

QUALITY COUNCILS: AN OVERVIEW

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Abstract

Enough evidence as case studies has been reported till date on the usage of quality circle in many manufacturing and service organization for drawing cost saving or quality improvement goals. It has been the utmost goal of enterprises with no surprises to that. But in this paper the author proposes his opinion on quality circle as a management technique. This paper tries to project a method from the parlance of management for anticipating the relative improvement of quality consciousness among all constituents so as to enhance their effectiveness and competence. The study will drive great yield to the practitioners and the users of the quality circle technique.

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1.0 Introduction:

“A Quality Circle is volunteer group composed of members who meet to talk about workplace and service improvements and make presentations to their management with their ideas”. These are related especially to the quality of output or services in order to improve the performance of the organization and motivate employees. This group carries on continuously as a part of organization-wide control activities, self and mutual developments and control and improvement within the workplace utilizing quality control techniques with all the members participating. Generally six to twelve volunteers from the same work area make up a circle (Abo-Alhol et. al., 2005). The members receive training in problem solving, statistical quality control and group processes. Quality Circle generally recommends solutions for quality and services which may be implemented by the management. Thus Quality Circle is not merely a suggestion system or a quality control group but extends beyond that because its activities are more comprehensive. Furthermore, it is not a taskforce because it can be made a permanent feature of the organization or a department. Author has studies the role of quality circle as a management tool to enhance the effectiveness of technique. It argues that the concept encourages employee participation as well as promotes teamwork and motivates people to contribute towards Organizational effectiveness through group processes (Allen and Raut, 1996).

2.0 Objectives of Quality Circle:

The following could be grouped as broad intentions of a Quality Circle:

- To contribute towards the improvement and development of the organization or a department.
- To overcome the barriers that may exist within the prevailing organizational structure so as to foster an open exchange of ideas.

- To develop a positive attitude and feel a sense of involvement in the decision making processes of the services offered.
- To respect humanity and to build a happy work place worthwhile to work.
- To display human capabilities totally and in a long run to draw out the infinite possibilities.
- To improve the quality of products and services.
- To improve competence, this is one of the goals of all organizations.
- To reduce cost and redundant efforts in the long run.
- With improved efficiency, the lead time on convene of information and its subassemblies is reduced, resulting in an improvement in meeting customers due dates.
- Customer satisfaction is the fundamental goal of any library. It will ultimately be achieved by Quality Circle and will also help to be competitive for a long time.

3.0 Quality Circle Organization:

The quality circle organization as shown in fig 1.1 is an informal one with in the formal organization, supporting each other to attain the corporate objectives.

Some selected managers representing production, quality control, design and process planning from the quality circles steering committee. This committee act as a policy making body for quality circles. The steering committee registers and monitors the quality circles in factories and organizations (Bhadury et. al., 1998).

3.1 Top management

Top management must play an important role by attending the orientation courses on quality circles that must be specially design for them. They must inform all employees of their decision to implement the quality circle program in the company. When ever quality circles projects are presented, the top management should invariably attend those meetings (Chakraborti, 1995).

They must address the different training courses on quality circles organized for various lower levels of management and workmen. The top management must express verbally as well in writing their support and commitment to the quality circles programs.

3.2 Steering committee

The managing director or CEO of the factory or organization must be the chairman and all HODs are the members of the steering committee. It must have members for various relevant departments (Cole, 1998). The duties of the quality circles steering committee are listed below.

- To define the ultimate goals of the quality circles program.
- To formulate long range plans for the program viz. organizing the circles, selection of departments formulating policy on quality circle promotion, incentives training etc.
- To select the facilitator and provide support by allocating maximum resources.
- To stimulate and regulate the quality circles meetings.
- To attend the quality circles project presentations.

Thus, the functions of the steering committee are to formulate policies and implement these in the factories and organizations.

3.3 Middle management

A committed middle management is necessary for the success of the quality circles programs. They must establish the department work program in line with the steering committee program. Viz. deciding about the number of circles in each section, the circles meetings time and facilities etc. their commitment must include:

- Attending some quality circles meetings through their selected members.
- Personal follow up of quality circles activities and training programs.
- Provisions of resources for circle activities & organization of supervisor's circles.

