CHAPTER VII

SUMMARY OF FINDINGS, SUGGESTIONS AND CONCLUSION

7.1 INTRODUCTION

The powerloom sector of Indian textile industry has been in existence for more than a century in India and has the advantages of availability of natural fiber and skilled labour. This has helped the powerloom sector to become globally popular. Trade in textile and clothing is a vital part of the world economy with many nations heavily dependent on this sector for foreign exchange earnings and employment generation. India’s powerloom sector has also been the backbone of the country’s economy and has strengthened it to retain and sustain its global competitiveness.

It commands respect as the largest employer, next to agriculture, providing employment to about 48 lakh people, directly. It account for 62 per cent of fabric production in India. The sector has witnessed a phenomenal growth during the last two decades in terms of installed loomage, production of fabric and export of fabric from powerloom sector. Powerloom sector’s fabric production is driven by the increasing export demand for fabrics and apparels from the foreign countries as well as by the local demand in India.
In India most of the powerloom fabric production is being carried out on job work basis. Hence “A study on powerloom sector of fabric textile industry in Tirunelveli District “has been undertaken.

In the present study an attempt has been made to analyse the powerloom sector of cotton textile industry with regard to the following aspects.

- Growth of looms, Production, Employment and Export of fabric from powerlooms sector.
- Socio-economic conditions of weavers, Motivational factors and Reason for selection of job work by the Powerloom weavers.
- Sources of job work and production of fabric by Powerloom weavers.
- Opinion of Powerloom weavers on various problem faced by them.

The primary data were collected through a well structured comprehensive Interview Schedule. The secondary data were collected from the office of textile commission, Textile committee, powerloom service centre, Powerloom development Export promotion council, publications of ministry of textiles, Journals Books, unpublished records and reports.
7.2 SUMMARY OF FINDINGS

7.2.1 Growth of Powerloom Sector in India

Growth of looms in powerlooms sector:

The growth history of India’s powerloom sector covering more than hundred years from 1904 to 2006 is an amazing one. In India there are 19.26 lakh powerlooms spread over different parts of India. During the year 1990-1991, the number of powerloom was 1044472 which increased to 19, 43, 892 during the year 2005-2006. It showed 86 per cent overall increase and an average increase of 5.7 per cent during the last fifteen years.

Looms in powerloom sector and mill sector:

A comparative analysis showed an average annual increase of 5.7 per cent in looms in the powerloom sector and 3.5 per cent average annual decline in looms in the mill sector.

The looms in powerloom sector had experienced a linear growth of 56771 looms per year while the looms in mill sector had declined by 5523.5 looms per year. The compound growth rate for the looms in powerloom sector was 3.87 whereas the looms in mill sector had a negative compound growth rate of 4.21.
Growth in production of fabric by powerloom sector

It was clear that the production of fabric during the period from 1990-91 to 2004-05 became more than double. In the year 1990-1991 the production of fabric was 13.348 million sq. meters which increased to 28325 million sq. meters in 2004-05.

The linear growth model showed that in the study period, for every loom increase in powerloom sector there was an increase of 0.020 million sq. meters in fabric production in the powerloom sector.

**Production of fabric by all sectors:** From the study it was found that the share of powerloom sector in 1990 -91 was 57.2 per cent, which increased to 62.4 per cent in 2004 -05. But during the same period the share of mill sector in fabric production decreased from 11.1 per cent to 3.4 per cent and the share of handloom sector also decreased from 18.4 per cent to 12.6 per cent for the given period. But in hosiery and khadi sector the fabric production increased from 13.3 per cent in 1990 -91 to 21.6 per cent in 2004 -05.

The fabric production in mill sector declined by 71.336 million meter per year The quadratic equation fits well with high R² value for the fabric production in handloom sector and it indicates that even though there is a growth in fabric production, it is growing in a decelerating rate. The linear equation fitted well for fabric production in
powerloom and hosiery and khadi sector. The fabric production increased by 1132.43 million sq meters in hosiery and khadi sector. The quadratic equation fitted well with high $R^2$ value and significant coefficient values for total production. The total production of fabric experienced a growth but in a decelerating rate.

