

Total Quality Management and overall organization performance

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Abstract:

The study focuses on comparing the Total Quality Management (TQM) and organization outcome. TQM is mostly focuses on managing the employees of the organization, building leadership, improving product or service quality and improving or exceeding customer satisfaction. The paper has shown the implementation of TQM in the medical device sector in India. The level of implementation has been discussed in this paper the ranks were quality control, quality assurance and continual impartments. The changes in the organization after implementation of Total Quality Management tools were discussed. The advantage organization have achieved after TQM implementation in direct or indirect way has been discussed.

Keywords: Customer satisfaction, Organisational performance, Quality Control, Quality Assurance, Total Quality Management.

1. Introduction:

In this era, the customers are more concern about the quality of the product or services then the cost of product or services. They prefer product

quality instead of quantity and cost. In ancient time the views of the customer was quantity oriented and was based on the price of the product or services. When customer buys any product or obtain any services they think and consider the factors like built quality, innovation in the product, its dimensions, it reliability, its precisions, visual characteristics and many more. Exceeding or at least meeting customer needs, providing quality product as per pre-defined specifications, timely delivering of product as per schedule is the main factor for business success of the organization. The top management of the organization plays viral role in the building the overall frame of the organization. (Lakhal et al., 2006). Irrespective of business, manufacturing, marketing, distribution, and maintaining quality attributes. The top management will ensure and safeguard the vision and will lead the organization to another level. Quality is only the factor for business success and overall achievement of the organization. Meeting the customer need with quality is the factor for success. This is the era where quality is only the driving factor for business; quality is only the key factor for revolution (Gharakhani et al., 2013). Many organizations throughout the

word collapse and failed to achieve the success and failed to compete with competitors due to inefficient in quality attributes. Quality trends were evolved in Japan and later spread worldwide (Lakhal et al., 2006). This trend has involvement of new thinking which showcase thinking about the quality and involves quality approach throughout the system. This system of thinking became popular due to different concepts used in much popular organization. Organization like Motorola, Xerox, Toyota, Intel, HewlettPackerd have successfully implemented TQM in their manufacturing unit due to which this approach became more popular. This Total Quality Management has a philosophy and has approach that deals with continual improvement of overall performance of organization; it also talks about meeting or exceeding the customer needs (Dean and Bowen, 1994). Involving all the manpower from top to bottom of the organization and moving towards the path of success. This TQM philosophy talks about two main concepts one is continual improvements and other is customer satisfaction. TQM focuses on team building, working together for improvements, involving all the employees and creating co-ordination and communicating with all the employees and making people to participate in every activity. Co-operation between team members and their interaction with understanding is the key factor for growth (Prajogo et al. 2004). Involve people and creating culture in the organization through

providing trainings. Continuous learning and arranging developmental secession in each group is main concern for creating awareness. Due contentious growth the requirement from the market, the organization shall focus on quality of product and services survive in the competitive world. TQM focuses on improving the quality of the product, services, reducing defects in the product and services. Meeting market requirement and satisfying the customer is the main of TMQ.

2. Problem Statement

People across the world are still unaware about Total Quality management tool and its usage. Due to various concept and theories of TQM, it is very difficult for people to understand the TQM in real sense (Thiagarajan et al. 2001). A literature regarding TQM is still insufficient and inadequate to suffice the various people in the organization. The customer and market has become the quality oriented, market is always looking for high quality product and their demands always go on increasing. These kinds of demands crease the new trends of quality in the market around the world. Several studies have been carried out for this but this paper will clarify the concept of TMQ and its impact in the organization (Baidoun and Zairi, 2003).

