

# A Study on Effectiveness of TQM with Reference to Jenntex Engineering, Coimbatore, India

T. Krishnasamy<sup>1</sup>, V. Nishanth<sup>2</sup>, S. Srinath<sup>3</sup>, P. Yugesh<sup>4</sup>

<sup>1</sup>Assistant Professor, School of Management, Sri Krishna College of Engineering and Technology, Coimbatore-641008, Tamilnadu, India

<sup>2,3,4</sup> II Year MBA, School of Management, Sri Krishna College of Engineering and Technology, Coimbatore-641008, Tamilnadu, India

**Abstract:** Total quality management (TQM) is an approach to improve the competitiveness, effectiveness, and flexibility of a whole organization. It is essentially a way of planning, organizing and understanding each activity, and depends on each individual at each level. TQM is mainly concerned with continuous performance improvement. To achieve this, people need to know what to do, how to do it, have the right tools to do it, and be able to measure performance and receive feedback on current levels of achievement. The main problem of the study is to find out the quality aspects based on various dimensions used in TQM in the company. To fulfill these objectives, a descriptive research design has been used. Using random sampling method, 80 respondents were selected from operational level employees and 40 were selected from middle level management of the company.

**Keywords:** Total Quality Management, Continuous improvement, TQM Training

## 1. Introduction

Total quality management or TQM is an integrative philosophy of management for continuously improving the quality of products and processes. It is used around the world. TQM functions on the premise that the quality of products and processes is the responsibility of everyone who is involved with the creation or consumption of the products or services offered by an organization. In other words, TQM capitalizes on the involvement of management, workforce, suppliers, and even customers, in order to meet or exceed customer expectations. Considering the practices of TQM as discussed in six empirical studies, Cua, McKone, and Schroeder (2001) identified the nine common TQM practices as cross-functional product design, process management, supplier quality management, customer involvement, information and feedback, committed leadership, strategic planning, cross-functional training, and employee involvement. Total Quality Management (TQM) is an approach that seeks to improve quality and performance which will meet or exceed customer expectations. This can be achieved by integrating all quality-related functions and processes throughout the company. TQM looks at the overall quality measures used by a company including managing quality design and development, quality control and maintenance, quality improvement, and quality assurance. TQM takes into account all quality measures taken at all levels and involving all company employees.

## 2. Background of Study

### 2.1 Customer Focus

Elvis Attakora-Amaniampong (2014) concluded that all construction companies should equip their project management team to understand and use knowledge and skills from at least five expertise areas of the Project Management Body of Knowledge (PMBOK); Application area knowledge, standards, and regulations; Understanding the project environment; General management knowledge

and skills and Interpersonal skills. Again, they should have and always update themselves with the following project management competence: Project Management Knowledge Competency (What the Project Management Team knows about Project Management); Project Management Performance Competency (What the Project Management Team can accomplish while applying the project management knowledge); and Personal Competency (How the project management team behave while performing the Project or activities).

### 2.2 Continuous Improvement Techniques

J.V. Kovach (2011) concluded that guidance for practitioners about what tools are effective in a given situation and what problems they should try to anticipate/overcome when implementing continuous improvement techniques.

### 2.3 Quality Management Principles

Mubarak, M. (2012) concluded that the application of TQM principles varies between medium to high rate and the Inferential Statistics results showed a two principles have significant statistically relationship which are focus on customer and continuous improvement.

### 2.4 Effectiveness of TQM Training

Sasmita Palo (2003) concluded that raining creates awareness, builds employees' commitment to quality policy and strategy, facilitates teamwork, enhances performance standards, and bolsters the skills and abilities of employees. However, the organization needs to focus more upon improving communication competencies, multiple skill development and customer value training. Successful TQM training in the organization needs more budgetary allocation and commitment, support and enthusiasm of the top management.

### 3. Objectives of the study

The Primary Objective is to know about the Adoption of TQM practices among employees in the company. To analyze the level of acceptance of employees towards TQM in their company. To suggest the company about perception of employees towards effectiveness if TQM in their company.

