1. INTRODUCTION

Total Quality Management (TQM) has become latest management mantra in globalised and drastically changing business environments. Recently the organisations are considering the TQM as magic cure for improving organizational performance, creating learning organisation, modification of the behaviour of both the employees and the management. Most of past studies have found that TQM has a deep impact on organizational performance be it the large enterprise or the small and medium enterprise (SME). Several researchers have also looked at the concept of Standardisation of Quality (ISO 9000 certification) in relations to the implementation of TQM. This study tries to examine whether ISO certified small and medium enterprises have higher TQM practices as compared to those non ISO certified small and medium enterprises in general in the Hyderabad, India in particular.

2. LITERATURE REVIEW

Appreciating the importance of TQM, past studies have verified the issue of ISO 9000 certification in relations to the implementation of TQM.

According to Sohail and Teo (2003), some researchers like Bradley (1994) have pointed out the opinion that the ISO 9000 certification is the first step towards the implementation of TQM while some researchers still prefer to maintain focusing on TQM only. They indicated that even though some authors praise the ISO 9000 concept, others view it as a ritualized form of quality management that should not be used in isolation from TQM principles.

Briscoe, Fawcett, and Todd (2005) indicated that internalizing the core ISO practices is important in improving performance and ISO 9000 practices must become part of the routine in the organization. It is also proposed by Fenghueih, Ching, and Cleve (1999) that for the maximum benefits of ISO 9000 certification, the efforts undertaken in implementing the standards should be part of a TQM process.

Meanwhile, a study by Sun (2000) found that ISO 9000 standards are partially related to the implementation of TQM and the improvement of business performance and therefore it is recommended by the study that ISO 9000 should be incorporated with the philosophy and methods of TQM. In addition, Martinez-Lorente and Martinez Costa (2004) mentioned that despite the beliefs about ISO 9000 as a good first step in the way of implementing TQM, some of the ISO 9000 principles are contradictory once implemented with TQM philosophy. Samuel K Ho (1994) has pointed out 8 characteristics, which are needed in order to implement TQM and
ISO 9000 successfully. One of them is TQM is needed in the ISO 9000 system in order to produce quality products and services. This is because even with the ISO 9000 certification in hand, it would not guarantee that the products are of high quality.

According to Javier, Antonio, and Miguel (2003), a distinction can be made between the TQM content, elements, processes or practices. It is so-called elements (Waldman, 1994) practices and principles (Dean & Bowen, 1994), values and techniques (Hellsten & Klefsjo, 2000), processes and contents (Reed, Lemak, & Mero, 2000), interventions (Hackman & Wageman, 1995), principles and precepts (Sitkin, Sutcliffe, & Schroeder, 1994), etc.

The ISO 9000 series sets out the methods that can be implemented in an organization to ensure customers’ requirements are fully met (Oakland, 1989). Yahya and Goh (2001) mentioned that ISO 9000 is a management control procedure. It involves a business documenting the processes of design, production, and distribution to ensure that the quality of products and services meets the needs of customers (Quazi, Hong, & Meng, 2002; Pun, Chin, & Lau, 1999).

Present study tries to examine impact of ISO certification on TQM practices compared to those of non ISO certified in small and medium enterprises (SMEs).

3.1. OBJECTIVES OF THE STUDY

The objectives of the study are;

1. To know the importance of Total Quality Management (TQM) in Small and Medium Enterprises (SMEs)
2. To analyse the differences of TQM practices in between ISO certified and ISO uncertified SMEs
3. To suggest measures to improve the implementation TQM in SMEs

3.2. HYPOTHESIS TO THE STUDY

Based on the above objective, the following hypothesis is framed

\[ H_0: \text{TQM Practices are not different irrespective of the SMEs whether ISO Certified or not} \]

\[ H_1: \text{The ISO certification certainly cause significant impact on TQM practices} \]

3.3. DATA SOURCES

The study uses both primary and secondary data.
3.3.1. SECONDARY DATA

Small and Medium Enterprises or Industries related data has taken from the office of Directorate of Industries, MSME Development Institute Hyderabad, Various Websites, Library resources, Journals, Magazines etc. for supportive and other information.