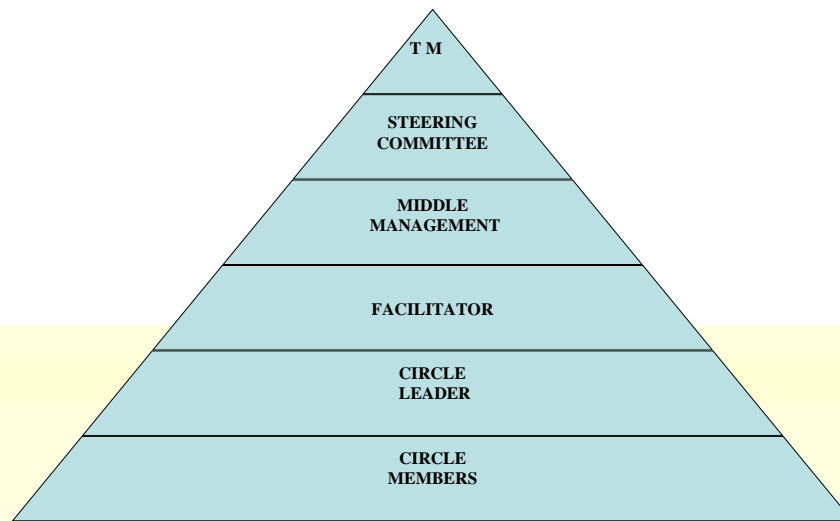


Fig. 1.1: Quality Circle Organization

3.4 Facilitator

The facilitator serves as a link between top management, quality circle steering committee, middle management, circle leader and circle members (Goh, 2000). The duties of the facilitator are given

- Coordinate the training courses.
- Get the support from top management, steering committee, middle management, circle leaders and circle members.
- Assist circle leaders and deputy leaders in conducting circle activities.
- Provide the necessary resources.

3.5 Circle Leader

Each circle is headed by a circle leader. While introducing the quality circles in a factory, supervisors can lead the circle initially. Later on, the workmen can take over as quality circles leader. Each workman will get a chance to become quality circle leader in rotation (Kaul and Dhar, 1990). The leader should maintain the enthusiasm of the members and motivate them in

circles activities. He must inform the status of the circle to the top management; he must conduct circle meetings regularly and monitor the circle activities with respect to formulated work program. In the absence of the leader, the deputy leader may conduct quality circles meetings.

3.6 Circle Members

The circle members must participate actively in the circle activities such as meetings, discussions and develop the right attitude towards their work, superiors etc. for quality improvements. A member must be conscious about productivity, quality and improvement which can be brought out with the operation of quality circles in an organization. Some non members may also be invited to quality circles meetings.

4.0 Implementation Steps for Quality Circles

4.1 Quality circle formation

In the first step Quality circle (as shown in fig 1.2) is formed in plywood industry. The steering committee is formed from the department in which quality circles was formed by taking self as a facilitator (Lawler and Mohrman, 1985). After steering committee was formed the group leader and deputy group leader was selected from the supervisors of that department. After the selection of group leader worker are invited to join the quality circle voluntarily who work as quality circle member.

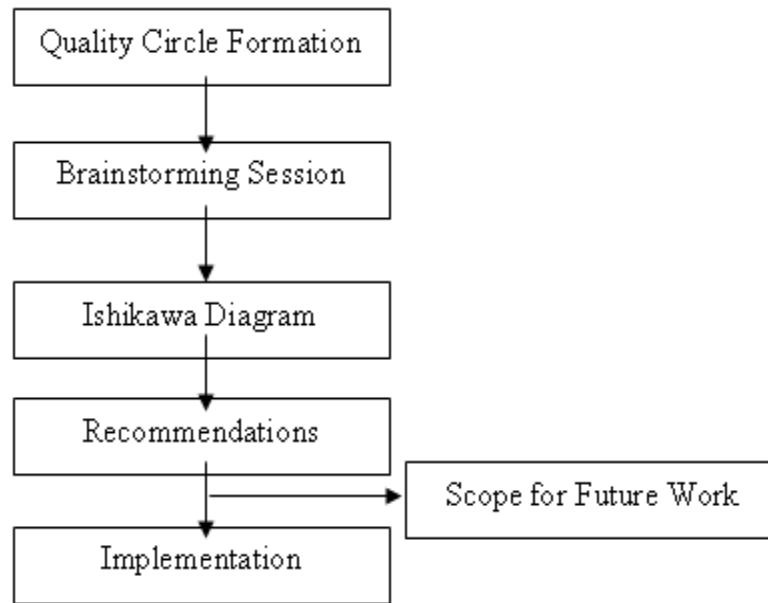


Figure 1.2: Implementation Steps of Quality Circle

4.2 Brain storming session

In the next step of meetings the brain storming session was conducted to find out the views of the quality circle members about the problems they had faced in daily routine. In brain storming session each member was free to talk about the problems in the industry which affect the production badly. These problems were listed down for further discussion.

4.3 Problem Identification

In next step a problem identification sheet is given to each member of the quality circle which consists of the general problems listed down by the circle members. In this sheet each of the members of the quality circle have to give the rating to the problem, out of 10, depending upon the severity of the problem in his own view. After all members have given ratings to the listed problem a total of the points given to each problem are made and problem with highest points is selected.

