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## A STUDY ON TOTAL QUALITY MANAGEMENT IMPLEMENTED IN ELECTRONIC INDUSTRY

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### ABSTRACT

The project "A study on Total Quality Management implemented in the Organization" This investigation examines the implementation of total quality management. The primary objectives are to evaluate the strategies employed to achieve the TQM criteria that the organization has adopted. The secondary aims include the assessment of training programs, the analysis of employee involvement, and the exploration of the impact of quality rings on company culture. A mixed-methods approach is used in this study to gather data through surveys, interviews, and document analysis. There are two main shortcomings: the results can't be applied to many situations, and the self-reported data may be biased. Offering an awareness of TQM practices in the electronics industry, the study aims to promote a broader understanding of quality management systems.

**KEY WORDS:** Employee Involvement, Customer Focus, Quality Improvement, Continuous Improvement.

### INTRODUCTION:

Total Quality Management (TQM) is a management philosophy that emphasizes continuous improvement, customer satisfaction, and the involvement of all employees in achieving quality excellence. By focusing on processes, data-driven decision-making, and strong supplier relationships, TQM aims to create products and services that consistently meet or exceed customer expectations. This approach not only improves quality but also boosts efficiency, employee morale, and competitive advantage, making it a vital strategy for organizations seeking sustained success in today's competitive markets.

### OBJECTIVES:

- To study on Total quality management implemented in the organization.
- To find out the employee's involvement and strategies used for successful implementation of TQM to provide quality products and services.
- To determine the effect of the training on the application of TQM.

- To study the impact of quality circle in an organization's culture and customer focus and complaints being taken seriously in the quality of improving products and services.

## REVIEW OF LITERATURE:

1. **The theoretical basis of Deming's approach to Total Quality Management (1999)** is the development of an organizational structure that promotes collaboration and learning in order to facilitate the application of process management practices. This, in turn, leads to ongoing process, product, and service improvement as well as employee fulfillment, all of which are essential to customer satisfaction and, eventually, the survival of the business (Anderson et al., 1994a).
2. **The method of TQM used by Juran (1993)**, TQM, according to Juran and Gryna (1993), is a system of actions meant to achieve satisfied consumers, empowered workers, increased revenues, and decreased expenses. Instead than employees, Juran thought that management was the primary cause of quality issues. Efforts in every department of a company are necessary to achieve quality. Quality management strategies used by the entire company, supplier quality evaluation, quality information systems, statistical techniques, and competitive benchmarking.
3. **In 1979, Crosby introduced Total Quality Management (TQM) and identified key components of a successful program:** management involvement, management accountability for quality, employee appreciation, training, lowering the cost of quality (prevention, appraisal, and failure costs), prioritizing prevention over post-event inspection, doing things correctly the first time, and zero defects.

## RESEARCH METHODOLOGY:

### Data Collection:

**Primary Data** - Primary data is collected through a questionnaire which is face-to-face communication to 120 respondents.

**Secondary Data** - Secondary data is already collected data that is available on company websites, journals, the internet, annual reports, and certain published papers.

**Research Design:** Descriptive. A descriptive research design is a sort of research methodology that seeks to describe or document the traits, actions, attitudes, opinions, or perceptions of a group or population being investigated.

**Sampling Technique:** Convenient Sampling Method.

**Sample size:** 120

**Population size:** 753.

**Period of Study:** 2 Months

### Tools Used For Analysis:

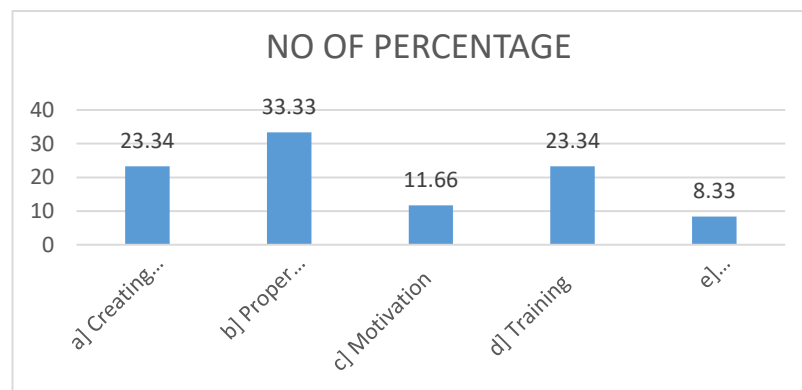
- Percentage analysis.
- Karl Pearson Correlation Coefficient
- Regression Analysis