3.3.2. PRIMARY DATA

The primary data has been collected from the respondents of selected small & medium enterprises (SMEs) situated in and around Hyderabad. The survey instrument used here is a questionnaire with multiple choice of answering questions based on Likert’s scale. The data collected is majorly qualitative than numerical. The questionnaire consists of total 46 questions divided into 7 constructs, besides 8 questions on profiles of organisation as well as respondents.

3.4. FRAMEWORK OF STUDY

Basing on the literature and previous studies a TQM model has been developed to evaluate the practices of TQM in Small and Medium organizations to be surveyed. TQM provides a generic concept for continuous improvement in quality and other performances. Several authors agree that TQM is a philosophy that stresses a systematic, integrated, and consistent perspective involving everyone and everything. However, the definitions of TQM elements vary a lot. For examples, ISO 9000 refers to eight principles of quality management and, the Malcolm Baldrige National Quality Award (MBNQA) shows seven dimensions for a framework of quality management. In this study seven dimensions of TQM are used to evaluate the TQM practices in the SMEs context, namely, Leadership, Quality Culture, Quality System Improvement, Team-building, Employee’s Participation, and Supplier Customer Relations. In fact, the dimensions of the TQM model of this study have much in common with quality management principles of ISO 9000 (ISO, 2000) because most surveyed SME organizations have attained ISO 9000 certificates. It is noted that TQM terminology is not familiar with many SME organizations, so it is used liberally rather than strict terminology in this study.

The survey questionnaire developed for this study; have some simplified variables keeping in view of the level of respondent units. The respondent SMEs are unlike the Large Organisations which are not having too technically complex processes like SPC or Process management etc. Thus, the study considered less number of variables than the others’ did, without compromising the core concept.

3.5. CONSISTENCY AND RELIABILITY TESTING:

An internal consistency analysis was performed separately for the items under each of the criteria. The reliability coefficient (Cronbach’s alpha) was calculated for each construct and ranged between 0.6796 and 0.9047. The overall coefficient of Alpha value for 46 items of seven constructs together is that Cronbach’s Alpha is 0.915322. Thus, each construct individually and the whole questionnaire is a strongly reliable.
3.6. SAMPLE

More frequently used method by researchers is the rule of thumb because they not often have the information required by the statistical method and because it gives sample size close to those of the statistical method. Rules of thumb are not arbitrary but are based on past experiences with samples which have met the requirements of that statistical method (Neuman, 2000).

Thus, with a small chosen population of organizations with ISO certification and also the situation demands for lots of data from each respondent, the sample size of this survey is determined by the rule of thumb. The sampling ratio is about 20% of the population, so the sample size is about 147 is taken but the actual responses received and verified correct are 120.

The sampling method chosen is Simple Random Sampling Method, keeping the purpose of the study in view and necessity of having related data on TQM practices of MSMEs.

3.7. SCOPE OF THE STUDY

SMEs situated in and around Hyderabad city of which may include manufacturing, engineering, construction, automobile, pharmacy, software, IT and others industrial units. The study has been collected the data from respondents from Feb2008 to June 2009. The sample reflects the facts of these periods only.

3.8. STATISTICAL TOOLS USED

The data analyzed with the help of computerised statistical software package SPSS. The study used various statistical tools like percentiles, averages, standard deviation, t-test, chi-square test, Phi-value and Cramers’ V etc., for its analysis.

4. TOTAL QUALITY MANAGEMENT (TQM)

Total Quality Management (TQM) is the integration of all function and processes within the organisation in order to achieve continuous improvement of the quality of goods & services. TQM is essential for today’s emerging global markets, but the focus remains on customer satisfaction. The concern for quality from the suppliers is growing rapidly. The term quality covers soft (people) aspects of business where as the terms cost and productivity covers hard notions. Motivating employees, thus certainly result in reduction of cost thereby increase in production. The concept of quality has been integrated in human history for longer time than the cost and productivity as such. The aspects related to TQM are Leadership and Top management commitment, Customer management, Training and education, Team-building, People management and empowerment, Supplier partnership, Quality planning and strategic process management, Rewards and recognition and Effective communication.

5. QUALITY MANAGEMENT STANDARDS (QMS) CERTIFICATION

The concept of TQM has evolved from a narrow focus on Statistical Quality Control (SQC) to a broad spectrum of socio-cultural, behavioural and technical issues. Many countries have come up with national Quality Award models to encourage continuous improvement in the processes to
Achieve business excellence in their companies. Simultaneously emphasis is also laid on the international quality certification so that the companies can become world-class. The most popular quality management standard certification is the ISO:9000 series by the International Organisation for Standardization (ISO).