3. Literature Review

3.1 Total Quality management:

The concept of TQM was developed and coined in Japan in during 1930. After the evaluation of TQM, many organization in the Japan has initiated to apply the concept of TQM in their manufacturing units. These tools were used by many organizations to enhance the quality of the product and services, to reduce the defects or errors generated during the course of processing activities (Demirbag et al., 2006; Talib et al., 2010). The quality of the product and services are monitored in various stages and assured throughout the life cycle of the product. The European country and other western country like USA have also accepted later that the TQM is useful tools and which can enhance the production capacity and quality of the product. Quality Management is the system built by the organization which is recognized and adapted by many organizations across the world (Sachdeva et al., 2007). The international organization for standardization is also immerged as one of the widely used QM system across the globe. In literature, the author (Talib 2013) provides the concept of Total Quality Management involves all the manpower in the organization, engage all the people for the specific task. The specific task is designed which needs to be improved or which needs to be change and accordingly plan is made for the improvements. The plans are executed in the manner of “Plan Do Check and Act (PDCA cycle)”. Doing the activity as per plan, checking the done activity or inspection and acting on the activity for betterment. This concept is involved

in engaging all the people and adding the customer values. Preserving customer values and providing the best to customer as per their requirement in the form of quality and delivering time. This concept integrates the customer values, internal functioning and achievement by the organization. It also involves engagement of all the man power from different department for the common goal and achieving customer satisfaction. The concept involves around the business output of the organization. Involvements of the employee in the functioning of the industry and during making any decision, the input of the employees are also considered. The teams are built and involve in the other prospectus has also been considered as strategies (Yusuf et al. 2007). The concept of TQM is explained in various terminologies. Concept of TQM is similar but many people focus on employee involvement and meeting customer requirements (Talib et al. 2012). Built team and ensure all the person know their task properly and move towards the path of achievement. Involvement of top management and commitment from the top management has been considered as one of the most crucial factor for the success (Van Ho, 2011). This concept will help to build the quality culture throughout the organization and improves their performance in manufacturing and distribution sectors.

3.2 Functioning of organization

The organization overall functioning and performance is measure for its effectiveness. Proper functioning is related to its success in the related field and their potential to achieve the success (Li et al. 2006). Organization made the objective which are considered as short term and long term and timely measure their goal and discuss, is the part to measure the organization function. The capabilities are discussed and relatively action is initiated (Katou, 2008 and Stock et al., 2000). Many authors discuss about the performance of the organization and comparative study is made with business output. Business is considered as main motive of the organization. Increase in the overall business performance has been considered as organization is succeeded. This include overall production of the organization, its sale throughout the year, amount of raw material consumed for its output and internal management cost. The other activities involves amount of market complaint received during the year, internal breakdown and preventive maintenance activities carried out. Overall sales in the year and profit margin are also considered as key factor for business success.

3.3 Organization functioning with respect to Total Quality Management

Due to rise in population, the needs of goods are also increasing tremendously (Harmon and Peterson, 1990). To meet the market requirement and to meet the demand of ever increasing

population in the form of product, service sector and product quality, the implementation of TQM is very essential. The implementation of the TQM tool will leads to increase the production with minimum waste, the defects of the product manufactured with reduced to certain level. The coordination between the different teams will increase and will leads to smooth functioning of the process. The cost of the product will reduce due to reduction of wastage manufactured in the system. Customer satisfaction level will be improved due to increase in the quality output of the product. Involvement of the man power from different department will harmonize the overall organization. The existing man power will become more productive due to sufficient trainings and many developmental sessions. Soltani and Wilkinson (2010) research focus on the views on the Total Quality Management by different layers of organizations life of top management, middle management, managers and ground level people working in the organization. Many organizations have already implemented TQM and have benefited in several forms. But still many organizations hesitate in adopting the TQM concept for organization betterment. Still people are unaware and have not implemented in full fledge. Confidence in adopting TQM is still a question to many organizations. Wen et al. (2009) and Letica (2007) has studied and shows the overall influence of Total Quality Management on the organization performance and customer satisfaction. The study was

conducted on manufacturing units and service sector both. The study also focuses on the way of managing employees in the organization, training conducted by the organization on the employees and leadership process, customer satisfaction and developmental secession. The forces like team building, employee management, leadership and giving importance to the internal and external customer, building quality and customer satisfaction. The study shows the relation between TQM and internal management system of the organization. The TQM practices and customer satisfaction work hand in hand.

