CHAPTER – V
FINDINGS, SUGGESTIONS AND CONCLUSION

5.1 FINDINGS

5.1.1 FINDINGS OF SIMPLE PERCENTAGE ANALYSIS

Gender

It is found from the analysis that the majority (72%) of the respondents are male.

Age

It is interesting to note that the majority (42%) of the respondents who are working in the textile units belong to the age group of 26-35 years.

Marital Status

It is observed that the majority (72%) of the respondents were married

Education

It is found that the majority (68%) of the respondents are educated upto school level

Technical Qualification

It is interesting to note that the majority (81%) of the respondents working in textile units are not technically educated.

Experience

It is found that the majority (41%) of the respondents are having experience in textile units for 5-10 years.

Monthly Income

It is found that majority (45.22 %) of the respondent’s monthly income is less than Rs.10,000.
Type of Technology

It is found that the majority (90%) of the respondents are working with semi-automated technology. Only 10% of the respondents are found to be working with automated technology.

Need of Safety Requirements

It is found that majority (52%) of the respondents are not having any safety measures while working with technology.

Type of Technical Process

It is found that the majority (46.3%) of the respondents are working in spinning mills and 35% of the respondent are working in the stitching unit.

Technically Trained Labour

It is interested to note that majority (60%) of the respondents are not technically trained labour, only 40% of the respondents are technically trained before joining the textile unit.

Participation of Skill Development Programmes

The majority (59%) of the respondents have already participated in the skill development programmes.

Type of Training Programmes

The majority (60%) of the respondents have undertaken practical training from their unit.

Frequency of Training Needs

The majority (63.4%) of the respondents frequently are need in of training programmes every six month once.
Duration of Skill Development Programmes

The majority (42%) of the respondents have already attended one week Skill development Programmes.

Training programmes under the government training centres

The majority (91%) of the respondents have not attended any training programmes sponsored by the government training centres.

Adequacy of Skill Development Programmes

The majority (81.7%) of the respondents need skill development training programmes to update their skill and knowledge in regard to technological development.

Effective of skill development methods

The majority (71%) of the respondents have said that the method of skill development was effective.

Workload after attending the skill development training programmes

The majority (51%) of the respondents feel that workload is quite low after attending the skill development training programmes.

Improvement Level after Attending the Skill Development Training Programmes

It is found that the majority (41.4%) of the respondents are feeling High Improvement after attending the skill development training programmes from their organization.
5.1.2 FINDINGS OF FRIEDMAN’S TEST

- The analysis from the Friedman test indicates the “Timely delivery” was the first impact in the organization due to technology automation. It is followed by the factors “There is rise in demand for skilled labourers” and “Wastage and depreciation have been reduced considerably”.

- It is noted from the personal impacts of labour in textile units due to technology which factor is more influencing to the respondents the result was found from the Friedman test is that “Process is simplified and thus easy to work” was ranked first. It is followed by the factors “Efficiency and productivity has increased” and “The working effectively without much of efforts”.

- It could be noted from the Impact on Implementation of Skills Acquired during the Skill Development Programmes “Able to much about the automated technology and operate machines” was ranked first. It is followed by the factors “Able to attend/rectify small technical problems” and “Wastage of resources has been reduced”.

5.1.3. FINDINGS FROM AVERAGE SCORE

- From the average score analysis with respect to the impact of labourers due to technology automation that 11 factors, the highest Mean Percentage score (80.83%) was obtained from the factor of “Timely Delivery”. Whereas the lowest Mean Percentage score (71.02 %) was obtained by the factor on “Able to compete with the global players”.

- From the average score analysis of Personal impact of labourers due to technology automation that among 8 factors, the highest Mean Percentage score (84.04%) was obtained for the factor “Process is simplified and thus easy to work” and the
lowest Mean Percentage score (77.01%) was obtained for “It helps to enrich my knowledge and skills”.

