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MOTIVATION AND SATISFACTION THROUGH QUALITY CIRCLES WITH REFERENCE TO SELECTED ORGANIZATION: AN EMPIRICAL STUDY

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ABSTRACT
Business plays a prominent role in the society. The Business environment that is internal and external environment is changing day by day. This change shows impact on company’s structure, culture, HR-practices, policies and procedures etc., Human Resources is an important asset to the organization, they plays a vital role in developing sustainable business organization by achieving organizational objectives. A company can accomplish goals when employee put genuine efforts and works on it. They can work better when they are motivated. So, success and growth of business will take place when employees work genuinely (with self-interest). Certain problems will be faced by every company. So, employee work groups should be there to deal with effective work place issues. To solve those problems one must need is motivation and satisfaction. Hence, defining and implementing Quality circles will support problem solving and motivation of employees. Thereby, result in increase morale and belongingness. This results in organization long time survival. Hence, the impact of employee motivation in Quality circles is become a significant study.

KEYWORDS: Quality circle, Motivation, Satisfaction, Employees, Problem-Solving.

INTRODUCTION
QC is a small voluntary group of people from the same work area who meet together on a regular basis for the purpose of identifying, selecting, analyzing and solving quality, productivity, cost reduction, safety, customer service and other work related problems in their work area, leading to the improvement in their work effectiveness and enrichment of their work life.

Spread of ‘QC’ Movement:-
The development of the idea of QC in Japan had its impact on Japanese economic performance during the 1960s and early 70s were an eye opener to several industrially advanced countries in the west. Today more than 50 countries are experimenting this concept, India being no exception to this. Though the underlying principle remains the same. The names vary worldwide like- HR Circle, Action Circles, Magic
circles, the power minded circle, the quality seekers etc.

**Structure of QC:-**
QC's are provided with a working structure, which is intended to facilitate the smooth functioning of QC activities. This structure varies from organization to organization.

**The general structure has the following elements:-**
- Members and Non-members
- Leader
- Facilitator
- Steering Committee
- Coordinating Agency
- Top Management.

**Some Problem Solving Tools Used By Quality Circles:-**
Quality Circles use certain basic techniques to identity, analyze and resolve problems. They are:
- Flow diagram
- Brainstorming
- Data Collection
- Cause & Effect Diagram
- Stratification
- Pareto analysis
- Histogram
- Graphs
- Scatter Diagram
- Control Charts

**Quality Circle Movement in Selected Organization:**
- QC's are one of the major factors, which have lead to the high productivity, as well as minimization of work related problems.
- The QC concept was implemented for the first time in 1991 when production has just begun. That same year around 83 Quality Circles were formed. From then onwards every year the number of employees participating in QC's has been rising steadily. The QC's identify and solve problems in their work area thereby simplifying the work processes today and this industry boasts of 3983 Quality Circles in its various plants and departments.
- Quality Circles form a part of the non-financial motivational schemes and the implementation as well as the sustenance of the Quality Circles is done by the Management Services Department.
- Exhibits commitment to the philosophy of QC and worker's participation in binging improvements. Extends support for QC Activities.
- Lays broad policies for the functioning of QC's
- Gives recognition to the achievements of QC members.

**Administration of QC in selected Organization:**
- The QC concept is actually administered by the following steps:
  1. **QC formation and registration:** A voluntary group of 6-8 members form a QC by registering themselves and a registration number is given to the group by the Management Services Department.
  2. **QC Meetings:** The QC members hold hourly meetings every week; the proceedings of which are recorded and signed by the facilitator/HOD. In these meetings the members identify problems, analyze them and develop solutions for the same by mutual discussions and by using the various scientific techniques.
  3. **Management Present and approval:** The outcome of the meetings is presented by the members before the HOD for the approval from top management.
  4. **Implementation of solutions by QC group:** Once the approval is received from the top management, the members to forward and implement the solutions developed by them.
  5. **Implementation report and compilation:** The effectiveness of the implementation of the QC project is made into a report duly signed by the facilitator and the HOD. The management Services Department keeps a centralized record of all implemented QC project.
QC Implementation in selected Steel Industry:
Lean Quality Circle: (LQC)
LQC is a circle which can be used or introduced by the company when they have a large number of projects, this helps to meet companies objective or goal. LQC works on a project and completes it within a short period of time.