4. Objective

1. To explain the concept and philosophy of TQM concept in detail.
2. The role of TQM in the organization performance.
3. Overview of TQM implementation in the organization.

5. Implementation of TQM in the medical device industry

Organization adopts many methods for implementing TQM tools. Medical device is one of the emerging sectors in India and have seen many medical device in India which have implemented TQM. In this research we are taking examples form Mumbai, India for implementation of TQM. India is one of the most growing markets in the world. India is filled with

small and medium scale industries across the country. 50% of the Indian population work in small and medium scale industry. As concern about biotech sector, this sector is growing sector in India. To improve the product quality efficiently, most of the companies in the country have effectively implemented TQM (Raja et al., 2011). Hugh number of the organization is getting benefited from TQM. Different methods of TQM are implemented by many sectors. Main factors for TQM implementation are as follows.

5.1 Rank zero: No control on the process and relation about customer satisfaction

This kind of the organization does not have proper planning in the manufacturing units. The quality of the products manufactured or service provided is not being monitored in regular basis. Many organizations do not have proper objective and goals of the organization. Customer values are not preserved and internal planning phase is completely collapsed (Kamran Moosa, 1998).

5.2 Rank One: Quality Control (QC)

This kind of organization has focused on controlling the quality of the products or the services given. They have managed to check the product quality, appearance and other important attributes. The quality of the product is checked through the different phases of manufacturing (Prakash et al., 2010). The initial raw material and packaging material, intermediate product quality and finished product quality is checked

throughout the cycle of manufacturing. Quality control is widely accepted in manufacturing units.

5.3 Rank Two: Quality Assurance

The organization which falls under this rank has proper grip on process control. Quality control checks the quality of the product or services at several stages. The results of quality control will define the quality at several critical states. Quality assurance deals with the control of processes. It is believed that the quality of the product can't be achieved without proper monitoring of the process. The well-defined process needs to be monitored, critical parameters need to be monitored and process needs to be controlled by validating the process. For building quality management in the system, many organizations adopt systems like ISO 9001, ISO 14001, ISO 13485 and many other systems (Brun, 2010). Mostly all the organizations implement ISO or any other system to set the Quality Management System in the organization. This system will define the processes and set the protocol for management of the entire system of the organization Hayat Awan (2003).

5.4 Rank three: Continual improvements

The organization which falls on this category has direct or indirect impact on the process efficacy, quality of the product or service and overall business of the organization. It is related to the commitment of the top management,

involvement of the employees, training and employee development. Many organizations focus on the continual improvement in order to improve the product quality, process performances, employee involvement and communication. This continual improvement will help organizations deal with process efficacy and quality. The gaps in the systems are identified and modified to achieve the best results. Specific tasks are assigned to employees for improvements. Many TQM techniques like "Just In Time (JIT)", kaizen, six sigma are implemented for betterment (Jamshed, 2000).

4.5 Rank Four: Awarding method

The organization which falls on this category has good domination in the market. Their products and services have good demand in the market. This kind of company has already implemented and has a firm system of quality control, quality assurance and continual improvement. These kinds of organizations have set the value as benchmarking. Organizations from this category set the short term and long term goals and follow the goal and achieve with proper planning and execution. Different tools for process improvement and quality improvements are used. Different modules like software and different system-based software are used and performances are measured given by Kaluarachchi (2010).

6. Conclusions:

This study has compared the organization performance with reference to Total Quality Management Tool. Several research have been seen which have compared the TQM tool and organization outcome in term of business. Research has shown that when TQM is implemented by the organization and found effective, it covers all the aspects of organization from operational view and from financial and other related sector (Hendricks andSinghal, 1999; IttnerandLarcker, 1996). When literature is reviewed regarding impact of TQM and overall business of companies, it is found that TQM has direct or indirect impact on overall output of organization. TQM plays vital roles in the organization to achieve their final goals stated by Dooyoung et al. (1998). After the study, we can conclude that the organization performance, improved product quality, customer satisfaction and reduction of defects is achieved by implementation of Total Quality Management (TQM). Aim of TQM is to increase the satisfaction level of customer, overall communication of the organization increases, number of errors reduced to certain level, leadership character in the company rises. It is clear that organization general performance is directly or indirectly affected by the TQM. Various factors like size of the organization, kind of culture followed in the organization, innovation in the organization, types of organization is neglected during the

implementing TQM. There is further scope in the study to consider the above factor implanting the TQM in the organization. Other study can be made to check the TQM in the factors like organization business, sales, and profits due to TQM implementation.