From the analysis it is found that the impact on implementation of the skills acquired during the skill development programmes among the 6 factors, the highest Mean Percentage score (87.48%) was obtained from the factor “Able to know much about the automated technology and operate machines” and the lowest Mean Percentage score (82.90 %) was obtained for “able to work safely”.

From the analysis it could be found that the satisfaction level after attending the skill development programmes, the highest Mean Percentage score (92.10%) was obtained for the factor “updating technical skill and knowledge” and the lowest Mean Percentage score (83.69 %) was obtained for “work related stress reduction”.

From the analysis it could be found that impact of skill development programmes after attending the skill development programmes, the highest Mean Percentage score (90.92 %) is obtained for the factor “self- confidence” and the lowest Mean Percentage score (45.61 %) was obtained for “Accident reduction”.

From the analysis it could be found that overall impact on technology automation the highest Mean Percentage score (84.77 %) was obtained from the factor “Impact on skills acquired during the skill development programme” and the lowest Mean Percentage score (71.86 %) was obtained for “Impact of skill development after attending the skill development Training programme”.

5.1.4. FINDINGS FROM ANOVA TEST

The result of ANOVA test proves that there is highly significant difference between the impact factors (“More Production in lesser time”, “Quality of products is improved”, “Timely delivery”, “Able to compete with the global players”,
“Attractive salary for labourers”, “The headcount of employees has been reduced”, “Wastage and depreciation have been reduced considerably”) in textile units and districts of Coimbatore region.

- From the analysis of ANOVA test it is proved that the significant difference between the impact factors of (“Quality of products is improved”, “Able to compete with the global players”, “Attractive salary for labourers”, “Maintenance and breakdowns have come down”) and the age group of people in textile units.

- It could be found from the ANOVA test proved that there is significant difference between the impact factors (“More Production in lesser time”, “Quality of products is improved”, “Timely delivery”, “Textile firm has gained reputation in the world market”, “Able to compete with the global players”, “Attractive salary for labourers”, “The headcount of employees has been reduced”, “It encourages the generation of high quality jobs to maintain international competitiveness”, “Wastage and depreciation have been reduced considerably”, “There is rise in demand for skilled labourers, Maintenance” and “breakdowns have come down”) and working experience of labourers in textile units.

- From the ANOVA test proved that significant difference between the personal factors (“Process is simplified and thus easy to work”, “Workload has reduced considerably”, “There has been hike in salary but restricted opportunity for promotion”, “Efficiency and Productivity has increased”, “Able to work effectively without much of efforts”, “No unnecessary gossip”) and districts.

- From the ANOVA test it is proved that significant difference between the personal factors (“It helps to enrich my knowledge and skills”, “Process is simplified and thus easy to work”, “Workload has reduced considerably”, “There has been hike in salary but restricted opportunity for promotion”, “Able to work effectively without much of efforts”, “No unnecessary gossip”) and districts.
much of efforts”, “No unnecessary gossip”) and age group of the labourers in textile units.

- From the ANOVA test it is found that **significant** difference between the personal impacts of labourers in textile units (“Process is simplified and thus easy to work”,) and with respect to Educational Qualification.

- From the ANOVA test it was found that there is a **significant** difference between the personal impacts of labourers due to technology automation (“It helps to enrich my knowledge and skills”, “Process is simplified and thus easy to work, Efficiency and Productivity has increased, The working schedule and the work place environment are conducive, Able to work effectively without much of efforts, No unnecessary gossip”) and with respect to working experience of labourers.

- From the ANOVA test it is found that there is a **significant** difference between the level of impacts on implementation of skills acquired during the skill development programmes (“Able to know much about the automated technology and operate machines”, “Able to attend/rectify small technical problems”, “Able to complete the task within the time frame”, “Able to understand the intricacies of the work process very clearly”) and with respect to district.

- From the ANOVA test it is found that there is a **significant** difference between the level of impacts on implementation of skills acquired during the skill development programmes (“Able to attend/rectify small technical problems”) and with respect to age group.

