Chapter – 6: Quality Circle

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Historical Background: The Concept

Dr. K. Ishikawa started Quality Control Circles (known as Quality Circles in India and in many nations) originally for the self and mutual development of the workmen. They are also a very logical outcome of the Japanese drive for training and accomplishment in quality control and quality improvement.

From the early 1950's, Japanese learnt from the seed courses of Dr. E. Deming's on statistical methods for quality control and Dr. J. Juran's courses on Quality Management. With zeal for learning and self-sufficiency, they vigorously promoted quality education by local experts across their country. It began with massive education of engineers, and then top and middle managers, supervisory levels.

Under their system of organising work, it became logical to extend training on quality to the Gemba-cho', the 'leading hand' of the workers in a section. Dr. Kaoru Ishikawa and his associates realised the immense potential of front line employees. It is not only the best way to help people to develop their own potential but also from the organisation point of view for contribution through training, development and motivation for quality control and improvement.

The training featured intra departmental groups of 10 or so workers seated around a table and hence the name 'QC Circle'. This thought revolution has been of immense benefit to Japan as a country, to the Japanese organisations that adopted it and to most of the ASEAN countries who have been pursuing it.

Problem solving was no more the exclusive purview of supervisors and managers (with workers only to do as told) but the people who are performing the tasks at work place are trained and empowered to solve work related problems and recommend solutions. Persons becoming members of Quality Circles realise and develop their potential, individually and in groups, acquiring new skills and competencies. Such competencies only will help to improve their performance and capabilities for their own betterment.

ROAD MAP RECOMMENDED AND USED BY QCFI FOR THIS PROCESS

Assessment of the prevalent conditions in the organisation/units/divisions through a survey.

Exposure programme to top management, senior management, discussion on survey findings and decisions for next steps.

Formation of a Quality Council/Steering Committee and choice of the
coordinator and facilitators; roles and responsibilities of each.

Working out an action plan and schedule, taking care to incorporate.

- Key concerns arising from the survey findings and actions agreed upon.
- Developing facilitators and internal trainers through intensive training.
- Exposure to all the supervisory/middle management personnel, from areas where Quality Circles are to be started.
- Exposure to all the workmen in the division/unit where initially circle formation is aimed at formation of the initial Circles, education and training to all the members of the Circles on the processes, tools, techniques, maintenance of records, etc.
- Guiding and troubleshooting in the implementation stage by attending monthly review meetings of the steering committee/quality council for the first 6 months and bi-monthly, afterwards

**What is quality circle?**

A group of employees who perform similar duties and meet at periodic intervals, often with management, to discuss work-related issues and to offer suggestions and ideas for improvements, as in production methods or quality control, called a Quality Circle (QCC). These employees usually work in the same areas, and voluntarily meet on a regular basis to identify, analyze and solve their problems.

Key Characteristics of quality circle:

- A circle, usually consisting of 6-8 members, from the same section.
- Membership of a Quality Circle is voluntary.
- Circle members should meet regularly, ideally once a week, in particular place also in particular time.
- Circle members select a name for their circle in the first meeting and elect a leader to conduct the meetings.
- Members are specially trained in problem solving and analysis techniques in order to play their role effectively.
- Circle works on a systematic basis to identify and solve work-related problems for improving quality and productivity not just discussing them.
- The management must ensure that solutions are implemented quickly once they have been accepted
• The management must give appropriate and proper recognition to solution

Why Quality Circle:

It is said that 95% of the problems in workshops can be solved through quality control tools. The Japanese have experienced this! The quality control tools useful for QCCs are Pareto Diagrams, Cause-and-Effect Diagrams, Stratification, Check Sheets, Histograms, Scatter Diagrams, Graphs and Control Charts. Also, logical thinking and experience are a must for solving problems. Therefore the main objectives of QC are:

• To improve quality and productivity.
• To reduce the cost of products or services by waste reduction, safety, effective utilization of resources, avoiding unnecessary errors and defects.
• To identify and solve work-related problems and interfere with production as a team.
• To tap the creative intelligence of people working in the org. and make full use of human resources.
• To improve communication within the organization.
• To improve employees loyalty and commitment to the organization and its goals. (Promoting Morale of employees)
• To build a happy, bright, meaningful work environment.
• To satisfy the human needs of recognition, achievement and self development

The benefits of introducing a quality control circle program in the work place are many.