The percentages of compound growth rates were -3.76, 2.14, 5.74, 8.21 and 4.98 in mill sector, handloom sector, powerloom sector, hosiery and khadi sector and total production by all sectors respectively. The compound growth rate in hosiery and khadi sector 8.21 per cent was higher than the other sectors of the textile industry. The growth rate of powerloom sector (5.74 per cent) was higher than the growth rate of (4.98 per cent) total production of fabrics by all sectors.

**Growth of employment:** It was obvious from the study that during the year 1990-91 powerloom sector provided employment to 26,11,180 person, and the subsequent year, it increased to 26,37,415 person. It showed 8.66 per cent growth when compared to the previous year. But during the next year (1992-93) the growth percentage decreased to 5.74 per cent. The next high growth rates were in the year 1997-98 and 2003-04 was 8.37 and 8.51 respectively.
**Growth of export:** During the study period the export of powerloom increased by 390 per cent. The highest growth (49.48 per cent) was during the year 1993-94 and the lowest growth (4.95 per cent) was in the year 2001-02.

**Labour productivity in powerloom sector:** The study revealed that the labour productivity had increased from 5111.86 sq. mtrs to 6133.02 sq.mtrs during the period 1990-91 - 2004 -2005.

**Growth of powerloom in selected states:** From the study it was found that the average growth per cent of Maharastra for the given period was 5.75 per cent. The growth rate for Tamil Nadu was 5.64 per cent while the growth rate for Gujarat was only 0.66 per cent. The overall growth per cent of total looms in powerloom sector for the given period was 3.94 per cent. The compound growth rates of Maharastra and Tamil Nadu were higher than the all India compound growth rate.

**7.2.2 Job Work Powerloom Weavers**

**Age of powerloom weavers:** Most of the weavers belong to a young age group (less than 40 years) had their own newly started powerloom units while the relatively more aged weavers (above 50 years) had inherited their units from their elderly family ancestors.
Educational qualifications of the weavers: The study revealed that the most of the newly started powerloom units belonged to weavers who were relatively better educated than those in the other categories.

Gender and marital status of the weavers: A larger proportion of the newly started powerloom weavers were found to be married. Only 11 weavers who had inherited their powerloom units were found to be unmarried.

Community of weavers: Regarding the community of weavers, most of the weavers were of the backward class.

Family structure and the family size of the weavers: From the study it was found that most of the (52 per cent) newly started powerloom unit owners belonged to the nuclear family structures, while the inherited owners (78.4 per cent) of the units were found to be under the joint family structure. In the case of family size of the weavers, most of the weavers have a family consisting of up to four members.

Experience of the weavers: The study revealed that 90 per cent of the weavers who owned inherited powerloom units and 90 per cent of those who owned newly started units possessed an experience of more than 10 years.

Motivational factors of the weavers: According to Garret’s ranking technique the ‘high profit potential’ was the topmost among the various
motivational factors. The factor, which got the next score, was the ‘growth opportunities factor. “The low investment” factor, got the third position from the powerloom weavers.

**Age of the weavers and motivational factors:** The study disclosed that the ‘high profit potential’ was found to be the most important motivational factor for the weavers who were in the age group of below 40 years category. The 40 to 50 years age group category had considered the factor ‘low investment’ as the chief motivational factor whereas weavers in the ‘above 50 years age category looked upon more growth opportunities’ as the foremost motivational factor.

**Levels of education and motivational factors:** It was clear from the study that the in the educational category of up to the fifth standard had ranked the factor ‘high profit potential’ as the most important motivational factor. The with an educational status level of 6th to 10th standards and those in the above 10th standard categories had ranked more ‘growth opportunities’ as the foremost factor of motivation.

**Ownership structure and motivational factors:** The sole proprietor weavers and the joint family property ownership weavers had considered the ‘high profit potential’ as the first and foremost motivational factor which had inspired them to start powerloom units. The rank correlation coefficient value of 0.8 had shown a positive
correlation in the ranking patterns of the two categories of the powerloom weavers.