- From the ANOVA test it is found that there is a **significant** difference between the level of impacts on implementation of skills acquired during the skill development programmes (“Able to understand the intricacies of the work process very clearly” and with respect to the Educational Qualification.
From the ANOVA test it is found that there exists a **significant** difference between the factors of satisfaction after attending the skill development programmes (“Updating technical skill and knowledge, Organizations Production and Quality, Workload reduction, Accidents reduction and safe work environment, reduced raw material wastage, Good relationship between supervisor and the employees, Increased salary & Work related stress reduction”) and with respect to district.

From the ANOVA test it is observed there exists a **highly significant** difference between the level of satisfaction after attending the skill development Programmes (“Workload reduction & Increased salary”) and with respect to age group.

From the ANOVA test it was found that there is a **highly significant** difference between the satisfaction after attending the skill development Programmes (“Awareness about the new technology”) and with respect to education.

From the ANOVA test it is found that there is a **significant** difference between the satisfaction after attending the skill development Programmes (“Reduced raw material wastage, Good relationship between supervisor and the employees, increased salary, target achievement” is highly significant difference in the mean scores was found with respect to experience.

From the ANOVA test it was found that there is a **significant** difference between the impact after attending the skill development programmes (“Learning capacity”, “Self-confidence, Performance, Quality, Reduction in wastage, Accident Reduction, Time management, Stress management) with respect to district.

From the ANOVA test it was found that there is **significant** difference between the impact after attending the skill development programmes (“accident reduction”) and education qualification of the labourers in textile units.
ANOVA test shows that there is highly significant difference between the level of impact on technology automation (“Personal impacts due to technology automation, Impact on skills acquired during the skill development programme, Satisfaction about skill development programmes” and district.

It is found the analysis from the ANOVA test that there is a highly significant difference between the level of impact on technology automation (“Overall impacts in organization due to technology automation, Personal impacts due to technology automation, Impact on skills acquired during the skill development programme, Satisfaction about skill development programmes & Impact of skill development after attending the skill development Training programme”) and age group of the respondents working in the textile units.

5.1.5. FINDINGS FROM CHI-SQUARE TEST

It could be found from the Chi Square test, there is highly significant association between the need of safety requirements for automated technology and demographic variables (Districts and age).

From the Chi Square analysis it is found that there is significant association between the type of technical process working and demographic variables and demographic variables (Districts, Gender, Age, Educational qualification, Monthly income and Type of technology used in organization).

The Chi Square test proved that there is significant association between the technically trained labour and demographic variables (Districts, Gender, Educational Qualification and Type of technology used in organization).

The Chi Square analysis found that there is significant association between the participation in skill development programmes and demographic variables
(Districts, Age, Educational Qualification and Type of technology used in organization).

- From the Chi Square test found that there is significant association between the kind of training provided for labourers in textile units and demographic variables (Districts, Age and Type of technology used in organization).

- The Chi Square analysis found that there is significant association between the frequency of training needed and demographic variables (Districts, Age, Educational Qualification and Experience).

- The Chi Square analysis found that there is significant association between the duration of skill development programmes and demographic variables (Districts, Gender, Age, Experience and Monthly income).

- It could be found from the Chi Square analysis found that there is significant association between the workload after attending the skill development programmes and demographic variables (Districts, Gender, Age, Educational Qualification, Experience and Monthly income).

5.1.6. FINDINGS FROM GARRETT RANKING

- It could be found from the Garrett ranking test among the five factors “To update technical skills and knowledge” was ranked first. It is followed by the factors “To improve work efficiency” and “To improve the career prospects”.

- The Garrett ranking test was used to found result among the five factors “To achieve work targets” was ranked first. It is followed by the factors “To sustain/survive in the work place” and “To reduce the raw material wastage and machine depreciation”.

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From the Garrett ranking test was used to found the result among the 8 factors “Low level of production” was ranked first. It is followed by the factors “Wastage of time” and “Salary hike/ Increment / Incentives”.