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References

- Atlanta, GA Ittner, C.D., Larcker, D.F., (1996). Measuring the impact of quality initiatives on firm financial performance. In: Fedor, D.F., Ghosh, S. (Eds.), *Advances in Management of Organization Quality*, Vol. 1. JAI Press, Greenwich, CT, pp. 1-37.
- Baidoun, S. and Zairi, M. (2003). "A Proposed Model of TQM Implementation in the Palestinian Context". *Total Quality Management and Business Excellence*, 14:1193-1211
- Brun A.(2010). "Critical success factors of six sigma implementation in Italian companies" *International Journal of Production Economics*, pp 1-7
- Demirbag M., et al.(2006). An Analysis of the Relationship between TQM Implementation and Organizational Performance. *Journal of Manufacturing Technology and Management*. 17 (6) 829-847.
- Dean, J.W. ,& Bowen, D.E.(1994). Management theory and total quality: Improving research and practice through theory development, *Academy of Management Review* 19 (3) 392-418.
- Dooyoung, S., J.G. Kalinowski and G. El-Enein (1998), models influence company results–conclusions of an empirical study based on the

Delphi method. *Management, Total Quality Management & Business Excellence* 17(6): 775-794.

Gharakhani, D., Rahmati ,H., Farrokhi, M. , Farahmandian, A. (2013). Total Quality Management and Organizational Performance, *American Journal of Industrial Engineering*, Vol. 1, No. 3, 46-50.

Hendricks, K.B., Singhal, V.R., (1999). The long-term stock price performance of firms with effective TQM programs. Working Paper, Georgia Institute of Technology.

Harmon, R. L. and Peterson, L. D., (1990). *Reinventing the Factory: Productivity Breakthroughs in Manufacturing Today*, New York, the Free Press.

Hayat M. Awan. (2003). “ An Evaluation of ISO 9000 Registration Practices” A case study of sports goods industry, *Journal of operations managements*, Vol 29, No 7 , pp 109-134.

Jamshed H. K. (2003). “TQM implementation in Pakistan” Revolutionary V/S Evolutionary approach, *Journal of TQM*, vol 15, no 6 , pp 374-380.

K.A.S.P Kaluarachchi. (2010). “Organizational culture and total quality management practices” A Siri Lankan Case, *The TQM Journal*, Vol 22, no 1, pp 41-55

Katou Anastasia. (2008). "Measuring the impact of HRM on organisational performance", *Journal of industrial engineering and management*, p119-142.

Kamran Moosa .(1998). “Designing organizational infrastructure for world class quality” Pakistan institute of quality control, (ICQI).

Letica, M., S.V .(2007). “TQM and Firms performance: An EFQM excellence model research based survey.

Li, S., Ragu-Nathan, B., Ragu-Nathan, T., &SubbaRao, S. (2006). The impact of supply chain management.

Lakhal, L., Pasin, F. and Liman M. (2006).Quality management practices and their impact onperformance. *International Journal of Quality &Reliability Management*, 23(6): 625-646

Prajogo, D.I., Power, D.J. and Sohal, A.S. (2004). The role of trading partner relationships in determining innovation performance: an empirical examination. *European Journal of Innovation Management*, 7(3): 178-186.

Prakash J. S. (2010), Damien Power and Sum CheeChuong. “A resource dependence theory perspective of ISO 9000 in managing organizational environment” *Journal of Operations Management*, Vol 14, pp 1-16

Raja, M.W., