives greater advantages. The powerlooms to whom the restrictions and reservations do not apply have proved to be the real beneficiaries of the reservations meant for the handloom sector. The concessions in the excise duty had also given sufficient fillip to the development of powerlooms and the favourable fiscal policy stimulated their growth. Even in relation to the handloom sector, the growth of powerlooms was not adventitious or artificial but was based on technical and economic factors. Apart from the higher earnings, which powerloom provides, it has like handloom, the merit of enabling the members of the family to live. The father and adult sons can work on the powerloom and the mother and daughters can engage themselves in reeling and pirn winding and the earnings of all are pooled into family income. To sum up, development represents a shift to higher level of doing things and refashioning the existing framework for efficient and increased contribution so that a wider and deeper social values are realised. The growth of powerlooms statifies this evaluation and handlooms represent the inherited art of weaving with rich skills and capabilities of the preceding generations. These two sectors have their own problems and impediments for their development and they are not rivals to each other. Hence, the problems of handlooms and powerlooms have to be given due attention and it becomes necessary to provide the required facilities for them to play their own side in the development of our economy.

Hence, the present study aims at presenting a comparative picture on different aspects of both handloom and powerloom weaving in Chittoor district of Andhra Pradesh.
Besides, given the scarcity of descriptive material and attempts to study and analyse the comparative economics, the primary motivation behind carrying out the present study is to develop a data-base on economics of both handloom and powerloom weaving in a weaving-dominant district, Chittoor. This motivation is further supported by the geographical location of the district with vast export potentialities due to the favourable situation of the district to the southern industrial giants Chennai and Bangalore.

2.4 OBJECTIVES OF THE STUDY

Keeping in view the significance and impediments to both handlooms and powerlooms in Chittoor district, the study primarily aims at an analysis of socio-economic and working conditions of weavers, which exert a significant impact on economics of cloth production. This is a modest attempt to make a factual contribution to the existing stream of knowledge about economic, social and operational conditions of weaving community and an academic insight into the problems and solutions to the problems of both handlooms and powerlooms.

More specifically the objectives of the present study are:

1. To review the growth of handloom and powerloom units in Chittoor district;
2. To present the socio-economic features of weavers engaged in powerloom and handloom weaving in the study area.
3. To study the capital structure of both the units;
4. To estimate the labour utilisation and to present a comparative analysis of employment generated in these units;
5. To assess the average cost of cloth production under both the technologies in comparison.

6. To illustrate the sales pattern and channels of marketing the cloth and to identify the efficient channels available for these units; and

7. To highlight the problems confronted by weavers engaged in handloom and powerloom weaving and to suggest some measures congenial for the betterment of handloom and powerloom weavers in the study area.

2.5 HYPOTHESES

For the present study the following null-hypotheses were formulated and tested.

1. Average cost of production of cloth is comparatively low in powerlooms.

2. Labour productivity is high in powerloom weaving compared to handloom weaving.

3. An increase in the size of the employment in weaving accompanies by an increase in output (Quantity of clothes produced)

4. Sales of clothes owing to quality of weaving, is comparatively high in powerloom units.

2.6 SAMPLING

The national handloom and powerloom census, 1995 indicates that in Chittoor district, the powerloom weaving activities are concentrated in only
9 mandals. Since, the present study is a comparative study of both powerloom and handloom weaving activities, the sample selection is confined to only 9 mandals in which both the activities are concentrated. The census showed that there are 5565 and 3029 households engaged in handlooms and powerloom weaving. Among the total 66 mandals in the district, the weavers are operating only in 35 mandals. Among these mandals, a heavy concentration of handloom weaving is found in 9 mandals, which represent 65.0 per cent of the total households. Similarly majority of the powerlooms (99.0 per cent) are concentrated in 5 mandals. Hence, the sample selection is purposively confined to these nine mandals. Multi-stage random sampling technique was adopted to select the sample weavers. Mandals being the first stage of selection, 9 mandals were selected. Villages in which the weavers are operating, form the second stage of selection and based on the loom-size, the ultimate simple-weavers were selected for the study. All the weavers, in these 9 mandals operating on less than 15 looms were classified into four categories viz. a. upto 2 looms, b. 3 to 5 looms, c. 6 to 10 looms and d. 11-15 looms. Much importance in selection is given to this categorisation. Totally 302 sample households were selected comprising 35.0 per cent of weavers with less than 2 looms, 30.0 per cent with 3 to 5 looms, 25.0 per cent with 6 to 10 looms and 15.0 per cent with 11-15 looms. To sum up, the present work relies on purposive multi stage random sampling technique. The mandal-wise distribution of selected sample weavers is presented in Table 2.1.
TABLE : 2.1