Weavers engaged in other business activities and motivational factors: The weavers who were engaged in other business activities cited ‘growth opportunities’ as their most important motivational factor, while weavers who were engaged only in the powerloom business had stated ‘high profit potential’ as their foremost motivational factor for starting new units.

Experience of weavers and motivational factors: The rank correlation co-efficient value of 0.6 had disclosed a positive correlation in the ranking patterns of the upto ten years and more than ten years categories of the powerloom weavers.

Investments of weavers and motivational factors: The motivational factor of more ‘growth opportunities’ was the first and foremost factor that had motivated the weavers who had invested up to Rs.1 lakh and invested above Rs.2 lakhs. But the weavers who had invested a capital of Rs. 1 lakh to Rs.2 lakhs had given the first rank to the motivational factor of ‘high profit potential’

Number of looms of weavers and motivational factors: The study revealed that the weavers having upto four looms and those having five to eight looms had selected the ‘high profit potential’ as the
primary and most important factor. The weavers who were having more than eight looms had chosen the factor ‘more growth opportunities’ as the first and most important motivational factor.

**Ownership structure of powerloom units:** From the study it was found that 51 per cent of the selected weavers who had inherited their units were under the sole proprietorship category, whereas 49 per cent of weavers who had inherited their units belonged to the category of joint family type of ownership.

**Investment and number of looms:** Among 50 selected weavers who had made an investment of up to one lakh, 88 per cent of the weavers were having up to four looms. In the case of powerloom units with a capital of 1 to 2 lakhs, 66 per cent of the weavers were operating up to four looms. Among the last category of weavers who had invested above two lakhs 48 per cent of the weavers were having 9-12 looms. With the increase in the investment, the loom capacity also has increased.

**Investment and types of looms:** It was clear from the study that among the 157 weavers who possessed looms with attachments, 88 weavers had made an investment varying from Rs.1 to 2 lakhs, and 41 weavers had made an investment exceeding the amount of Rs.2 lakhs. In the case of looms without attachment, 22 weavers had made an investment of
 upto Rs. one lakh, 18 weavers had made an investment varying from Rs. one to two lakhs and only 3 weavers had made an investment of above Rs.2 lakhs.

**Investment and number of employees:** Among the 50 weavers who had made an investment of upto one lakh, 48 per cent of the weavers were having employees up to four. In the case of units having an investment varying from Rs.1 to 2 lakhs, 71.7 per cent of the units were employing up to 4 workers. In the above two lakhs investment category, the majority of the weavers (41 per cent) were having more than 8 employees. Thus, more investment has created more employment.

**Number of employees and types of looms:** The study revealed that 83 weavers were having looms with attachment employing up to four labourers while 35 weavers having looms with attachment were employing workers varying from 5 to 8, and 39 weavers were providing employment to more than 8 workers. Looms with attachment needed more employees than looms without attachment.

7.2.3 Production of Fabrics by Powerloom Weavers

**Varieties of fabrics produced by weavers:** It was observed from the study that out of 126 newly started powerloom unit weavers, 43 weavers produced Sarees, 36 weavers produced lungies, and the
remaining 21 weavers produced to kerchiefs and towels. In the case of inherited unit weavers, 29 weavers produced sarees, 16 weavers produced lungies, and another 29 weavers manufactured kerchiefs and towels.

**Reasons for selection of job work:** According to the Garret ranking result, the ‘higher earning than own production’ was the topmost reason for selecting job work. The reason which got the next score was ‘the lack of marketing facilities’. The ‘less market demand’ got the third position as pointed out by the weavers.

**Experience and reasons for selection of job work:** From the study it was found that higher earnings than own production got first place from both the categories of powerloom weavers, while ‘the less market demand’ secured second position from the weavers having more than 10 years of experience ‘Lack of marketing facility’ occupied second position from the weavers having experience less than 10 years.