• Heightened quality awareness reveals faults in the system that might obstruct good practices.
• It improves the quality of your firm’s products and services, thereby increasing the value of your brand, and securing your customers’ confidence. The quality of customer relationship management can be further enhanced by using help desk software from the likes of pro software.
• The people who are part of the quality control circle will feel a sense of ownership for the project. Higher yields and lower rejection rates also result in enhanced job satisfaction for workers, which in turn drives them to contribute more.

• A quality control circle program also brings about improved two-way communication between the staff and the management.

• Finally, the financial benefits will certainly exceed the costs of implementing the program. A study revealed that some companies improved their savings ten fold!

Basic Organizational Structure of QC:

A quality circle should have an appropriate organizational structure for its effective and efficient performance. The structure may vary from one org. to another, but it is useful to have basic framework as a model:

In a typical organization, the structure of a QC may consist of the following elements:
1. **Steering committee** – Gen. manager / works manager, rep. from top management, rep. of human resource development and a rep. of employees’ union.

2. **Coordinator:** an administrative officer / personnel officer from middle level management.

3. **Facilitator:** senior supervisory officer / foreman. A facilitator may manage up to 10 circles. A facilitator is usually from one of the three departments – quality control, production or training.

4. **Circle Leader:** circle leaders may be from the lowest level of supervisors. A circle leader organises and conducts circle activities.

5. **Circle members:** line and / or staff workers (circle members should attend all meetings as far as possible, offer suggestions and ideas, participate actively in group processes, and attain training seriously.

**How to implement quality circle:**

- Firstly, the management is informed about the quality control circle process that is being planned.
- A committee is formed, and key persons such as a coordinator and in-house coach are selected.
- The scope is defined, and areas of application identified.
- First-line supervisors in the identified areas are given QCC presentations. It is important to make these impressive, and valuable tips on the subject are available.
- This is followed up with extensive training for coordinators and middle management on the process and their roles.
- Employees are invited to become members of a circle, and trained suitably once they sign up. Thus, a circle is formed and begins work. These may give rise to other circles.
- Problems are discussed and solved in a systematic manner in the QCCs. It is very important that solutions are implemented as quickly as possible, to maintain the momentum.

Usually QCC programs must operate in all sections of the company i.e., in the offices, service operations and manufacturing. But remember, while the size of the company is not important to a program's success, the following factors certainly are:
• Voluntary participation.
• Management support.
• Employee empowerment.
• Training programs.
• Team work.
• Problem solving skills.

**Conclusion:**

Generally, a quality control circle program requires the same framework as an ISO 9000 quality standard with regard to the management structure and training. Hence, QCCs should be part and parcel of your company’s Total Quality Management (TQM) initiative. However, QC followed some ethics, those are:

• Criticise ideas, not persons.
• The only stupid question is the one that is not asked.
• Everyone in the team is responsible for the team’s progress.
• Be open to other’s ideas.
• Pay, terms of employment and other negotiable items are excluded.

**Limitation OR when QC is inactive?**

• Inadequate Training
• Unsure of Purpose
• Not truly Voluntary
• Lack of Management Interest
• Quality Circles are not really empowered to make decisions.
• Too many suggestions.

Some successful example of Quality Circle in Indian Industries:

- **Hero Honda Motors** has promoted the ‘**Sunrise Quality Circle**’ and solve the problem of unsuccessful indicators supplied by a local manufacturer. The indicators would always fail in the field of operation endangering the riders of Honda bikes and bringing down the company’s reputation. The Sunrise QC tackled the problem after an investigation wherein the members found that the indicators failed due to a gap in the contact points. A few changes in the angle of the piece concerned and use of foolproof tools led to saving Rs.
80,000 per year. It also helped in increasing customer satisfaction and improving the reputation of the company.

- The **TATA Refractories Limited** Belpahar, Orissa, has promoted the ‘**Niharika QC**’. The sweepers found that using brush fibre bristle was more effective in cleaning of oil spills in the maintenance department where they worked. Re-using of plastic brush fibres from Toyota Vacuum cleaner of the department enabled them to save Rs. 4000 per annum besides leading to better housekeeping and safe working conditions.