Lack of Popularity of TQM In SMEs- A Few Obstacles

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***Abstract*—Total Quality Management (TQM) is widely used in large scale enterprises as a quality management approach. Quality of the physical product was considered to be very important since decades, but now is the time when everyone is talking beyond quality of the product. The organizations are striving for excellence in whatever they do. In order to achieve this they are moving towards TQM. However it is not so popular in Small and Medium scale Enterprises (SMEs). SMEs are very much for the ISO9001 certification but when it comes to implementing TQM principles they are not seen so excited about it. This research paper is an attempt to find out a few difficulties faced by the SMEs in implementing TQM principles with the help of a survey of 20 manufacturing companies. It was observed that 'resistance to change' was considered to be the biggest hurdle in the way of TQM. Few other difficulties in descending order are ' lack of effective measurement criteria', 'costly consultancies & training programmes',' lack of evaluation procedures and benchmark indices',' lack of understanding',' lack of system and structures for TQM activities',' lack of rewards and recognition',' non-availability to training'. 'Lack of resources' was however not considered as a major difficulty.**

Keywords— TQM, ISO9001, SMEs

I. INTRODUCTION

The Small & Medium Scale Enterprises (SME) segment occupies an important position in the country's economy and continues to contribute to industrial development, exports and forex earning, creation of employment opportunities etc. This segment has developed in parallel with large scale Indian and MNC corporations. A continuous growth and development of the companies in this segment ensures a balanced growth of the Indian economy and acts as a facilitator towards entrepreneurial development, business ownership and related wealth creation, employment generation etc. The SME segment is expected to be a key component for sustaining future growth of various sectors. However, SMEs will have to align themselves bearing in mind globalization trends and resulting impact. [1]

Small and Medium Enterprises (SMEs) play a vital role for the growth of Indian economy by contributing 45% of industrial output, 40% of exports, employing 60 million people, create 1.3 million jobs every year and produce more than 8000 quality products for the Indian and international markets. SMEs are the fountain head of several innovations in manufacturing and service sectors, the major link in the supply chain to corporate and the PSUs. By promoting SMEs, the rural areas of India will be developed. [2]

Small companies have typical size, simple organization structure and have personalized management where communications and procedures are mostly informal or verbal. It could be a family business or partnership controlled by handful of people who could be the entrepreneurs. Even when they might not have the formally acquired professional skills to run the organization they still manage the entire business enterprise. They might not have the facilities and resources to carry out Quality Assurance functions or they might not have right knowledge and experience in the said field and hence are not fully aware of benefits derived out of it. They are usually inspection oriented i.e. they follow detection of defects from the manufactured lot, rather than prevention of manufacturing defective goods.

But now is the time when even SMEs have to think about focusing on the issue of quality management. With a very fierce competition differentiation has become a key to success and survival. Many SMEs have got themselves certified with ISO9001 and few of them have moved beyond that and started following TQM principles. However the popularity of TQM in SMEs is not that encouraging.

II. TQM

TQM is the philosophy, which the organizations can think of in order to move further in the quality aspect. TQM is management approach of an organization centered on Quality, based on participation of all its members, aiming at long term success, through customer satisfaction and benefits to all members of the organization & to the society as a whole. As the principles of TQM suggest continuous improvement, the organizations will be striving for better and better product, process and environment. In order to do this effective leadership and top management commitment is very much essential. It is a companywide movement and not applicable to only few corners or areas of the factory. It also emphasizes on quality chain i.e. concept of internal & external customers. All the benefits derived from the ISO can equally be achieved with TQM as well. Over and above, due to involvement of employees from all the level of the organization, effective utilization of human resource would take place. Due to empowerment to the employees in terms of finding out the problems, analyzing the problems and giving suggestions

thereby allowing them to become the part of decision making process the human force will be highly motivated and hence there will be improvement in the productivity.

TQM is defined as both a philosophy and a set of guiding principles that represent the foundation of a continuously improving organization. It is the application of quantitative methods and human resources to improve all the processes within an organization and exceed customer needs now and in the future. TQM integrates fundamental management techniques, existing improvement efforts and technical tools under a disciplined approach. It encompasses all aspects of business. Its key concepts are emphasis on management commitment, customer focus, involvement of all, treating suppliers as partners, continuous improvement and performance measurement.