**Ownership pattern and reasons for selection of job work:** It was obvious from the study that the reason ‘higher earning than own production’ got first rank from both groups of weavers, whereas the seasonal market demand secured second place from sole proprietorship
weavers. The reason of ‘lack of marketing facility’ was relegated to the fourth position by joint family ownership weavers.

**Mode of starting and reasons for selection of job work**: There is no difference in the first rank and second rank to the reasons ‘higher earnings than own production’ and ‘lack of marketing facility’ from newly started unit weavers and inherited unit weavers, while the ‘shortage of working capital’ secured third place from inherited unit weavers and fourth rank from newly started unit weavers.

**Sources of job work**: Among the newly started powerloom units weavers and inherited powerloom unit weavers, similar percentage (40 per cent) weavers received their job work from manufacturers.

**Ownership structure and sources of job work**: The study revealed that the 42 per cent of weavers who belonged to sole proprietor ownership got their job work from manufacturers. In the case of joint family ownership weavers, 41 per cent of weavers depended on powerloom co-operative societies and export dealers for their job works. The chi-square test results showed that the ownership structure and sources of job work are independent.

**Income and sources of job work**: The chi-square test results showed that the calculated value (16.10) is more than table value (9.45) at 5 per cent level of significance, and hence the null hypothesis the income of
the weavers is not influence by the sources of job work is rejected. Therefore, it was concluded that the income of weavers is influenced by the sources of job work.

**Number of looms and sources of job work**: The study revealed that most of the weavers having looms above four, got their job work from manufacturers. The chi-square test result proved that the source of job work of the weaver was influenced by the number of looms operated by the weavers.

**Type of looms and sources of job work**: Among the 157 weavers who belonged to looms with attachment category, majority (66 weavers) of the weavers have received their weaving job work from manufacturers. In the case of looms without attachment of weavers have received their job work from powerloom co-op societies and export dealers. The chi-square test result proved that the type of loom of the powerloom weavers had not influenced the sources of job work of weavers.

**Investment and varieties of fabrics produced**: The majority of the weavers in the category of investment upto one lakh and above Rs.2 lakhs produced sarees, and the weavers whose investment was from Rs1 to 2 lakhs produced kerchief and towel varieties. The chi-square
result proved that the investment and varieties of fabrics produced by weavers were not independent.

**Availability of job work:** Among 200 weavers, 35.5 per cent of the weavers have received their weaving job work upto 8 months, 30 per cent of the weavers have received their job work for a period of 9-10 and 34.5 per cent of the job weavers got job work for a period more than 10 months.

**7.2.4 Problem of Powerloom Weavers**

**Production problem:** The study revealed that the ‘more repairs in looms’ was the most important problem cited by the powerloom weavers. ‘Unable to produce new varieties’ was the second most important problem selected by the said weavers. ‘The low loom productivity’ was the third production problem noted by the weavers. ‘High power consumption’ and ‘high maintenance cost of looms’ were fourth and fifth production problem pointed out by the job work powerloom weavers in the study area.

**No of looms and production problem:** It was obvious from the study that the all three categories of weavers had selected ‘more repairs in looms’ as their vital production problem. But unable to produce new varieties was the second most important problem cited by the weavers having looms up to 4, and five to eight loom weavers. The low
productivity of looms was the second most important production problem in the view of the weavers of 9-12 looms. The Kendall co-efficient concordance test results showed that the different looms categories of weavers did not rank the problem similarly.

**Types of looms and ranking of production problem:** ‘The more repairs in looms’ was the foremost production problem pointed out by both the categories of weavers. The looms without attachment weavers have selected ‘low productivity of looms’ as their second important problem whereas ‘unable to produce new varieties’ was the second important problem cited by the looms with attachments weavers. The rank correlation co-efficient value of 0.8 had shown a positive correlation in the ranking pattern of the two categories of powerloom weavers.

**Variety produced and ranking of production problem:** According to the Kendall co-efficient concordance test, the null hypothesis was accepted. Hence it was concluded that the ranking of problem by the variety-wise categories of did not differ significantly.

