CHAPTER 8

CONCLUSION

The rationale behind undertaking this research was to study the motives for starting quality circles, internal process of quality circles and use of 7 QC tools along with impact of quality circles on reduction of cycle time, customer complaints, scrap and defect levels and cost saving.

The study began with an extensive literature survey on quality circles in manufacturing enterprises and this was followed by a discussion on the concept of quality circles, quality circle movement, and the role of QCFI in promoting quality circle in India. This was followed by research methodology, results and discussion.

The main findings of the study, suggestions for practice and future research are given below:

8.1 Main Findings of the Study

- Motives for starting quality circles by the sampled organizations were to effect an improvement of quality, followed by productivity and industrial relations.
• Motives for joining quality circles by the members were, for self-development and personal learning and to improve their communication and problem solving skills.

• Majority of the members acquired their membership in quality circles on voluntary basis (72%), the remaining (28%) members acquired their membership on involuntary basis such as suggestions from superiors, co-members and quality circle promotion department. This finding shows that, most of the members were aware of philosophy of quality circle.

• Majority of the quality circles were formed at shopfloor level (73%) and the remaining (27%) were formed by technical, professional and clerical level.

• The model duration of a quality circle meeting is found to be 15 days.

• Most of the quality circles conduct their scheduled meetings regularly (80%). The reasons for not holding meeting regularly (20%) were: the inadequate member-strength to conduct the meetings, production pressures, delays in implementation of quality circle recommendations, etc.

• Quality circle meetings were held most of the time during the working hours (43%), some time after the
working hours (37%) and both during and after the working hours (15%).

- The length of quality circle meeting is one hour on an average, however, it may be less than or more than an hour, depending on the problem on hand. Most of the members attend quality circle meeting regularly.
- The study witnessed the long term association of members with quality circle.
- Facilities have been provided by the management to conduct quality circle meetings.
- Four of the 7QC tools were extensively used by the sampled organizations such as cause and effect diagram, flow diagram, pareto analysis and stratification. While the remaining three tools were not used extensively.
- Quality circle implementation has made a significant reduction in cycle time, customer complaints, scrap and defect levels and cost. Successful implementation of recommendations given by quality circles has contributed to such reduction.
- There was no mean difference in reduction of cycle time, customer complaints, scrap and defect level and cost saving among public and private sector undertakings.
• Barriers perceived by the members of the quality circles for its successful implementation include lack of top management, middle management and co-worker support, lack of recognition and training.

8.2 Main Recommendations of the study

Based on the above findings, the following suggestions were made for effective implementation of quality circles in manufacturing enterprises:

• To ensure regular attendance of members of different shifts in quality circle meetings, three alternatives are suggested. First, if the members belong to two shifts, during the first week, the circle meets one hour before quitting time for the first shift; the next week, the circle meets in the first hour of the second shift. If three shifts exist, the same type of rotation pattern can occur. Second, both during and after working hours, each shift can function with a linking pin (one/two people who attend all meetings) as the coordinating mechanism. They will carry the meeting affairs to next meetings. Third, after working hours, it is left to the members to arrive at a satisfactory meeting schedule by consensus.
• Adequate support and appropriate implementation measures of the programme are crucial to successful quality circles. The management ought to create awareness about the quality circle concept among the entire staff. Management should take care that participants do not perceive the concept as thrust upon as the voluntary nature of the concept is of vital importance.

• The study envisages the need to establish a systematic training and development programme to meet organizational goal and to march towards continuous improvement. In the contemporary world, personal and team interaction skills must continually be refined. More emphasis has to be laid on training the personnel to identify proper statistical techniques which can be used to control processes, products and services. Specialized training on sophisticated tools like time study, motion study, value analysis, value engineering, PERT and other problem solving techniques should be given with adequate resource mobilization. It is imperative to benchmark training process with world class organisations. A comprehensive training program is necessary to create and maintain the continuous improvement and it must be institutionalized within the manufacturing enterprises.
• An appropriate system for recognizing and rewarding the quality circle activities needs to be designed and implemented.

• The quality circle activities should be given wide publicity through in-house magazines and notice boards.

• Quality circle members should be nominated to participate in regional conferences.

• 7 QC tools should be widely practiced for achieving higher levels of productivity and quality.

• Line and staff managers should be involved in the decision to adopt and to administer quality circle activities. However, line relationships in the administration of quality circle activities should not be duplicated. The administrative sponsors of quality circle activities should be located as high up in the organisational hierarchy as possible, and a steering committee that draws on top level representation from every relevant department and office in the enterprise should be formed.
8.3 Suggestions for Future Research

Future research on the subject may focus on the effectiveness of quality circles in service organizations and comparative study of effectiveness of quality circles in different sectors of manufacturing enterprises. A comparative study of implementation of quality circles and its impact on manufacturing enterprises among the Asian countries could also be taken up. A comparative study of organizations which have implemented quality circles and those which have not, could also be taken up. Cost benefits analysis of manufacturing enterprises before and after implementation of quality circles would be an area for further research.