4.4 Ishikawa diagram

In next step Ishikawa diagram based on views given by the quality circle members was constructed. Based on Ishikawa diagram the main cause for the problem was identified and discussed with the quality circle members (Shewhart, 1931 and 1939).

4.5 Recommendation

In next step based on the problems identified solutions was find out with the discussion with quality circle members and best possible solution was recommended to solve that main problem.

4.6 Implementation

In next step recommended solution is implemented in the industry and results were found out by comparing present and previous production.

5.0 Quality Circles: Tools

Simple problem solving tools to identify, analyze, and solve problems are used in quality circles.

A brief introduction of these tools (Talib and Ali, 2003) is:

- **Brainstorming**

It is used to generate ideas. The members of the quality circle meet together for the brainstorming session where they discuss the general problems of the organization and plan for the remedial action

- **Data collection**

It is carried out by using check sheets. The data thus collected is presented diagrammatically using graphical techniques such as bar diagrams, pie charts, etc.

- **Stratification**

The segregation of collected data is done in the form of stratas and classes.

- **Pareto analysis**

It is used for separating the important and vital problems from minor and trivial ones.

- **Cause and effect diagram**

It is also called fishbone diagram or Ishikawa diagram. It is used to understand symptoms, causes and effects of the identified problem.

- **Line graph**

It is used to understand that whether the activity or process of problem being solved is within the specified control limits.

- **Scatter diagram**

It is used for working out the correlation between different variables and knowing whether a positive or negative correlation exists between these variables.

- **Histogram**

It is used to see the spread and magnitude of the problems as per its frequencies in the given data. It is similar to bar chart but is more statistical.

- **Control charts**

It is used for advance applications on data used in run chart/line graph to know whether the activities or process related to the identified problem is under control and operating within the specified control limits or is out of control. Then efforts are made to bring it under control.

6.0 Quality Circles: Benefits

The most important benefits of the quality circles are their effect on people's attitude and behavior. Other beneficial effects are:

- Quality circles enable the individual to improve personal capabilities. Many quality circle members spoke of the benefits gained from group participation and learning specific problem solving tools. One worker felt he had developed a better relationship with others as a result of his participation in a quality circle, because the circle had improved his ability to interact

with others (Shewhart, 1939).

- Quality circle increases the individual self respect. At Woodward governor, a worker spoke highly of quality circles because "the little guy can get in on things."
- Quality circle helps workers change certain personality characteristics. Almost every organization reported at least one case of an extremely shy person who had become more outgoing through participation in Quality circles. Circles help workers develop the potential to become the supervisors of the future.
- Quality circles increase the respect of the supervisor for the workers. "As a result of circles, I find that I talk more with workers on the line."
- Quality circles increase workers' understanding of the difficulties faced by supervisors. As a result of problem selection, solving, and implementation, circle members become aware for the first time of the supervisor's many burdens and demands on his time.
- Quality circles increase management's respect for workers. "Some of the presentations by the circles have been better than those of my staff people."
- Quality circle changes some workers' negative attitudes. At one company the worker stated, "I always had a chip on my shoulder around here because I didn't think the company cared about the worker. As a result of some circle project, I've got a lot better attitude."
- Quality circles reduce conflict stemming from the working environment. The removal of these frustrations not only eliminates sources of conflicts, but workers involvement in the removal process encourages them to think that they can deal with other frustrations as well.
- Quality circles help workers to understand better the reasons why many problems cannot be solved quickly. For instance, certain process changes required approval of the group technical function. Workers at the plant could understand the need for this and have

subsequently learned why this approval process required some times because of many other process changes being considered.

- Quality circles instill in the worker a better understanding of the importance of the product quality.

7.0 Conclusion

Quality circle tools and methodology have evolved utilizing various domains associated with process improvement. It provides a comprehensive and flexible system for maximizing business success. It is like sowing good quality seeds for better tomorrow. It has been considered as a revolutionary approach to process improvement. This paper illustrates the key ingredients of quality circle approach. Use of this approach will make production effective and more productive with less effort and less rejection. Companies that wish to accelerate development of their own quality program can utilize the evolutionary methodology explained in this paper to understand their current level of evolution and to implement focused actions that can quickly move them past their competition. Among the benefits of the quality circle it is clear that along with the quality and productivity improvement, quality circle also works as an administrative tool that focuses more on personnel development, increased motivational level, better understanding of process, skill upgradation, and increased decision making skill of workers. For supervisors, engineers and managers it helps in improving their manpower handling techniques, better understanding of process and skill level upgradation. Therefore it can be concluded that quality circle can also be stated as an administrative tool. The further study of quality circle intangible benefits in conjunction with the different quality tools is recommended.

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