**Investment and ranking of production problem:** All the three categories of weavers gave the first rank for the “more repairs in the looms”. But they differ in second rank selection. Unable to produce new varieties was the next important problem selected by the weavers
having investment of of less than one lakh and Rs.1 to 2 lakhs. The weavers with investment above Rs.2 lakhs had selected ‘low productivity of weavers’ as the second most important problem. The Kendall co-efficient concordance test results showed that the different investment categories of weavers did not rank the problem similarly

**Labour problem:** The ‘shortage of trained labour’ was the most important labour problem ranked by the weavers. They gave second rank to ‘advance’. The problem of ‘high labour turnover’ secured third place while ‘not punctual in work’ was put into the fourth position by the powerloom weavers. The problem, ‘unskilled labour’ was the last problem cited by the weavers.

**Number of employees and ranking of labour problem:** The shortage of trained labour was the foremost important problem cited by the weavers having employees up to four. While in the case of weavers having employees five to eight, ‘unskilled labour’ was chosen as their most important problem, the weavers having employees more than eight pointed out that the ‘more wage advance’ was their most important problem. The Kendall co-efficient concordance test results proved that the ranking pattern did not differ significantly among the employee wise categories of weavers.
Number of looms and indices of labour problem: According to the Kendall co-efficient concordance test results the different looms categories of weavers rank the problem similarly.

Types of looms and ranking of labour problem: Both the loom categories of weavers had given first rank to shortage of trained labour. The weavers who belonged to looms with attachment gave second rank to ‘more wages advance’ while the same problem ranked was third by the weavers operating looms without attachment. The rank correlation of 0.46 showed moderate positive correlation between weaver categories on the basis of types of looms and ranking pattern of labour problem.

Variety produced and ranking of labour problem: All the categories of weavers except towel producers gave the first rank to ‘shortage of trained labour’. The towel producing weavers gave first rank to ‘more wage advance’ due to more demand of specialized worker for producing terry towel variety. The Kendall co-efficient concordance test results proved that the ranking pattern did not differ significantly among the variety-wise categories of weavers.

Job work problem: The delay in payment of conversion charges was the most important problem selected by the powerloom weavers. They had given second rank to ‘job work not available continuously’. A low
conversion charge was the third job work problem cited by the weavers. ‘The penalty for damages’ was the last job work problem of powerloom weavers.

**Number of looms and of job work problem** : The weavers who own 9-12 looms had ranked ‘low conversion charges’ as their most important job work problem while the same problem got second rank from five to eight loom category of weavers and third rank from the weavers having looms up to four. The weavers group of five to eight looms category had ranked first ‘the problem of delay in payment’ whereas the other categories weavers pointed out the same problem as the second important problem.

**Types of looms and ranking of job work problem** : The weavers with looms with attachment selected the problem of ‘not available continuously’ as their foremost job work problem. But the same problem was ranked fourth position by the weavers operating looms without attachment. ‘Delay in payment’ got first rank from the weavers operating looms with attachment, while the same problem was allotted second place by the weavers who own looms with attachment. The rank correlation result of -0.2 showed that there was a low negative correlation between weavers category on the basis of types of looms and ranking pattern of job work problem.
Sources of job work and ranking of job work problem: The weavers who got job work from master weavers and powerloom co-op society had given first rank to ‘job work not available’ continuously and the same problem was given third place and fourth place by the weavers getting job work from manufactures and export dealers respectively. The calculated value of $S(10)$ is less than the table value (49.5) and thus the null hypothesis was accepted. It is inferred that the ranking pattern did not differ significantly among different sources of job work categories of weavers

Varieties of fabrics produced and ranking of job work problem: The problem of ‘job work not available continuously’ got first place from the weavers who produce saree variety and kerchief variety while the same problem secured third and fourth places respectively from the weavers producing towels and lungies varieties of fabrics. Delay in payment got first place from the weavers producing towel and lungi varieties and the same problem secured second and third positions respectively from the weavers producing saree and kerchief varieties. The Kendall co-efficient concordance test results showed that the ranking pattern did not differ significantly among different variety-wise categories of weavers.
**Raw material problem:** The shortage of yarn count was the foremost raw material problem cited by the powerloom weavers. Yarn not available in time got second place and low quality of yarn was placed in the third position by the said weavers. More wastage of yarn secured the fourth position and shortage of yarn got the last rank from the powerloom weavers.