In order to follow on the path of TQM, whole culture of the organization is to be changed. Everyone has to understand his/her own responsibility and become accountable for whatever one does. Management gives empowerment to employees to take decisions and to encourage them to give innovative suggestions. Throughout the company customer-supplier relationship should be developed, which is also known as Quality Chain. Each department works as a supplier & as a customer and each supplier should try to satisfy their customers. These customers are known as internal customers. If all the internal customers are satisfied, external customer (one who buys a product from the company) is bound to be satisfied. Systematic process management and continuous improvement are the other key elements of TQM. Following TQM principles one can claim that they may stop producing defective goods. It is also perceived to be a journey towards excellence.

The problem with TQM is, one does not get overnight results and to some extent the results are intangible. It is also said that TQM is endless journey and hence lacks proper direction and motivation.

A. Barriers to TQM implementation [3] [4]

- Lack of top management commitment
- Lack of employee involvement
- Non-cooperation of first line and middle level management
- Lack of clarity in vision
- Poor planning
- Losing track of business performance
- Not involving customers and suppliers
- Belief that training leads to employee attrition
- Failure to change organizational philosophy
- Resistance to change at all levels
- Ineffective TQM facilitator
- Team work complacency
- Lack of consistency and persistence by the management
- Haste and thereby waste
- Looking for immediate gains
- Adhoc organization
- Lack of resources
- Quick obsolescence of products
- Losing confidence in the middle of the journey due to various reasons
- Working harder than smarter
- Lack of effective measurement of quality improvement
- Unable to find right kind of leaders within the organization
- Not properly staffed- too many or too less number of employees

III. LITERATURE REVIEW

Shivakumar B. Burli et al. [5] in their research paper with the help of a survey of ISO & Non ISO manufacturing firms of Karnataka & Maharashtra concluded that 'SMEs act as a vital component of growing economy by contributing significantly for the development of economy by creating employment for both urban and rural workforce and by providing much needed flexibility and innovation in the economy as a whole. If TQM policies and practices are applied in a positive manner in manufacturing SMEs, it will significantly contribute in their performance in terms of quality and customer satisfaction. ISO has been adapted in many SMEs but certain TQM practices observed to be weak and hence, need management attention.

Lee and Kelce, (2003) [6] investigated the existing status of TQM practices in 112 SMEs (manufacturing firms) of China and its impact on their performance. It was found that manufacturing process of these small firms was not an obstacle to the implementation of TQM; instead it was the size of firm, which posed as a threat for implementation.

Shirley Coleman and Alex Douglas [7] indicated in their research paper that 'many organizations after getting certified with ISO 9000 do not know as to where they should be heading forward to. Some of them move further by following TQM principles. Out of them some fail to do so and some get succeed. The reason behind failure may be lack of clarity about the TQM requirements. It is a general perception that ISO 9000 is a stepping stone towards TQM.' Authors also quoted Gotzamani and Tsiotras (2001) [8] who in their research paper indicated that, the companies with belief of quick and simple certification with no real commitment to quality are having pessimistic view. Whereas where the ISO 9000 is considered to be the first step to TQM for which there are no clear requirements and clear directions.

The same authors referred Taylor (1995) [9], who with his survey came out with a statistical data that less than 40% companies implemented TQM, and almost 25% considered ISO 9000 as the final destination of the journey. He also observed that small firms were less interested in going beyond ISO 9000 when compared with large companies.

The authors [7] of this paper concluded that 'large numbers of organizations view ISO 9000 as the end of their quality journey. Probably because they have been forced to get the certificate or may be because TQM is very much abstract with many definitions and a lack of clear cut requirements.'

They also derived that 70% companies considered ISO 9000 as a stand-alone quality system with 18% seeing it as a

launching pad for TQM and 10% as a precursor of some other quality initiative. According to them there was no difference in the perception of SMEs and large organization regarding this finding.

Mengsteab Tesfayohannes [10] found that most manufacturing firms involved in TQM implementation have a larger number of employees (about 76% of them have more than 100 employees). This finding is consistent with Mann and Kehoe (1995) [11] and Salaheldin (2003)[12], who found in their study about factors affecting the implementation and success of TQM that companies with a large number of employees are more likely to have implemented TQM strategy.

Mengsteab Tesfayohannes [10] also mentioned that, 'There is a consensus among South African SMEs engaged in manufacturing that insufficient infrastructure, lack of training, workers' reluctance to get involved in decision making, and inadequate knowledge base are regarded as resisting forces that inhibit the introduction of TQM strategy.'