### 4. Research Design

A research design in the specification of methods and procedures for acquiring the needed information and it is the overall operational pattern of framework of the project that stipulates what information is to be collected from which sources by what procedures. It constitutes the blueprint for the collection, measurement and analysis of data. Thus research design is a conceptual framework within which the research is conducted. The present study attempts to assess the total quality management in the company. It tries to assess the effectiveness of TQM of the organizations. Hence it is a descriptive study. Random sampling is the basic sampling technique where we select a group of subjects (a sample) for study from a larger group (a population). Each individual is chosen entirely by chance and each member of the population has an equal chance of being included in the sample. Every possible sample of a given size has the same chance of selection.

The primary data are those, which are collected for the first time by the researcher. It is the fresh data. It was collected by administering questionnaire from the employees. Secondary data refers to the already existing data. This study uses the internet, books, Published articles, journals, and Newspaper articles methods to collect the data.

Questionnaire is used to collect the data for the study. Two questionnaires were formulated to collect the data respectively from Middle management and operational level employees. The questionnaire for operational level employees consists of two parts. First part consist of demographic factors and second part consist of dimensions of TQM practices includes Awareness of TQM, Employee involvement, Focus on training, Participative decision making, Interpersonal relationship. The questionnaire for middle level management consists of two parts. First part consist of demographic factors and second part consist of dimensions of TQM practices includes Customer focus, process centered Attitude, Integrated system management, Strategic and systematic approach.

Using random sampling method 80 respondents were selected from operational level employees and 40 were selected from middle level management of the company.

#### 4.1 Tools used for analysis

- Percentage Analysis
- Independent sample t-test
- One-way ANOVA
- Multiple Regression

### Analysis and Interpretation

#### Analysis on adoption of TQM practices for Employees

**Table 4.1.1:** Gender wise distribution of the respondents

| Gender | No. of respondents | Percent |
|--------|--------------------|---------|
| Male   | 56                 | 70      |
| Female | 24                 | 30      |
| Total  | 80                 | 100     |

**Interpretation:** The table depicts gender wise distribution of the respondents. It is found that 56% of the respondents belong to male and 24% of the respondents belong to female.

**Table 4.1.2:** Age wise distribution of the respondent

| Age          | No. of respondents | Percent |
|--------------|--------------------|---------|
| 18 - 25 yrs  | 3                  | 3.8     |
| 26 - 35 yrs  | 29                 | 36.2    |
| 36 - 45 yrs  | 24                 | 30      |
| above 45 yrs | 24                 | 30      |
| Total        | 80                 | 100     |

**Interpretation:** The table depicts age wise distribution of the respondents. It is found that 3% of the respondent belongs to the age group of 18-25 years, 29% of the respondents belong to the age group of 26-35 years, 24% belongs to the age group of 36-45 years and 24% belongs to the age group of above 45 years.

**Table 4.1.3:** Distribution of the respondents based on experience

| Experience       | No. of respondents | Percent |
|------------------|--------------------|---------|
| Less than 1 year | 2                  | 2.5     |
| 1-3 yrs          | 28                 | 35      |
| 3-5 yrs          | 25                 | 31.2    |
| Above 5 yrs      | 25                 | 31.2    |
| Total            | 80                 | 100     |

**Interpretation:** The table depicts distribution of the respondents based on experience. It is found that 2% of the respondent have less than 1 year of experience, 28% of the respondent have 1-3 years of experience, 25% of the respondent have 3-5 years of experience, and 25% of the respondent have more than 5 years of experience.

**Table 4.1.4:** Distribution of the respondents based on receiving quality rewards

| Quality rewards to employees | No. of respondents | Percent |
|------------------------------|--------------------|---------|
| Yes                          | 39                 | 48.8    |
| No                           | 41                 | 51.2    |
| Total                        | 80                 | 100     |

**Interpretation:** The table depicts distribution of the respondent based on receiving quality rewards. It is found that 48.85% of the respondents are receiving quality rewards and 51.2% of the respondents are not receiving quality rewards.

Analysis for Middle level Management

Table 4.1.5: Gender wise distribution of the respondents

| Gender | No. of respondents | Percent |
|--------|--------------------|---------|
| Male   | 40                 | 100     |
| Total  | 40                 | 100     |

**Interpretation:** The table depicts gender wise distribution of the respondents. All the respondents at the top management level are males.

Table 4.1.6: Distribution of the respondent based on experience

| Experience       | No. of respondents | Percent |
|------------------|--------------------|---------|
| Less than 1 year | 6                  | 15      |
| 1 - 3 years      | 10                 | 25      |
| 3 - 5 years      | 20                 | 50      |
| Above 5 years    | 4                  | 10      |
| Total            | 40                 | 100     |

**Interpretation:** The table depicts distribution of the respondents based on experience. It is found that 15% of the respondent have less than 1 year of experience, 25% of the respondent have 1-3 years of experience, 50% of the respondent have 3-5 years of experience, 10% of the respondent have more than 5years of experience.

Table 4.1.7: Distribution of the respondents based on satisfaction towards monetary rewards

| Monetary rewards    | Frequency | Percent |
|---------------------|-----------|---------|
| Highly dissatisfied | 24        | 60      |
| Not satisfied       | 12        | 30      |
| Satisfied           | 4         | 10      |
| Total               | 40        | 100     |

**Interpretation:** The table depicts distribution of the respondents based on satisfaction of respondent. It is found that 60% of the respondents are highly dissatisfied on monetary rewards, 30% of the respondents are not satisfied with monetary rewards provided, 10% of the respondents are satisfied on monetary rewards.

4.2 Independent sample t-test

Analysis on adoption of TQM practices for Employees

4.2.1 Gender and dimensions of total quality management

Ho1= There is no significant difference between gender and awareness of TQM.

Ho2= There is no significant difference between gender and employee involvement.

Ho3= There is no significant difference between gender and focus on training.

Ho4= There is no significant difference between gender and participative decision making.

Ho5= There is no significant difference between gender and interpersonal relationship.

Table 4.2.1: Independent sample t-test

| Dimensions of TQM             | Gender | N  | Mean   | Std. Deviation | T      | Sig at 5% level |
|-------------------------------|--------|----|--------|----------------|--------|-----------------|
| Awareness of TQM              | Male   | 56 | 2.6393 | 0.72103        | -1.847 | 0.486           |
|                               | Female | 24 | 2.9833 | 0.85652        |        |                 |
| Employee involvement          | Male   | 56 | 2.7679 | 0.60876        | -1.64  | 0               |
|                               | Female | 24 | 3.05   | 0.89491        |        |                 |
| Focus on training             | Male   | 56 | 2.7821 | 0.62117        | -0.124 | 0.446           |
|                               | Female | 24 | 2.8    | 0.51415        |        |                 |
| Participative decision making | Male   | 56 | 2.8821 | 0.61114        | -2.23  | 0.328           |
|                               | Female | 24 | 3.2    | 0.51415        |        |                 |
| Interpersonal Relationship    | Male   | 56 | 2.9929 | 0.65612        | -0.821 | 0.018           |
|                               | Female | 24 | 3.1167 | 0.51724        |        |                 |

Interpretation

- The results for gender and awareness shows P value as 0.486 which is greater than 0.05 with t value -1.847. Therefore the hypothesis Ho1 is accepted and it can be concluded that there is no significant difference between males and females with reference to level of awareness.
- The results for gender and employee involvement shows P value as 0.000 which is lesser than 0.05 with t value -1.640. Therefore the hypothesis Ho2 is rejected and it can be concluded that there is significant difference between males and females with reference to level of employee involvement.
- The results for gender and focus on training shows P value as 0.446 which is greater than 0.05 with t value -0.446. Therefore the hypothesis Ho3 is accepted and it can be concluded that there is no significant difference between males and females with reference to level of focus on training.
- The results for gender and participative decision making shows P value as 0.328 which is greater than 0.05 with t value -2.230. Therefore the hypothesis Ho4 is accepted and it can be concluded that there is no significant difference between males and females with reference to level of participative decision making.
- The results for gender and interpersonal relationship shows P value as 0.018 which is lesser than 0.05 with t value -0.821. Therefore the hypothesis Ho5 is rejected and it can be concluded that there is significant difference between males and females with reference to level of interpersonal relationship.

4.3 One-way ANOVA

Analysis on adoption of TQM practices for Employees

4.3.1. Comparison between age and dimensions of TQM

Ho6= There is no significant difference between age and awareness of TQM.

Ho7= There is no significant difference between age and employee involvement.

Ho8= There is no significant difference between age and focus on training.

Ho9= There is no significant difference between age and participative decision making.

Ho10= There is no significant difference between age and interpersonal relationship.

**Table 4.3.1:** Comparison between age and dimensions of TQM

| Age (in years)  | N  | Dimensions of TQM |      |                      |      |                   |      |                               |      |                            |      |
|-----------------|----|-------------------|------|----------------------|------|-------------------|------|-------------------------------|------|----------------------------|------|
|                 |    | Awareness of TQM  |      | Employee involvement |      | Focus on training |      | Participative decision making |      | Interpersonal Relationship |      |
|                 |    | Mean              | SD   | Mean                 | SD   | Mean              | SD   | Mean                          | SD   | Mean                       | SD   |
| 18-25           | 3  | 2.40              | 0.00 | 3.80                 | 0.00 | 3.20              | 0.00 | 3.20                          | 0.00 | 3.60                       | 0.00 |
| 26-35           | 29 | 2.39              | 0.86 | 2.42                 | 0.52 | 2.57              | 0.44 | 2.81                          | 0.36 | 2.73                       | 0.60 |
| 36-45           | 24 | 3.26              | 0.55 | 3.53                 | 0.48 | 3.33              | 0.46 | 3.42                          | 0.52 | 3.30                       | 0.51 |
| Above 45        | 24 | 2.68              | 0.62 | 2.56                 | 0.51 | 2.45              | 0.47 | 2.70                          | 0.68 | 3.03                       | 0.61 |
| Total           | 80 | 2.74              | 0.77 | 2.85                 | 0.71 | 2.78              | 0.58 | 2.97                          | 0.59 | 3.03                       | 0.61 |
| F               |    | 7.260             |      | 27.837               |      | 19.094            |      | 9.259                         |      | 5.427                      |      |
| Sig at 5% level |    | 0.000*            |      | 0.000*               |      | 0.000*            |      | 0.000*                        |      | 0.002*                     |      |

**Interpretation:**

- The results for age and awareness of TQM shows level of significance as 0.000 which is less than 0.05 with f value 7.260. Therefore the hypothesis Ho1 is rejected and it can be concluded that there is a significant difference between age and awareness of TQM.
- The results for age and employee involvement shows level of significance as 0.000 which is less than 0.05 with f value 27.837. Therefore the hypothesis Ho2 is rejected and it can be concluded that there is a significant difference between age and Employee involvement.
- The results for age and focus on training shows level of significance as 0.000 which is less than 0.05 with f value 19.904. Therefore the hypothesis Ho3 is rejected and it can be concluded that there is a significant difference between age and focus on training.
- The results for age and participative decision making shows level of significance as 0.000 which is less than 0.05 with f value 9.259. Therefore the hypothesis Ho4 is rejected and it can be concluded that there is a significant

difference between age and Participative decision making.

- The results for age and interpersonal relationship shows level of significance as 0.002 which is less than 0.05 with f value 5.247. Therefore the hypothesis Ho5 is rejected and it can be concluded that there is a significant difference between age and interpersonal relationship.

**Analysis for Middle level Management**

**4.3.2. Comparison between experience and dimensions of total quality management**

Ho11= There is no significant difference between experience and customer focus.

Ho12= There is no significant difference between experience and process centered attitude.

Ho13= There is no significant difference between experience and integrated system management.

Ho14= There is no significant difference between experience and strategic and system approach.

**Table 4.3.2:** Comparison between experience and dimensions of total quality management

| Experience       | N  | Dimensions of TQM |      |                           |      |                              |      |                                   |      |
|------------------|----|-------------------|------|---------------------------|------|------------------------------|------|-----------------------------------|------|
|                  |    | Customer focus    |      | Process Centered Attitude |      | Integrated System Management |      | Strategic and Systematic Approach |      |
|                  |    | Mean              | SD   | Mean                      | SD   | Mean                         | SD   | Mean                              | SD   |
| Less than 1 year | 16 | 2.57              | 0.55 | 2.97                      | 0.71 | 2.80                         | 0.64 | 2.65                              | 0.79 |
| 1 - 3 years      | 10 | 2.68              | 0.62 | 3.12                      | 0.54 | 2.80                         | 0.69 | 2.84                              | 1.04 |
| 3 - 5 years      | 14 | 3.17              | 0.77 | 3.91                      | 0.45 | 3.00                         | 0.54 | 3.00                              | 0.75 |
| Above 5 years    | 0  | 0                 | 0    | 0                         | 0    | 0                            | 0    | 0                                 | 0    |
| Total            | 40 | 2.81              | 0.75 | 3.34                      | 0.71 | 2.87                         | 0.59 | 2.82                              | 0.81 |
| F                |    | 1.303             |      | 5.130                     |      | 0.236                        |      | 0.321                             |      |
| Sig at 5% level  |    | 0.297             |      | 0.018                     |      | 0.792                        |      | 0.730                             |      |

**Interpretation:**

- The results for experience and customer focus shows level of significance as 0.297 which is greater than 0.05 with f value 1.303. Therefore the hypothesis Ho1 is accepted and it can be concluded that there is no significant difference between experience and customer focus.
- The results for experience and process centered attitude shows level of significance as 0.0182 which is less than 0.05 with f value 5.130. Therefore the hypothesis Ho2 is accepted and it can be concluded that there is a significant difference between experience and process centered attitude.
- The results for experience and integrated system management shows level of significance as 0.792 which is greater than 0.05 with f value 0.236. Therefore the hypothesis Ho3 is accepted and it can be concluded that

there is no significant difference between experience and integrated system management.

- The results for experience and strategic and systematic approach shows level of significance as 0.730 which is greater than 0.05 with f value 0.321. Therefore the hypothesis Ho4 is accepted and it can be concluded that there is no significant difference between experience and strategic and systematic approach.

**4.4. Multiple Regression**

**Analysis on adoption of TQM practices for employees**

**Table 4.4.1:** Age and dimensions of total quality management

| Coefficients <sup>a</sup>     |                             |            |                           |        |       |
|-------------------------------|-----------------------------|------------|---------------------------|--------|-------|
| Model                         | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig.  |
|                               | B                           | Std. Error | Beta                      |        |       |
| (Constant)                    | 2.704                       | 0.54       |                           | 5.008  | 0     |
| Awareness of TQM              | 0.387                       | 0.176      | 0.334                     | 2.191  | 0.032 |
| Employee involvement          | -0.239                      | 0.219      | -0.19                     | -1.093 | 0.278 |
| Focus on training             | -0.176                      | 0.314      | -0.116                    | -0.562 | 0.576 |
| Participative decision making | -0.631                      | 0.28       | -0.422                    | -2.252 | 0.027 |
| Interpersonal Relationship    | 0.71                        | 0.268      | 0.489                     | 2.654  | 0.01  |
| R Square                      |                             |            | 0.168                     |        |       |
| Adjusted R <sup>2</sup>       |                             |            | 0.112                     |        |       |
| F Value                       |                             |            | 2.992                     |        |       |
| Sig at 5% level               |                             |            | 0.016                     |        |       |

**Interpretation:** The factors ‘Employee involvement, and Focus on training’ were found to be insignificant in explaining the dependant variable. The result of the regression model has been tested using ANOVA and the F value (2.992) was found to be significant at 5% level of significance. Therefore, the regression model is found to be moderately fit. Further, it can be seen that adjusted R<sup>2</sup> is equal to 0.112 which means that any time another independent variable is added to this model, the R<sup>2</sup> would change marginally only. Hence the factors Awareness of TQM, Participative decision making, and Interpersonal Relationship are rejected explaining there is significant impact by age on dimensions of total quality management.

**Table 4.4.2:** Comparison between the dimension awareness of tqm and other dimensions of total quality management

| Coefficients <sup>a</sup>               |                             |            |                           |        |       |
|---|-----------------------------|------------|---------------------------|--------|-------|
| Model                                   | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig.  |
|   | B                           | Std. Error | Beta                      |        |       |
| (Constant)                              | 0.697                       | 0.344      |                           | 2.027  | 0.046 |
| Employee involvement                    | 0.565                       | 0.128      | 0.519                     | 4.426  | 0     |
| Focus on training                       | -0.892                      | 0.178      | -0.676                    | -5.014 | 0     |
| Participative decision making           | 0.818                       | 0.157      | 0.632                     | 5.198  | 0     |
| Interpersonal Relationship              | 0.16                        | 0.174      | 0.127                     | 0.918  | 0.361 |
| a. Dependent Variable: Awareness of TQM |                             |            |                           |        |       |
| R Square                                |                             |            | 0.517                     |        |       |
| Adjusted R <sup>2</sup>                 |                             |            | 0.491                     |        |       |
| F Value                                 |                             |            | 20.066                    |        |       |
| Sig at 5% level                         |                             |            | 0                         |        |       |

**Interpretation:** The factors ‘Interpersonal Relationship’ was found to be insignificant in explaining the dependant variable. The result of the regression model has been tested using ANOVA and the F value (20.066) was found to be significant at 5% level of significance. Therefore, the regression model is found to be moderately fit. Further, it

can be seen that adjusted R<sup>2</sup> is equal to 0.491 which means that any time another independent variable is added to this model, the R<sup>2</sup> would change marginally only. Hence the factor Interpersonal Relationship is rejected explaining there is significant impact by Awareness of TQM on other dimensions of total quality management.

**Analysis for middle level management**

**Table 4.4.3:** Customer Focused and dimensions of TQM

| Coefficients <sup>a</sup>               |                             |            |                           |        |       |
|---|-----------------------------|------------|---------------------------|--------|-------|
| Model                                   | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig.  |
|   | B                           | Std. Error | Beta                      |        |       |
| (Constant)                              | 0.408                       | 0.519      |                           | 0.787  | 0.443 |
| Process centered attitude               | -0.027                      | 0.166      | -0.026                    | -0.165 | 0.871 |
| Integrated system management            | 0.175                       | 0.31       | 0.138                     | 0.564  | 0.58  |
| Strategic and systematic approach       | 0.706                       | 0.211      | 0.762                     | 3.345  | 0.004 |
| a. Dependent Variable: Customer focused |                             |            |                           |        |       |
| R Square                                |                             |            | 0.752                     |        |       |
| Adjusted R <sup>2</sup>                 |                             |            | 0.706                     |        |       |
| F Value                                 |                             |            | 16.209                    |        |       |

**Interpretation:** The factor Strategic and systematic approach was found to be insignificant in explaining the dependant variable. The result of the regression model has been tested using ANOVA and the F value (16.209) was found to be significant at 5% level of significance. Therefore, the regression model is found to be moderately fit. Further, it can be seen that adjusted R<sup>2</sup> is equal to 0.706 which means that any time another independent variable is added to this model, the R<sup>2</sup> would change highly. Hence the factors process centered and integrated system is rejected explaining there is significant impact by age on dimensions of total quality management.

**5. Findings**

**Employees**

Most of the respondents are male and most of the respondents belong to the age group of 26-35 years. Maximum of the respondents have completed their UG in the survey and they are having 7-9 members in their family. Most of the respondents are earning from 6001-8000 in our survey. Maximum of the respondents are having experience from 1-3 years in our survey. Most of the respondents are highly satisfied on the monetary rewards given. Maximum of the respondents said that they give quality rewards to employees. Awareness of TQM Focus on training and Interpersonal Relationship is high with the age group 36-45 years and mean scores of different age group imply that Employee involvement and Participative decision making is high with the age group 18-25 years. The mean scores of different educational qualification imply that Awareness of TQM is high with the educational qualification PG. The mean scores of different educational qualification imply that focus on training, interpersonal relationship, employee involvement and Participative

decision making is high with secondary school. The income level imply that Awareness of TQM Focus on training, Interpersonal Relationship, Employee involvement and Participative decision making is high with below 4000 of income level. The mean scores of different experience imply that Focus on training, Interpersonal Relationship, Employee involvement and Participative decision making is high with above 5 years. No of members in the family imply that Awareness of TQM is high with 4-6 members in their family and the mean scores of different no of members in the family imply that Focus on training is high with 1-3 members in their family. In comparing age and dimensions of total quality management the regression model is found to be moderately fit. Further, it can be seen that adjusted  $R^2$  is equal to 0.112 which means that any time another independent variable is added to this model, the  $R^2$  would change marginally only. Hence the factors awareness of TQM, participative decision making, and Interpersonal Relationship is rejected explaining there is significant impact by age on dimensions of total quality management. It could be found that the variable 'Employee involvement' explaining 56.5%, followed by 'Focus on training' explaining 89.2%, 'Participative decision making' explaining 81.8%, and 'Interpersonal Relationship' explaining 16%, of variance in dimensions of total quality management. There is no significant difference between the mean score of age and dimensions of total quality management as the significance value is more than 0.05. So the hypothesis is accepted with respect to Awareness of TQM, Employee involvement, Focus on training, Participative decision making and Interpersonal Relationship. There is no significant difference between the mean score of gender and dimensions of total quality management as the significance value is more than 0.05. So the hypothesis is accepted with respect to Awareness of TQM, Employee involvement, Focus on training, Participative decision making and interpersonal relationship.

#### Middle level Management

Maximum of the respondents are from the age group of 26-35 and they have completed UG. Most of the respondents are unmarried and having 7-9 members in their family. Maximum of the respondents are earning from 6001-8000 in our survey. Most of the respondents are having experience from 3-5 years in our survey. The mean scores of different educational qualification group imply that customer focused, process centered, integrated system, and strategic and systematic approach is high with the educational qualification with PG. The mean scores of different income level group imply that customer focused, process centered, and integrated system is high with income level from 8001-10000 and the mean scores of different income level group imply that strategic and systematic approach is high with income level below 4000. The mean scores of different experience group imply that customer focused, process centered, integrated system, and strategic and systematic approach is high with the experience from 3-5 years. The regression model is found to be moderately fit. Further, it can be seen that adjusted  $R^2$  is equal to 0.706 which means that any time another independent variable is added to this model, the  $R^2$  would change highly. Hence the factors process centered and Integrated system is rejected

explaining there is significant impact by age on dimensions of total quality management.

## 6. Conclusion

Total quality management or TQM is an integrative philosophy of management for continuously improving the quality of products and processes. It is used around the world. TQM functions on the premise that the quality of products and processes is the responsibility of everyone who is involved with the creation or consumption of the products or services offered by an organization. The main objective of the study is to study about effectiveness of TQM, to know about the Adoption of TQM in the company and to analyse the level of acceptance of employees towards TQM in their company. For this purpose a sample of 80 was collected with employees and 40 was collected with top level management were percentage analysis, ANOVA, multiple regression and t-test were used as tools to analyze the data. The conclusion is that when compared with other dimensions on survey with employees participative decision making has the highest impact with demographic profiles and other factors related to TQM. It shows that this factor can be taken for the decision making process of the study and when compared with other dimensions related with top level management the dimension process centered can be taken for decision making process of the study. The TQM policy is been implemented effectively in the company but the management has to give more training so that the knowledge about TQM can be increased further in future period of time.

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