ISO: 9000 SERIES

There are three major parts within the ISO: 9000 series against which the quality management system of a company can be developed and assessed. The individual standards are as follows:

ISO: 9001 - Specification for design, development, production, installation and servicing.

ISO: 9000 is the most comprehensive of the standards, covers the requirements of ISO: 9002 and the controls required to oversee design activities. The appropriate standard to be applied depends upon the activities of the company. The accredited assessment bodies also provide advice to applications on the appropriate standard. The ISO committee constantly reviews these standards and provides a futuristic view. Two revisions have already taken place in these standards.

6. SMALL AND MEDIUM ENTERPRISES (SMEs)- THE SECTOR OVERVIEW

There is growing worldwide appreciation of the fact that Small and Medium Enterprises play a catalytic role in the development process of most economies. This position gets reflected in the form of their increasing number and rising proportion in the overall product manufacturing, exports, manpower employment, technical innovations and promotion of entrepreneurial skills. The following Table reflects the contribution of SMEs in some of the developed economies in terms of SMEs Performance, Investment, Output, Employment, Exports, as well as Criteria for definition.

**TABLE .1**

**SMES’ CONTRIBUTION - GLOBAL**

<table>
<thead>
<tr>
<th>Country</th>
<th>Share of total establishments</th>
<th>Share of output</th>
<th>Share of Employment</th>
<th>Share of exports</th>
<th>Criteria for recognition</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>95%</td>
<td>40%</td>
<td>45%</td>
<td>35%</td>
<td>Fixed assets</td>
</tr>
<tr>
<td>U.S.A.</td>
<td>98%</td>
<td>61%</td>
<td>53%</td>
<td>n.a.</td>
<td>Employment</td>
</tr>
<tr>
<td>Japan</td>
<td>99%</td>
<td>52%</td>
<td>72%</td>
<td>13%</td>
<td>Employment</td>
</tr>
</tbody>
</table>
Taiwan | 97% | 81% | 79% | 48% | Paid up capital, assets & sales
Singapore | 97% | 32% | 58% | 16% | Fixed assets & employment
Korea | 90% | 33% | 51% | 40% | Employment
Malaysia | 92% | 13% | 17% | 15% | Shareholders’ funds & employment
Indonesia | 99% | 36% | 45% | 11% | Employment

Source: DC MSMEs India

6.1. SMEs IN INDIA

There are over 6000 products ranging from traditional to high-tech items, which are being manufactured by the MSMEs in India. It is estimated that in terms of value, the sector accounts for about 45 per cent of the manufacturing output and 40 percent of the total exports of the country. The sector is estimated to employ about 4.2 Crore persons in over 1.3 Crore units throughout the country. Further, this sector has consistently registered a higher growth rate than the rest of the industrial sector.

6.2. REIMBURSEMENT SCHEME FOR ISO-9000 CERTIFICATION

In order to enhance the competitive strengths of the SME Sector, the Government of India, introduced an incentive scheme for technological up-gradation/ quality improvement and environment management. The scheme provides incentive to undertakings in the Sector for having acquired ISO certification.

The Scheme envisages reimbursement of expenses for acquiring ISO9000/14001(or its equivalent) certification, to the extent of 75% of the cost subject to a maximum of Rs. 75,000/- in total. All Micro and Small Scale Enterprises having Entrepreneurs Memorandum (EM) Number are eligible to avail the reimbursement. The units can apply for reimbursement under the Scheme only after obtaining ISO9000/14001/HACCP (or its equivalent) certification. The Scheme is an all India Scheme administered by MSME-DO, Ministry of MSME, Government of India. The Scheme has been decentralised to state level through MSME-DIs w.e.f. 1.4.2007. The Scheme provides one time reimbursement. The amount of subsidy / financial support if already received from the State government/ financial institution shall be adjusted against the entitlement of reimbursement under this Scheme. The Govt. of India has extended the Scheme in the XIth Five Year Plan also.