Mandal- Wise Distribution of Sample Weaving Households

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Mandal</th>
<th>No.of Weaving Households Selected</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Handlooms</td>
</tr>
<tr>
<td>1.</td>
<td>Nagari</td>
<td>5</td>
</tr>
<tr>
<td>2.</td>
<td>Narayanavanam</td>
<td>31</td>
</tr>
<tr>
<td>3.</td>
<td>Puttur</td>
<td>8</td>
</tr>
<tr>
<td>4.</td>
<td>Tirupati</td>
<td>4</td>
</tr>
<tr>
<td>5.</td>
<td>Sathyavedu</td>
<td>22</td>
</tr>
<tr>
<td>6.</td>
<td>Srikalahasthi</td>
<td>29</td>
</tr>
<tr>
<td>7.</td>
<td>Madanapalle</td>
<td>17</td>
</tr>
<tr>
<td>8.</td>
<td>Varadaiah palem</td>
<td>29</td>
</tr>
<tr>
<td>9.</td>
<td>Yerravari Palem</td>
<td>7</td>
</tr>
<tr>
<td>All Mandals</td>
<td></td>
<td>152</td>
</tr>
</tbody>
</table>

Source: Field Data

The sample households are scattered in 9 mandals and the number of selected households is made depending upon the total no of households engaged in weaving in a particular mandal. Highest concentration of selected weavers is found in Nagari mandal followed by Narayanavanam, Puttur, Varadaiahpalem and Srikalahasthi mandals.

Much attention was given to select the respondent weavers according to the number of looms they are plying. The following Table 2.2 presents the loom - size wise distribution of sample weavers.
The data in Table 2.2 reveals that equal importance was given for handlooms and powerlooms while selecting the sample weaving households. Since this is a research study primarily aiming at providing a comparative analysis, from each size of looms equal number of households were selected. This kind of equal representation facilitates to arrive at reliable and more suitable conclusions on different aspects of weaving.

2.7 METHODOLOGY

The primary aim of the present study, as mentioned earlier, is to present a comparative economics of both powerlooms and handlooms. This is an attempt to analyse the comparative state of these activities in relation to the following aspects.

a. Socio-economic features.
b. Capital structure
c. Average cost of production
d. Average utilization of labour, particularly family labour, and
e. Sales pattern with reference to channels available, their nature and mode of sales of cloth produced.
Keeping in view the above comparable aspects and the objectives set for the present study, a well structured schedule was designed and tested its suitability by a pre-field survey. The schedule was suitably modified in the light of the experiences and later was canvassed. The study relies both on primary and secondary data comprising the data collected from weavers, from the related offices, institutions and NGO, which are actively operating to provide assistance to weavers in the district. The data was collected for the year 1998-99 by adopting personal interview method. This data was further refined in the light of the discussions made with well-known weaver entrepreneurs like Paka Sanjeevi and Sri Singaiah and others. Different Government officials, managers of cooperative societies, dyeing units, and chairmen of NGOs were also consulted for proper checking of the data collected.

2.8 TOOLS OF ANALYSIS

The present study is based on field-level empirical data and wherever necessary secondary data were intensively utilised to supplement the analysis of primary data. Descriptive statistics like percentages and arithmetic mean were used extensively throughout the thesis to assess the proportions, intensity and importance of different aspects observed at district level.

To assess the significance of some key inputs like capital labour and cost of production, their respective indices were estimated, on the basis of their respective overall values per household for all sample households as the base (=100). These indices serve as a scale to measure inter and intrasize-group efficiency of both handlooms and powerlooms.

Particular emphasis was laid on estimating the level of efficiency of handlooms and powerlooms both in physical as well as financial terms. An analysis
of productivity, financial efficiency and operational efficiency was made to compare the performance of sample handlooms and powerlooms, at household level. Ratio analysis was carried out comprising some profitability, financial and Investment tests. These tests encompass the following performance indicators.

1. Return on Investment = \[
\frac{\text{Average Net Income generated per household}}{\text{Average total Investment Employed per Household}} \times 100
\]

2. Labour Productivity = \[
\frac{\text{Average Production of cloth (in Mts) Per Household}}{\text{Average Persondays of Employment of Labour Per Household}} \times 100
\]

3. Labour Efficiency = \[
\frac{\text{Average Net Income Realised Per Household}}{\text{Average Amount of Wages Paid to Labour Per Household}} \times 100
\]

4. Input-Output Ratio: Output measured in terms of production of cloth (in Mts) per unit of inputs employed in weaving the cloths.

This type of Ratio analysis serves as a feasibility study of weaving units and the loom size-wise analysis of comparative economics facilitates to identify the proper size of the units which is profitable. Hence, the loom size wise analysis was provided so as to select and assess the proper size of the weaving unit which ensures maximum utilisation of machinery and thereby reducing the cost of producing cloth.

Cobb-Douglas Production function (Log-Linear Model)

Besides all this quantitative analysis, an attempt is made to observe the relationship between the total value of cloths produced (u) considering it as dependent variable and its explanatory variables like yarn \(x_1\), colours \(x_2\),
labour($x_3$) and Electricity, Transportation and other inputs ($x_4$) as independent variable. A log - linear model (Cobb-Douglas Production Function) was run of the following form.

$$u = A x_1^{L1} + x_2^{L2} + x_3^{L3} + x_4^{L4}$$

$$\ln u = A_{na} + L_1 \ln x_1 + x_4 \ln x_4$$

$$u = a + L_1 x_1 + L_2 x_2 + L_3 x_3 + L_4 x_4$$

Where $u$ = Output during the reference period, (Total value of cloths produced in Rupees)

$x_1$ = Yarn (Value of Yarn in Rs. utilised in production of cloth)

$x_2$ = Colours (Dyes, Chemicals and colours in Rs. used in producing the cloth.

$x_3$ = Labour (Wages paid to weavers in Rs. employed in weaving the cloth.

$x_4$ = Electricity (Electricity charges; transportation and other costs in Rs. incurred for producing the cloth).

Besides all this Quantitative analysis, and attempt is made to test the significance of relation between some independent and explanatory variables by adopting linear regression technique

2.9 SCOPE, LIMITATIONS AND IMPLICATIONS

The present study confines itself to the comparison of economics of handlooms and powerlooms and to the products that the sample weavers are habituated to weave. The sample weavers were selected from only 9 mandals of a district in Andhra Pradesh and the data was collected for a single
financial year. The households selected comprise depending upon a. owner operated looms, b. looms operated by both owners and the hired-in labourers, c. looms operated by master-weavers and hired-in labourers and d. looms operated exclusively by hired-in labourers. The first two kinds of households are domestic in character employing up to five looms. The latter two categories are operated exclusively commercial enterprises with 6 to 15 looms. (Since the size is confined to 15 in this study). These units differ from the first category and it is difficult to obtain accurate data on cost of production, labour utilization and other related aspects due to lack of proper maintenance of accounts. However, attempts were made to collect data by the product groups like sarees, lungies, Zari Sarees, Cotton sarees, shirtings, Kerchiefs etc., so that the respondent may report reliable data on cost of materials used. Wages given to labourers also differ from one mandal to other mandal. Mandal - specific wage rates were collected and costs of materials for cloth production was cross checked by the information collected from cooperatives, and skilled and experienced weavers in the selected mandals. Particularly in the case of households plying less than two looms on an average, difficulties were experienced in ascertaining the cost of production as owners being self-employed, the operation costs mostly merged with the return on investment. In such cases, data for the weavers in the respective centers for determining the wage elements and the returns separately were collected and used after proper checking. Attempts were made to collect paid out costs only by deliberately eliminating imputed costs like depreciation, rent for owned working place, interest on working capital etc., However, wages for family labour were included in the average cost of production to estimate the labour cost and employment generated in both the activities. Reliable data of products raw materials costs etc, have been very meagre except in the case
of big sized units of powerlooms. Considerable efforts were put in therefore
by questioning and obtaining verbal information and verifying consistency of
data furnished by checking up with reference to other factors, like inputs,
wages etc. Therefore, the findings of this micro level study covering 9
mandals in the district may be irrelevant to other areas in the country
because the powerlooms, quite apart from their size differentials, lack
homogeneity in the types and ranges of machinery and equipment installed
and employed. In the medium sized looms (i.e., with looms size of 6 to 10
looms) the equipment differs from household to household. However the
findings and suggestions arrived at in this study may be significant and may
have practical implications in the policy formulations and for the development
of both powerlooms and handlooms.

2.10 PLAN OF THE THESIS

The analysis of the present study is presented in seven chapters. First
chapter presents the significance and importance of powerlooms and
handlooms, their growth and development during the planned era in general
and during the post-reform period in particular. Chapter II is devoted to
present the methodology adopted for the study, collection of data, scope,
limitations and chapter scheme of the study. The need of the study and
necessary review of research efforts made by the Government, research
institutions and individual researchers were also presented to establish the
need for the present study.

A brief profile the study area, Chittoor District in which the present
study was conducted is presented in Chapter III. This chapter also comprises
the details related to socio-economic, occupational, agro-industrial and
geographical features of the study area. Chapter IV describes the socio-
economic features of the sample weavers selected for the study. An analysis of locationel factors, literacy status, family size, occupational pattern, pattern ownership, mode of acquisition and the land holdings of the sample weavers constitutes the subject matter of chapter IV.

The detailed analysis of comparative economics of cloth production by handlooms and powerloom weaving forms the content of chapter V. The details of capital structure, labour utilisation, working capital employed, wage structure, average cost of production, sales pattern of the cloth produced under handloom and powerloom technologies and related aspects which facilitate to provide a comparative analysis are dealt with in chapter V.

Chapter VI is devoted to present a detailed analysis of the attitudes of sample weavers and the views expressed on different aspects and problems of weaving were processed and presented in this chapter which serves as a tool of qualitative analysis of the present research work.

The concluding chapter VII deals with the summary and findings of the study and offers some suggestions relevant for the betterment and development of both powerloom and handloom weavers.
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