'Organizational resistance to change is regarded as one of the resisting forces that inhibit TQM implementation based on the points of view of some of respondents. That is not surprising, because some workers still think that any change will threaten their current positions. Therefore, it should be hindered.'

'Because the implementation of TQM strategy takes a long time, manufacturing firms that are willing to implement it should be patient and persistent and also embracing customer orientation philosophy.'

Sun and Cheng (2002) [13] concluded in their research paper that:TQM contributes less in SMEs than it does in large firms. Also TQM is more successfully implemented in large firms than SMEs. More efforts are needed to investigate how to implement TQM in SMEs successfully. In spite of success stories of TQM, still the concept has not been really adopted by SMEs (Dale and Duncalf, 1984) [14]. The main reason for low use of TQM in SMEs are, cost constraints and lack of sources (Wilkinson, 1994) [15]; second, lack of information on TQM, Specially oriented to SMEs; third, lower level of awareness and understanding (Taylor, 1996)[16].

Sha'ri M. Yusof and Elaine Aspinwall (2000) [17] in the abstract mentioned that 'TQM is a philosophy mainly dominated by large companies. Small businesses are lagging behind larger ones when it comes to introducing and adopting new managerial philosophies and advanced technology. Many small companies have stopped at quality system certification, such as ISO 9000, in their quality journey rather than pursuing further continuous improvement efforts through TQM.

IV. METHODOLOGY

An industrial survey was carried out with 20 Small and Medium Scale companies in the sector of manufacturing. The sampling was carried out on the basis of convenience. The overall survey was conducted with a huge sample of 182 respondent firms in the required category of SMEs. However as expected a very few SMEs were found following TQM principles. The tool used for the survey was a prescribed questionnaire with mostly closed ended questions. One section out of which, was dedicated to TQM related questions. The respondents were given with a list of probable difficulties faced by them while implementing TQM. They were to give their response according to the extent to which they faced those difficulties in their organization.

V. FINDINGS

The results of the survey on the aspect of difficulties faced by the respondent firms are indicated in the following part of description. They were asked to indicate on a 5 point scale the extent to which they faced difficulties while implementing TQM principles in their organizations. [18]

Lack of understanding

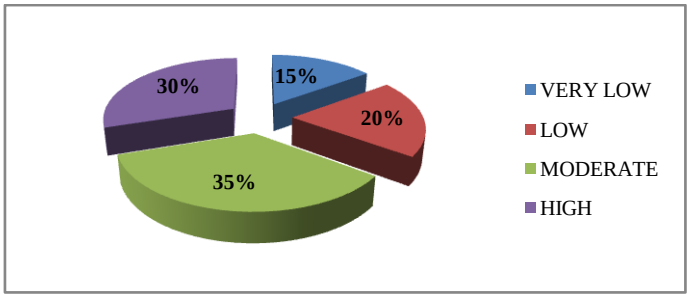

Fig. 1 Lack of understanding

Majority of the respondents felt that there was lack of understanding while implementing TQM. From the chart we can see that 30% of the respondents agreed that there was lack of understanding to a high extent while 35% felt it was to a moderate extent.

Resistance to change

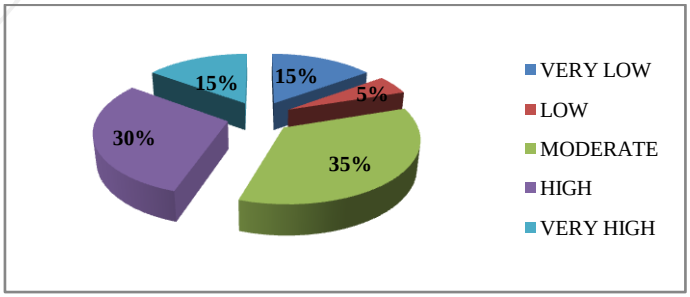

Fig. 2 Resistance to change

Resistance is very much normal while adopting something new. It is even more when the entire working system has to be changed. 45% of the respondents felt that resistance was high to very high as can be inferred from the above figure 2. Only 20% of the respondents felt that there was low to very low resistance, while 35% felt it was moderate.