Total 15807 numbers of units have been reimbursed expenses involving an amount of Rs.80.30 crore up to 31st December 2007 since inception of the scheme in 1994. The amount of Rs.7.00 crore were spent in year 2008-09 benefitting 1704 units and an amount of Rs.6.66 crore were spent 2009-10 benefitted 780 units. (Source: www.dcmsme.gov.in).
7. RESULTS ANALYSIS AND FINDINGS

TQM practices are analysed between the respondent units with the ISO Certification and respondent units without ISO certification. It is specifically done in terms of the seven TQM dimensions; Leadership, Quality Culture, Quality System Improvement, Teambuilding, Employee’s Participation, and Supplier Customer Relations as mentioned below. It is expected that the comparison may reflect systematic way of doing activities by the ISO Certified organizations and not so with the others. This study also makes a comparison between SME organizations with and without ISO (QMS) certification to determine which activities of total quality management implemented in organizations with certification were better than those without certification. The t-test is used to verify the statistical significance of the differences between the ISO certified and Non-ISO certified organizations for the TQM practices.

7.1. IMPACT OF ISO CERTIFICATION ON LEADERSHIP

Leadership is an important factor of total quality management. Leaders are persons who establish the visions and goals of the organization. Their commitment is one of the critical determinants of successfully implementing TQM. Leadership practices promote quality and high performance by creating and maintaining the total involvement of both internal (staff or employees) and external (customers and suppliers) people to achieve the goals of an organization. Therefore, the results of leadership activities in the units with ISO (QMS) certification expected to be higher than that of Non-ISO units. The following table presents the statistics in variable between the two groups.

<table>
<thead>
<tr>
<th>TABLE No:2</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMPACT OF ISO CERTIFICATION ON LEADERSHIP</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Factor</th>
<th>ISO Certified</th>
<th>Without ISO Certification</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Mean</td>
<td>Std. Dev.</td>
</tr>
<tr>
<td>Group Average</td>
<td>90</td>
<td>4.38</td>
<td>0.88</td>
</tr>
</tbody>
</table>

Source: Survey Data  
p-values with * mark are Significant at .050 level

These results show that there are statistically significant differences for items such as ‘leadership provides freedom to employees to work’ and ‘leaders provide required resources and training to employees’. The finding (Group Average p-value .041not< .050) suggests that there is sufficient evidence to confirm the leadership activities in the organizations with ISO certification is better than that of without ISO certification.
7.2. IMPACT OF ISO CERTIFICATION ON QUALITY CULTURE

Quality Culture is the way imbibing the norms, traditions within the organisation with respect to QMS, total quality management by the people. The Quality Culture is more systemised or more fashioned in the units with ISO (QMS). The Non-ISO units may not have the same. The following table presents the statistics in variable between the two groups.

TABLE :3

<table>
<thead>
<tr>
<th>Factor</th>
<th>ISO Certified</th>
<th>Without ISO Certification</th>
<th>t-test</th>
<th>p-value (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>Mean</td>
<td>Std. Dev</td>
<td>N</td>
<td>Mean</td>
</tr>
<tr>
<td>Group Average</td>
<td>90</td>
<td>4.32</td>
<td>0.53</td>
<td>30</td>
</tr>
</tbody>
</table>

Source: Survey Data

P-values with * mark are Significant at .050 level

The results show that there are statistically significant differences for items with * marks. The findings suggest that the evidence is significant (Group Average p-value .028< .050) to confirm the systemisation of Quality Culture in the organizations with ISO certification is better than that of without ISO certification.

7.3. IMPACT OF ISO CERTIFICATION ON QUALITY SYSTEM IMPROVEMENT

Quality System Improvement is the way replacing the old system of doing things by new and improved version within the organisation with respect to QMS, total quality management by the people. The Quality System Improvement is more systemised or more scientific in the units with ISO (QMS) than that of Non-ISO units. The following table presents the statistics in variable between the two groups.
TABLE 4

IMPACT OF ISO CERTIFICATION ON QUALITY SYSTEM IMPROVEMENT

<table>
<thead>
<tr>
<th>Factor</th>
<th>ISO Certified</th>
<th>Without ISO Certification</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Mean</td>
<td>Std. Dev</td>
</tr>
<tr>
<td>Group Average</td>
<td>90</td>
<td>4.55</td>
<td>0.57</td>
</tr>
</tbody>
</table>

Source: Survey Data  
*p-values with * mark are Significant at .050 level

The results show that there are statistically significant differences for items with * marks. The findings suggest that the evidence is significant (Group Average p-value .000< .050) to confirm the systemisation of Quality System Improvement in the organizations with ISO certification is better than that of without ISO certification.