5.1.7 FINDINGS FROM DISCRIMINANT ANALYSIS

The discriminant functional analysis shows that respondents who are working in fully automated technology in organization differ from those who are working in Semi-automated technology used in organization respondents in the factors influencing technological automation. Do factors of Overall impacts in organization due to technology automation, Personal impacts due to technology automation, Impact on implementation of the skills acquired during the skill development programmes acquired during the skill development programmes, Satisfaction level about the factors after attending the skill development programmes, Impact of skill development after attending the skill development Training programme differ among these two groups.

The Discriminant Function has predicted 27.37 % of the cases correctly in the Fully automated group and 91.76 % of the cases in the Semi-automated group and on the whole classified 73.4 % of the cases correctly. It is found from the study that nearly 80.5 % of the variation in the Discriminant Function is due to Overall impacts in organization due to technology automation, which contributes maximally, in discriminating between fully automated and Semi-automated. Next comes, Impact on skills acquired during the skill development programmes which contributes about 37.8 % in discriminating between the two types of respondents followed by Satisfaction about the skill development programmes.
5.1.8 MULTIPLE REGRESSION ANALYSIS

Multiple regression analysis is used to explain the variation in the Impact on skills acquired during the skill development programmes (dependent variable) based on the variation over the variables (independent variable) Impacts in organization due to technology automation, Personal impacts due to technology automation.

Looking at the significance values we found that Impacts in organization due to technology automation, Personal impacts due to technology automation, are significant (P < 0.01) in predicting the Impact on skills acquired during the skill development programme.

Simple regression analysis is also used to explain the variation in the Satisfaction level after attending the skill development programmes over the variables (independent variable) Impact on skills acquired during the skill development programme and Looking at the significance values we found that Impact on implementation of the skills acquired during the skill development programmes acquired during the skill development programmes is significant (P < 0.01) in predicting the Satisfaction level after attending the skill development programmes.

Further simple regression analysis is used to explain the variation in the Satisfaction level after attending the skill development programmes over the variables (independent variable) Impact of skill development after attending the skill development Training programme and Looking at the significance values we found that Satisfaction level about the factors after attending the skill development
programmes is significant (P < 0.01) in predicting the Impact of skill development after attending the skill development Training programme.

5.1.9. FINDINGS THROUGH STRUCTURAL EQUATION MODEL

The estimated positive sign implies that Impact on implementation of the skills acquired during the skill development programmes would increase by 0.016 for every unit increase in Organization Impact due to Technology Automation, Impact on implementation of the skills acquired during the skill development programmes would increase by 0.273 for every unit increase in Personal Impacts due to Technology Automation.

Satisfaction level after attending the skill development programmes would increase by 2.212 for every unit increase in Impact on skills acquired during the skill development programme and this co-efficient value is significant at 1% level.

The estimated positive sign implies that Impact of skill development after attending the skill development Training programme would increase by 0.455 for every unit increase in Satisfaction level after attending the skill development programmes and this co-efficient value is significant at 1% level.

5.2 SUGGESTIONS

1. Many of the textile firms should give importance on timely delivery of the orders and for that they need to understand the requirements and deploy the skilled labourers who have undergone training to reduce wastage and depreciation in the textile units.
2. Many new automated technologies need to be imported by the Indian government and to be sold to the textile firms with subsidy. Since the ultimate objective of technology automation is to reduce the workload and simplify the complex process and boost the productivity. Textile firms operating in India, particularly in Coimbatore region will flourish and will continue to retain its legacy in the forthcoming years in the International market.

3. Textile firms operating in Coimbatore region may focus more on imparting skill based training to the labourers working in their textile units and certificates can be issued for the same. Hike in salary can be given for them so as to retain the skilled labourers.

4. The labourers of the age group of 26 to 35 years need to be trained on advanced automated technologies. Because, they are capable of delivering maximum output within minimum duration. Textile firms can even offer shift allowance for them for improving the level of productivity.

5. The labourers of the age group of 26 to 35 years need to be trained on advanced automated technologies because they are capable of delivering maximum output within minimum duration. Textile firms can even offer shift allowance for them for improving the level of productivity.