Difference between QC and LQC:
The difference between both are Quality Circle will work on regular basis and solves the problems if they are included in day to day activities but in Lean Quality Circle, problems can be taken from the problem bank and they will work on it to solve the problem quickly and qualitatively. They will solve the problem within a short period of time.

Motivational schemes in selected steel Industry:
In this regard has its proven track record by having established motivational schemes, which have benefited the organization immensely. There are two types of Motivational schemes,

1. Financial motivational Schemes:
   - Incentive Scheme.

2. Non-financial motivational schemes:
   - Special Performance Award.
   - Promotions.
   - Welfare Schemes.
   - Suggestion Scheme etc.

Sustaining Quality Circles in Selected Organization:
In order to encourage improved participation in QC activities as well as give recognition to their achievements, This Organization undertakes various methods of sustaining QCs. Annual recognition function is held every year to give recognition to the praiseworthy QCs.

   Every year three best QCs present their case studies in the presence of the top management. This it is a major motivating factor as the presence of the top officials gives a sense of importance and pride to the QC members when making management presentations.
PORTER AND LAWLER MODEL OF MOTIVATION OF QUALITY CIRCLE AT SELECTED ORGANIZATION:

Value of Rewards:
- Rewards and awards
- Employee recognition
- Incentives

Ability and Traits:
- Team working abilities
- Decision-making skills
- Better employee relations
- Creativity

Perceived equitable rewards:
- Self motivation
- Self confidence
- Self assessment

Efforts:
- Q.C Meetings
- Management presentations and approval
- Technical skills (IT, electrical, mechanical)
- Knowledge and abilities

Perceived Effort reward probability:

Role of Perception:
- Leadership role
- Interpersonal skills
- Problem solving skills

Intrinsic rewards:
- Motivation
- Sense of Accomplishment
- Sense of Belonging

Extrinsic rewards:
- Awards
- Prize money and Medals

Performance Accomplishment:

Satisfaction:
- Increase in production
- High Morale and satisfaction
- Industrial peace
Efforts:  
In a quality circulars employee put efforts when they have a targets and when there is a pressure from a higher authority. Sometimes employees will work when they have rewards regarding the work performance and results.

Performance:  
Employees will perform their respective work when employer assigns to them. Employees will perform much better when they have a reward system.

Satisfaction:  
Most probably, employees will be satisfied when the organization recognizes efforts of an employee. If organization recognizes and appreciates his or her performance then they will motivated and perform better.
  - Intrinsic Rewards: Intrinsic Rewards are the rewards which affect the internal feelings of the employees regarding their work performance such as satisfaction, sense of accomplishment etc.
  - Extrinsic Rewards: Extrinsic Rewards are the rewards given to the employees such as Awards, Prize money etc.

REVIEW OF LITERATURE  
- Ricky W. Griffin in his article “consequences of implementing quality circles in an industrial setting” discussed about longitudinal and experimental investigation into the effects of quality circles on participants' attitudes and job performance. In addition, it assessed managerial opinion as to the value of the quality circles for enhancing organizational performance.
- Anat Rafeli in his article “Quality Circles and employee attitudes” explained about relationship between employees' participation in quality circle (QC) activities and their reactions to their jobs. Specifically, the relationship of participation in QC activities and employees' perceptions of the influence they have on their jobs, the characteristics of their jobs, and their overall job satisfaction.
- Rajesh Chaudhary and Lalit Yadav in their article “impact of quality circle towards employees & organization” said that the positive attitude will be developed. It leads to overall improvement in organizational culture as well as performance of employees. Their study results in - Drastic reduction in wastage, considerable increase in average saving, minimizing financial losses, and helps to increase employee motivation. By operating machine with care and minimizing wastage, the production & hence productivity increases considerably.
- Lawrence Scott Blair in his article “Quality circle participation: Influences on quality of work life, Job satisfaction and Self-esteem” discussed about participating in a Quality Circle program had a positive effect on quality of work life; self perceived success and importance on the job
- Poonam Likhitkar in his article “Employee Retention Management through Quality circle” discussed about employees is essential factor which lead to ups & downs of the company. It is the responsibility of the Employer to retain their competent existing staff by satisfying their needs.