## HYPOTHESIS:

1. **(H0):** There is a positive relationship correlation between the successful implementation of TQM strategy and employee involvement. **(H1):** There is a negative relationship between the successful implementation of TQM strategy and employee involvement.
2. **(H0):** Training in TQM implementation has no significant impact on employee knowledge, skills, attitudes, and performance. **(H1):** Training in TQM implementation has a significant impact on employee knowledge, skills, attitudes, and performance.

**PERCENTAGE ANALYSIS:****Table 1:** Strategy are used for successful implementation of TQM.

| PARTICULARS                       | NO OF RESPONDENTS | NO OF PERCENTAGE |
|-----------------------------------|-------------------|------------------|
| a] Creating awareness             | 28                | 23.34            |
| b] Proper Communication           | 40                | 33.33            |
| c] Motivation                     | 14                | 11.66            |
| d] Training                       | 28                | 23.34            |
| e] Reorganization to achievements | 10                | 8.33             |

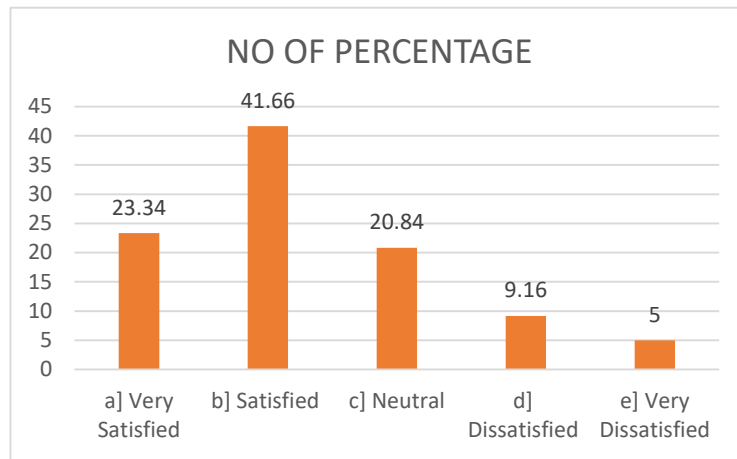


**Interpretation:** The above table infers that, 33.33% of the respondents said that they used Proper Communication Strategies for Successful Implementation of TQM and 23.34% of the respondents said that they used Training and Creating Awareness Strategy for Successful Implementation of TQM.

**Inference:** Therefore, 33.33% of the respondents feel the proper Communication is a strategy used for the successful implementation of TQM.

**Table 2: Respondents current job involvement**

| PARTICULARS          | NO OF RESPONDENTS | NO OF PERCENTAGE |
|----------------------|-------------------|------------------|
| a] Very Satisfied    | 28                | 23.34            |
| b] Satisfied         | 50                | 41.66            |
| c] Neutral           | 25                | 20.84            |
| d] Dissatisfied      | 11                | 9.16             |
| e] Very Dissatisfied | 6                 | 5                |



**Interpretation:** The above table infers that, 41.66 percent of the respondents felt satisfied about their job and 23.34 percent of the respondents felt very satisfied about their jobs.

**Inference:** Therefore, 41.66% of the respondents are satisfied with their current jobs.

#### **HYPOTHESIS:**

##### **KARL PEARSON'S CORRELATION COEFFICIENT :**

**(H0):** There is a positive relationship correlation between the successful implementation of the TQM strategy and employee involvement.