Lack of resources

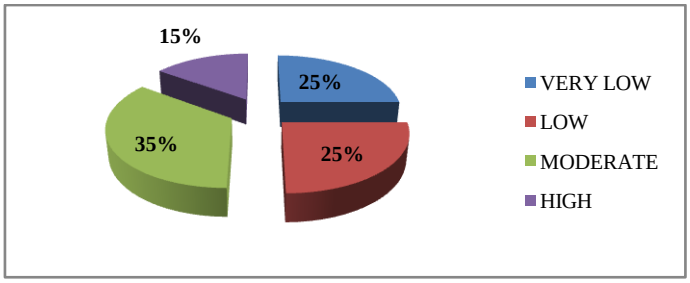

Fig. 3 Lack of Resources

35% of the respondents felt that there was lack of resource to a moderate extent while 15% felt it was to a high extent as can be seen from the figure. Nearly half of the respondents felt that lack of resources is not to be considered as a major hurdle in implementing TQM.(Fig.3)

Lack of system and structures for TQM activities

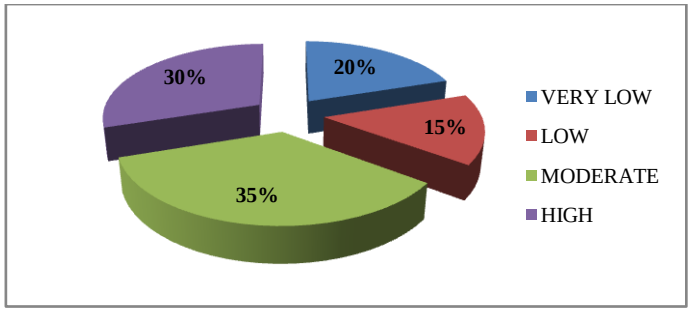

Fig. 4 Lack of system and structures for TQM activities

30% of the respondents felt that there was lack of system and structures for TQM activities to high extent while 35% felt that it was to a moderate extent as can be inferred from the figure 4. Nearly 35% of the respondents felt that it was to a low or very low extent.

Non availability of training

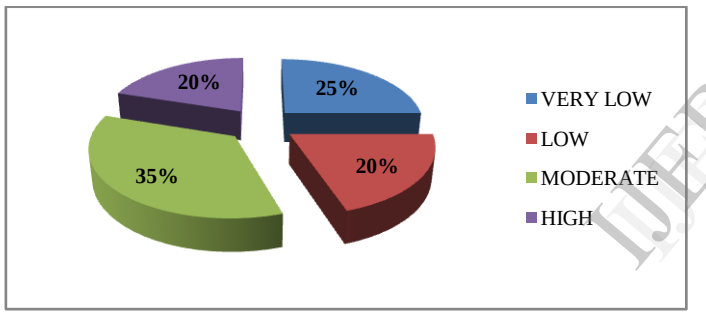

Fig. 5 Non availability of training

35% of the respondents felt that there was difficulty in having people for training to a moderate extent while 20% felt that it was to a high extent. A total of 45% felt that the difficulty was to a low or very low extent. (Fig.5)

Costly consultancies, training programmes

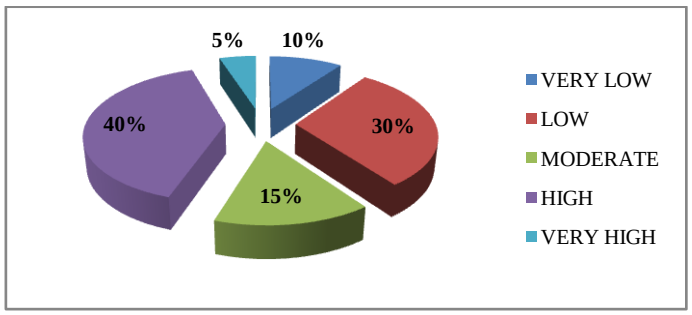

Fig. 6 Costly consultancies, training programmes

When asked about the difficulties faced in terms of costly consultancies and training programmes for implementing TQM, a total of 45% of the respondents felt that the difficulty was to a high or very high extent. 15% felt that it was to a moderate extent whereas 30% felt that it was to a low extent.(Fig.6)