7.4. IMPACT OF ISO CERTIFICATION ON TEAM-BUILDING

Team-building is the collective way of discharging organisational responsibilities with the same level of mindset within the organisation with respect to QMS, total quality management by the employees. The Team-building is more systemised or more scientific in the units with ISO (QMS) than that of Non-ISO units. The following table presents the statistics in variable between the two groups.

TABLE 5

IMPACT OF ISO CERTIFICATION ON TEAM-BUILDING

<table>
<thead>
<tr>
<th>Factor</th>
<th>ISO Certified</th>
<th>Without ISO Certification</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Mean</td>
<td>Std. Dev</td>
</tr>
<tr>
<td>Group Average</td>
<td>90</td>
<td>4.34</td>
<td>0.41</td>
</tr>
</tbody>
</table>

Source: Survey Data  
*p-values with * mark are Significant at .050 level

The results show that there are statistically significant differences for items with * marks. The findings suggest that the evidence is significant (Group Average p-value .000< .050) to confirm the systemisation of Team-building in the organizations with ISO certification is better than that of without ISO certification.
7.5. IMPACT OF ISO CERTIFICATION ON EMPLOYEE’S PARTICIPATION

The concept of total involvement is the core idea of TQM practices. TQM promotes the whole-hearted participation of employees to the organisational duties. The participation of employees is very complex activity that the factors like management style and the working environments do influence. The following table presents the statistics in variable between the two groups.

**TABLE : 6.**

**IMPACT OF ISO CERTIFICATION ON EMPLOYEES’ PARTICIPATION**

<table>
<thead>
<tr>
<th>Factor</th>
<th>ISO Certified</th>
<th>Without ISO Certification</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Mean</td>
<td>Std. Dev</td>
</tr>
<tr>
<td>Group Average</td>
<td>90</td>
<td>4.38</td>
<td>0.39</td>
</tr>
</tbody>
</table>

Source: Survey Data  p-values with * mark are Significant at .050 level

The results show that there are statistically significant differences for items with * marks. The findings suggest that the evidence is significant (Group Average p-value .000< .050) to confirm that the Employees’ Participation in the organizations with ISO certification is better than that of without ISO certification.

7.6. IMPACT OF ISO CERTIFICATION ON RECOGNITION AND REWARDS

The participation of employees is very complex activity that the factors like management style and the working environments do influence. TQM promotes the recognition best and dedicated performance; the whole-hearted participation employees etc. are properly rewarded. The following table presents the statistics in variable between the two groups.

**TABLE: 7**

**IMPACT OF ISO CERTIFICATION ON RECOGNITION REWARD SYSTEM**

<table>
<thead>
<tr>
<th>Factor</th>
<th>ISO Certified</th>
<th>Without ISO Certification</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Mean</td>
<td>Std. Dev</td>
</tr>
<tr>
<td>Group Average</td>
<td>90</td>
<td>4.18</td>
<td>0.56</td>
</tr>
</tbody>
</table>

Source: Survey Data  p-values with * mark are Significant at .050 level
The results show that there are statistically significant differences for items with * marks. The findings suggest that the evidence is significant (Group Average p-value .013< .050) to confirm that the Recognition and Reward System in the organizations with ISO certification is better than that of without ISO certification.

### 7.7. IMPACT OF ISO CERTIFICATION ON SUPPLIER/CUSTOMER FOCUS

The concept of Customer and Supplier Focus is, one of TQM practices, which says the linkage of both the supplier and customer is a must. TQM promotes the whole-hearted Customer and Supplier Focus to the organisational quality objectives. Following table presents the statistics in variable between the two groups.

**TABLE : 8.**

<table>
<thead>
<tr>
<th>Factor</th>
<th>ISO Certified</th>
<th>Without ISO Certification</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Mean</td>
<td>Std. Dev</td>
</tr>
<tr>
<td>Group Average</td>
<td>90</td>
<td>4.63</td>
<td>0.43</td>
</tr>
</tbody>
</table>

Source: Survey Data  
*p*-values with * mark are Significant at .050 level

The results show that there are statistically significant differences for items with * marks. The findings suggest that the evidence is significant (Group Average p-value .003< .050) to confirm that the Customer and Supplier Focus in the organizations with ISO certification is better than that of without ISO certification.