**Sources of job work and ranking of raw material problem:** The ‘shortage of yarn count’ secured the first rank from the weavers who got job work from manufacturers. The same problem was assigned second place by the weavers who got job work from master weavers. ‘Low quality of yarn’ was ranked first by the weavers of powerloom co-op society. The Kendall co-efficient concordance test results showed that the ranking pattern did not differ significantly among different sources of job work-wise categories of weavers.

**Varieties of fabrics produced and ranking of raw material problem:** The problem of ‘low quality of yarn’ as the foremost raw material problem was agreed upon by the who produced kerchief and towel varieties. The same problem got fourth place from the weaver who produced saree and lungi varieties. ‘The shortage of yarn’ got first place from the weavers of saree and Lungi varieties while it secured third and fourth places from the weavers who produced towel and kerchief
varieties respectively. ‘Yarn not available in time’ got the second place from all the four categories of weavers. ‘More wastage of yarn’ secured the third place from the weavers producing saree and kerchief varieties. The Kendall co-efficient concordance test results showed that the ranking pattern did not differ significantly among the variety-wise categories of weavers.

7.3 SUGGESTIONS

From the observations made during the study and from the opinions of the job work powerloom weavers, the following suggestions are made to the powerloom sector of cotton textile industry.

- The looms are very old in the study area. These looms are not useful to produce new design and not suitable for modernisation. Hence the Government should provide interest free loans to small powerloom weavers for the immediate replacement of existing looms.

- The Government should provide job work to the job work weavers to the maximum extend through powerloom co-operative societies with reasonable conversion charges.

- A special training programme should be arranged for the benefit of the powerloom workers for increasing their skills on producing new varieties of fabrics.
• Like the handloom sector, the list of varieties especially for powerloom sector should be allotted.

• The difficulties for getting TUFS should be removed.

• There was no awareness on modernisation of powerloom among small scale job work powerloom weavers. Hence the Government should take necessary steps to make the weavers aware of modernisation of powerlooms.

• There should be uniform conversion charges for weaving job work of similar varieties. The Government should regulate the conversion charges and fix the minimum charges for the job work.

• Undeclared power cut should be banned. The power tariff should be uniform throughout the nation.

• The Government should establish a separate agency for redressing the problem of small scale powerloom weavers.

• The Government should encourage the small weavers to be a member of powerloom co-operative society.

• The powerloom co-operative society should be free from political intervention. A separate act is needed for protecting the powerloom co-operative societies.
• The government should arrange the quality spare parts for the benefit of the weavers.

• High labour turnover should be removed through registration of powerloom workers with the powerloom weavers association in the local area and by providing proper incentives.

• High wage advance should be restricted through agreement with workers union.

• To increase the productivity of the weavers, new modernized looms should be given through powerloom weavers co-operative societies on long run credit basis.

• High density electric power should be given to the powerloom through separate transformer facilities without interruption.

• For removing the problem of shortage of trained labour, the Government should establish a industrial training centres for giving training to the unemployed youth.

• Modern sizing mills should be established by the Government for the benefit of small scale powerloom weavers.

• Powerloom service centres should be active. It should provide all technical assistance to the needed weavers.
7.4 CONCLUSION

The present study would help to understand the dominant growth of powerloom sector in India. It also gives an overall picture of the small scale powerloom, units along with their problem. This would provide an insight to the policy makers to formulate suitable policy for the growth of powerloom sector.

The following areas are suggested for further research:

1. A comparative analysis of handloom weavers and powerloom weavers.
2. Export of fabrics by powerloom sector.
3. Socio-economic conditions of powerloom weavers.
4. Modernisation of powerloom sector.