**(H1):** There is a negative relationship between the successful implementation of the TQM strategy and employee involvement.

|                                  |                     | employee involvement | Successful implementation of TQM strategy |
|----------------------------------|---------------------|----------------------|---|
| Employee Involvement             | pearson Coefficient | 1                    | .783                                      |
|                                  | Sig. (2-tailed)     |                      | .147                                      |
|                                  | N                   | 120                  | 120                                       |
| Successful implementation of TQM | Pearson Correlation | .783                 | 1   |
|                                  | Sig. (2-tailed)     | .147                 |   |
|                                  | N                   | 120                  | 120                                       |

**Inference:** Since  $r$  is positive, (H0) is accepted that there is a positive relationship between the successful implementation of the TQM strategy and Employee involvement.

#### **REGRESSION ANALYSIS:**

**(H0):** Training in TQM implementation has no significant impact on employee performance.

**(H1):** Training in TQM implementation has a significant impact on employee performance.

**REGRESSION TABLE**

| Variable   | Coefficient | Std.Error | t     | Sig.  |
|------------|-------------|-----------|-------|-------|
| Constant   | 3.124       | 6.041     | 0.517 | 0.641 |
| TQM Impact | 0.870       | 0.211     | 4.116 | 0.26  |

**Dependent Variable: (Constant) TQM Impact**, Since the P value is 0.026 and is less than 0.05 (P)

**Inference:**

| Statement   | Findings             | Result                     |
|---|----------------------|----------------------------|
| <b>(H1):</b> Training in TQM implementation has a significant impact on employee performance. | $P(0.026) \leq 0.05$ | The Hypothesis is Accepted |

**FINDINGS:**

- The majority [45%] of the respondent belongs to the age group of 25-35 years.
- The majority [78%] of the respondents are male.
- The majority [60%] of the respondents are married.
- The majority [39.16%] of the respondents are having UG qualification.
- The majority [37.5%] of the respondents are having 6-10 years of experience.
- The majority [32.5%] of the respondents earning 20000-40000 of Monthly Income.
- The majority [41.66%] of the respondents felt satisfied with their current jobs.
- The majority [36.68%] of the respondents agree that TQM is work in the organization.
- The majority [33.33%] of the respondents said that they used proper communication strategies for successful implementation of TQM.
- The majority [43.34%] of the respondents felt that the organization communicates the goals and objectives of TQM.
- The majority [38.36%] of the respondents said that the training and resources provided for the TQM are Adequate.
- The majority [35%] of the respondents extremely believe that the implementation of TQM has improved the quality of products and services.
- The majority [45.85%] of the respondents strongly agree that the organization possesses a clear quality policy.
- The majority [35%] of the respondents extremely believe that the implementation of TQM has improved the quality of products and services.
- The Majority [37.5%] of the respondents rate that their performance in quality related tasks is above average.
- The Majority [32.5%] of the respondents agree that training has improved your work performance is above average
- The majority [85.84%] of the respondents said that the organization culture has quality rings.
- The majority [44.16%] of the respondents said that the organization took less than 3 months for full implementation of TQM.
- The majority [39.18%] of the respondents agree that customer focus and complaints are taken seriously and considered
- The majority [40.85%] of the respondents are satisfied with the way TQM implemented in the organization.

**KARL PEARSON'S CORRELATION COEFFICIENT:**

Since r is positive, there is a positive relationship between the successful implementation of the TQM strategy and Employee involvement.

## REGRESSION ANALYSIS:

Since the P value is 0.026 and is less than 0.05 (P) The H1 Hypothesis is Accepted, that Training in TQM implementation has a significant impact on employee performance

## CONCLUSION:

An conclusion into the adoption of Total Quality Management This research objective is based on TQM implementation in an organization that is carried out in the company. I used the primary and secondary objectives to form the questionnaire, and it was collected through face-to-face communication in the company with a sample size of 120. After that, I conducted an analysis using the Karl Pearson correlation and percentage analysis functions in SPSS software, focusing on the responses that are related to continuous improvement in quality, customer focus, employee involvement, and training. These findings are significant for the manufacturing industry for the successful implementation of TQM, the use of TQM plays a significant role in improving the quality of products and services.

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