### 7.8. IMPACT OF ISO CERTIFICATION ON TQM PRACTICES

TQM promotes the Holistic approach. It never depends heavily on any one of TQM tools. TQM also called companywide quality management (CWQM) stressing importance of the performance improvement as whole. The following table presents the relevance of various TQM variables in terms of respondents’ opinions between two groups expressed in different statistical parameters.
TABLE: 9

IMPACT OF ISO CERTIFICATION ON TQM

<table>
<thead>
<tr>
<th>ALL TQM ATTRIBUTES</th>
<th>Whether ISO Certified</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>Disagree</td>
<td>21</td>
<td>4</td>
</tr>
<tr>
<td>Undecided</td>
<td>20</td>
<td>4</td>
</tr>
<tr>
<td>Agree</td>
<td>21</td>
<td>6</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>20</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>90</td>
<td>30</td>
</tr>
</tbody>
</table>

Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>Df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>22.565</td>
<td>4</td>
<td>.000</td>
</tr>
<tr>
<td>Phi</td>
<td>.434</td>
<td></td>
<td>.000</td>
</tr>
<tr>
<td>Cramer’s V</td>
<td>.434</td>
<td></td>
<td>.000</td>
</tr>
</tbody>
</table>

Source: Survey Data Significant at .050 level

The TQM all Constructs collectively analysed between ISO Certified and ISO Not Certified Respondent units to verify any difference on account of TQM practices. The above table shows that there is significant association between two attributes as Pearson Chi-Square test’s alpha is .000<.0500. The strength of association between the variables is also generated and which are Phi- Value and Cramer’s V (.434) found at considerable level. Hence, it is observed that the ISO Certification might have helped the SMEs to perform better. Systematic performance, generated in ISO Certified SMEs, is different from that of ISO uncertified SMEs.

SUMMARY OF RESULTS

The results as given in the above paragraphs are summarised below.

6.1. Impact of ISO Certification on Leadership Significant,

6.2. Impact of ISO Certification on Quality culture Significant,

6.3. Impact of ISO Certification on Quality system improvement Significant,
6.4. Impact of ISO Certification on Team-building Significant,
6.5. Impact of ISO Certification on Employee participation Significant,
6.6. Impact of ISO Certification on Recognition rewarding system Significant,
6.7. Impact of ISO Certification on Supplier customer focus Significant,

7.9. TESTING OF HYPOTHESIS
Null Hypothesis (H₀) is rejected as all TQM constructs found significant with t-test comparison of means and with Chi-square test. Hence the Alternative Hypothesis is accepted i.e. the ISO (Quality) Certification actually cause significant impact on TQM practices.

8. CONCLUSION
The results of the study of the impact of ISO certifications on TQM practices in terms of the seven TQM Constructs; Leadership, Quality Culture, Quality System Improvement, Team-building, Employee’s Participation, and Supplier Customer Relations are showing that there is strong relation between the ISO certification and TQM implementation. This study also observes that the total quality management is implemented in organizations with ISO certification were better than those of without ISO certification. Thus the study observes SMEs are doing systematic way of activities due to compliance of ISO guidelines which are certainly helpful for success TQM.

9. SUGGESTIONS
The following suggestions are given based on the study to improve efficiency of the SMEs implementing the Total Quality Management as well as effective functioning of SMEs both who are implementing TQM and who are planning to implement TQM.

It is suggested that all the SMEs should implement TQM in certain phased manner to get success in the globalised economies. It is suggested that Governmental Co-ordinating agency (i.e. DC-MSMEs) should provide the required assistance to implement Total Quality Management in SMEs by providing financial subsidy and guidance. It is suggested to encourage the SMEs to practice TQM and get them registered with certifying bodies like ISO.

The Total Quality Management will be effective, have a long lasting life, if the TQM tools are accepted, practiced, integrated and institutionalised as a way of life of employees and of the organisation as the Japanese practice.
10. REFERENCES


12. Lindsay, William, “Total Quality and Organisation Development”, St.Lucie Press, USA, 1992