Lack of rewards and recognition

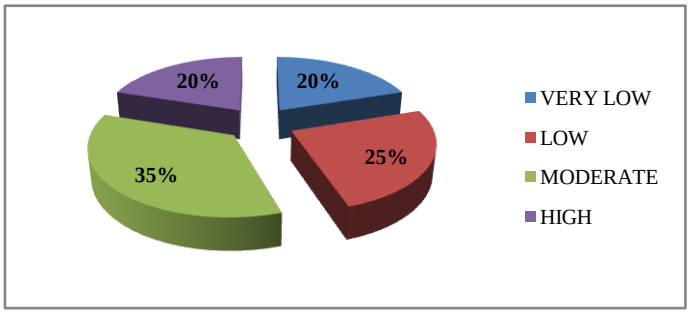

Fig. 7 Lack of rewards and recognition

20% of the respondents felt that there was lack of rewards and recognition to a high extent while 35% felt that it was to a moderate extent as can be seen from the figure 7. Nearly 45% felt that it was to a low or very extent.

Lack of effective measurement criteria

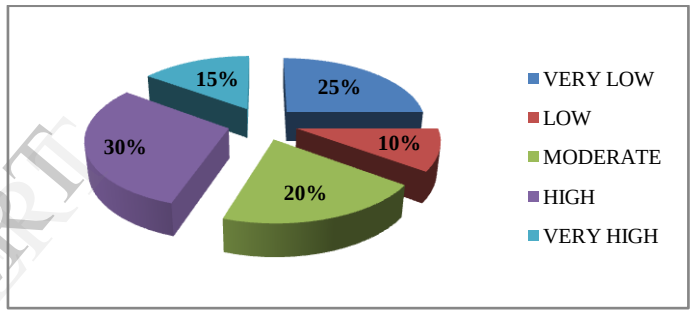

Fig. 8 Lack of effective measurement criteria

There was lack of effective measurement criteria according to majority of the respondents as can be seen from the above figure 8. 15% of the respondents felt that it was to a very high extent while 30% felt that it was to a moderate extent.

Lack of evaluation procedures and benchmark indices

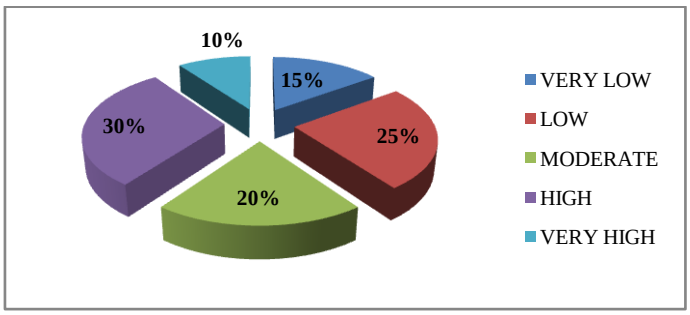

Fig. 9 Lack of evaluation procedures and benchmark indices

From the fig.9 above, it can be seen that 60% of the respondents felt that there is a lack of evaluation procedures and benchmark indices to a moderate to a very high extent. Remaining 40% felt it to low or very low extent.

VI. CONCLUSIONS

It may be concluded that very few SMEs are following TQM in addition to getting ISO9001 certification. Following table

indicates the descriptive statistics for ranking of difficulties faced by the firms (SMEs) in implementing TQM principles.

TABLE 1 Descriptive Statistics for Ranking of Difficulties In implementing TQM

Elements	N	Minimum	Maximum	Mean	Std. Deviation
Resistance to change	20	1	5	3.25	1.251
Lack of effective measurement criteria	20	1	5	3.00	1.451
Costly consultancies, training programmes	20	1	5	3.00	1.170
Lack of evaluation procedures and benchmark indices	20	1	5	2.95	1.276
Lack of understanding	20	1	4	2.80	1.056
Lack of system and structures for TQM activities	20	1	4	2.75	1.118
Lack of rewards and recognition	20	1	4	2.55	1.050
Non-availability to training	20	1	4	2.50	1.100
Lack of resources	20	1	4	2.40	1.046

It can be observed that the biggest difficulty is 'resistant to change'. The other difficulties in descending order of the extent to which they were faced by the SMEs in following TQM are, 'lack of effective measurement criteria', ' costly consultancies & training programmes', ' lack of evaluation procedures and benchmark indices', 'lack of understanding', 'lack of system and structures for TQM activities', 'lack of rewards & recognition' and 'Non-availability of training'. 'Lack of resources' however, was not considered as a major difficulty. [18]

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