STATEMENT OF PROBLEM  
In Present scenario, for every organization there will be some problems. Quality circles must be there to solve those problems. Before solving the problems Management have to know the variables which influence the employee motivation. Once Management able to identify those factors it helps to increase motivation level of employees. Then employees will be satisfied. If employees are motivated and satisfied it helps to solve problems quickly, qualitatively and easily by their genuine work or efforts.

RESEARCH OBJECTIVE  
- To study about Quality circle practices in the selected Organization.
- To know the impact of Quality Circles towards employee motivation and satisfaction.
- To offer suggestions if any for improvement of Quality Circle practices in selected Organization.

METHODOLOGY  
- Source of Data: The primary data has been collected from various sources, through interaction with concerned officers, by conducting survey and personal interview with the employees and secondary data is obtained from web, articles and text books.
- Sampling Technique: Simple random sampling has been used for the study.
- Research Tool: Chi-square technique is used for analyzing the variance between factors affecting Q.Cs and employee Motivation.
- Scope of Study: The study is limited to a particular organization, results may vary with change in organization so could not give whole picture about the organizations.
Reliability Test: (Cronbach’s Table)

Reliability Statistics

<table>
<thead>
<tr>
<th>Cronbach’s Alpha</th>
<th>Cronbach’s Alpha Based on Standardized Items</th>
<th>No. of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.747</td>
<td>.728</td>
<td>15</td>
</tr>
</tbody>
</table>

DATA ANALYSIS USING CHI-SQUARE METHOD - EMPIRICAL ANALYSIS

Data collected in the form sample questionnaire where it covers the question related five variables that are assumed to be influence the Motivation which are Problem-solving, Participative Environment, Work groups, Creativity, Productivity. The scaling technique used is likert scale which is 5 point scale ranges from Strongly Disagree to Strongly Agree. By having the collected data, to know the relationship between each variable with Employee Motivation Chi-Square Method-empirical analysis has been done.

CHI SQUARE Analysis for testing influence of motivation and satisfaction through Quality circles:

Null hypothesis: [H0]
Quality circle has no influence on Employee motivation.

Alternative hypothesis: [H1]
Quality circle has influence on Employee motivation.

OBSERVED FREQUENCY

<table>
<thead>
<tr>
<th>Employee Satisfaction</th>
<th>QUALITY CIRCLES</th>
<th>Opinion</th>
<th>Problem Solving</th>
<th>Participative Environment</th>
<th>Work groups</th>
<th>Creativity</th>
<th>Productivity</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Strongly agree</td>
<td>15</td>
<td>14</td>
<td>11</td>
<td>13</td>
<td>14</td>
<td>67</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Agree</td>
<td>27</td>
<td>32</td>
<td>30</td>
<td>30</td>
<td>31</td>
<td>150</td>
</tr>
<tr>
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<td></td>
<td>Total</td>
<td>42</td>
<td>46</td>
<td>41</td>
<td>43</td>
<td>45</td>
<td>217</td>
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EXPECTED FREQUENCY