6. Training programmes for spinning and garments are given more emphasis in Coimbatore region compared to Printing and Dyeing units. Printing and Dyeing Industries need more of specialised training programmes. Labourers working in these units upgrade themselves by experience.
7. The textile machinery suppliers can provide hands on training to the labourers working in that particular domain of a textile firm. By doing so, textile firms can save cost of incurred for training.

8. Government can join hands with textile cluster units and organise specialised training programmes for working with advanced technology in textile units.

9. Ministry of Textiles need to offer intense training programmes in every district by partnering with the textile firms on modern trends in textile technology and seminars, workshops on latest trends on textile can be organised for improving the knowledge of the labourers in textile units.

10. From the study it was found that majority of the labourers have not attended Skill development programmes offered by the Government Institutions and hence more awareness about skill development programmes need to be created among the textile labourers.

11. Every six month or yearly once, Textile units need to update their labourers skills and knowledge to improve the productivity and the performance of the labourers. It will be of great help in growth of the Industry.

12. Young labourers can be made to attend special or advanced training programmes and they in turn can impart the skills to their colleagues. By doing so, it will reduce the cost and time for the textile units.

13. All the necessary safety requirements can be provided to the labourers working with technology in textiles. This will reduce unexpected incidents in the workplace. An awareness programme on the worker safety measures can be conducted by the textile units to their labourers.
5.3 CONCLUSION

The researcher had carried out an extensive study on the various technical process related to textile sector in the Coimbatore region. This study gains more relevance as Coimbatore known as the Manchester of south India and it is the business hub for all textile products. There are many world renowned textile units functioning in this region and they are upgrading technologies themselves to compete in the global market.

One of the major problem this sector faces at present is the lack of skilled labour in this particular area. Due to technological automation, there is need of technically competent skilled labour. It is found from the research that many labourers working in textile units are either illiterate or educated upto primary level and they are don’t have training related to technology. Very few labourers have attended training programmes offered by their concern and thus they find too hard to secure employment on the course of textile upgradation.

Government of India has drafted numerous training programmes for the labourers yet still many labourers have not utilized to the fullest. The researcher found from the study, the labourers are not aware about the Government schemes and skill upgradation Programmes nearby their districts. The (SITRA) South Indian Textile Research Association is providing many skill upgradation training programmes for labour development under the scheme of Integrated Skill Development Scheme. The SITRA have branches in Palladam, Soolur, Somanur, Komarapalam, Tiruchengode, Karur and Rajapalayam. They are offering advanced training courses for labourers.
Since the textile industry is a labour intensive industry. Adequate importance need to be given for the labourers as huge cost is involved with respect to raw material, production and quality. It will be a burden for the textile units to recruit and train new labourers to work with latest technologies. Instead textile firms should strive to identify the skill deficit among the existing labourers and offer effective training programmes and evaluate them based on their productivity. By doing so productivity is bound to increase exponentially.

The study has thrown light on the fact that through many textile units operating in the Coimbatore region show much interest on updating new technologies as they fail to install and run them efficiently. The success of textile industry does not only depend on updating latest technologies but also depends up on how they are implementing in a successful way is very important. The textile industry will concentrate to providing suitable education for everyone, and fostering vocational education and training would nurture skilled manpower. Surely, it will give relief and increase the skilled workforce in textile industry.

The researcher would feel amply rewarded if the textile firms and government of India work in a collaborative manner and bridge the skill gap within minimum duration and help the textile units to remain competitive.
5.4 FUTURE SCOPE FOR FURTHER RESEARCH

The present study has focus on “Technology Automation and Labour Skill Development in Textile Units with Reference to Coimbatore Region”. Hence there is scope for further research in the following areas.

➢ A study can be done impact of skill development due to technological advantages in textile industry.

➢ A study can be done importance of schemes to develop labourers performance through training in textile industry

➢ A further research can be done on motion study of labourers working with automation in textile industry.