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<tr>
<th>OPINION</th>
<th>PROBLEM SOLVING</th>
<th>PARTICIPATIVE ENVIRONMENT</th>
<th>WORK GROUPS</th>
<th>CREATIVITY</th>
<th>PRODUCTIVITY</th>
<th>TOTAL</th>
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</thead>
<tbody>
<tr>
<td>STRONGLY AGREE</td>
<td>12.9</td>
<td>14.2</td>
<td>12.6</td>
<td>13.2</td>
<td>13.8</td>
<td>66.7</td>
</tr>
<tr>
<td>AGREE</td>
<td>29.03</td>
<td>31.7</td>
<td>28.3</td>
<td>29.7</td>
<td>31.1</td>
<td>149.83</td>
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<tr>
<td>TOTAL</td>
<td>41.93</td>
<td>45.9</td>
<td>40.9</td>
<td>42.9</td>
<td>44.9</td>
<td>216.53</td>
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OBSERVED FREQUENCY (O) | EXPECTED FREQUENCY (E) | O - E | [O-E]^2 | [O-E]^2/E |
<table>
<thead>
<tr>
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<tr>
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<td>-2.03</td>
<td>4.12</td>
<td>2.06</td>
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<td>-0.2</td>
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<td>0.02</td>
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<td>31.7</td>
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<td>0.04</td>
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<tr>
<td>30</td>
<td>28.3</td>
<td>1.7</td>
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<td>1.44</td>
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<tr>
<td>13</td>
<td>13.2</td>
<td>-0.2</td>
<td>0.04</td>
<td>0.02</td>
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<tr>
<td>30</td>
<td>29.7</td>
<td>0.3</td>
<td>0.09</td>
<td>0.04</td>
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<td>0.02</td>
</tr>
<tr>
<td>31</td>
<td>31.1</td>
<td>-0.1</td>
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<td>0.005</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
<td>Σ 7.125</td>
</tr>
</tbody>
</table>
Calculated Value of $\chi^2 = 7.125$
Table value of $\chi^2$ for degree of freedom 4 is $9.488$

**OBSERVED**

Calculated Value of $\chi^2$ is lesser than table value of $\chi^2$. Hence null hypothesis is rejected.

**INFERENCES**

The calculated value is **7.125** lesser than tabulated value is **9.488**

**INTERPRETATION**

From the above chi-square analysis understanding that there is significant influence of Quality circles on employee motivation. If quality circle influences the employees it not only helps to increase employee motivation it also helps to increase in self-esteem and job satisfaction as well as an improvement in quality of work life.

There are certain variables taken in Chi square test like Productivity, participative environment, creativity, work groups and problem solving. If the employees in quality circles are motivated then it shows positive impact on those variables like it helps to improve productivity, creates positive participative environment, increases creativity, helps to increase team spirit in work groups and helps to solve the problems.

**Note:** For these five variables maximum number of employees is selected the options for strongly agree and agree. So by taking these two options chi-square test has done.

**FINDINGS**

- More than 80% of employees feel problems are resolved in an efficient manner by Quality Circles. It means employees are satisfied with the way Quality Circles are functioning in the organization.
- Almost all the employees agreed that Quality circle helps in improving the Productivity. The QC concept helps employees increase their individual levels of efficiency.
- Quality circle will select the list of problems by using any method or technique. They will solve it step by step. The main motto of their work is the solution for one problem in the list able to solve remaining problems also at the same time.
- Almost all employees accepted that Quality circle helps in motivation and self development of employees. By analyzing it understanding that employees are motivated and satisfied for their work and it also helpful them to increase knowledge to them in that area which leads to self development of employees.

**SUGGESTIONS**

- The management should encourage periodic presentations by the circle members; this would boost the morale of the high performers as well as encourage the lower performers to improve their performance.
- Better to display posters consists of list of projects they solved and the projects or problems they are going to solve. So that employees will aware about it.
- While conducting the survey in the organization understood that most of the employees are not aware about Lean Quality Circle and its significance. So we want to suggest that Awareness program shall be conducted for the employees to give awareness about the concept and benefits of Lean Quality circles.

**CONCLUSION**

From the above discussion we can conclude that Quality Circles are an effective forum for participation of employees at different levels, to contribute for the growth and success of the organization. In this study, there are certain variables are involved to influence the employees in quality circles through Motivation. Motivation and satisfaction of employees plays a vital role in Organization. Motivation level increases and satisfaction of employees will exist in Quality circle if employees are recognized and rewarded by Management.

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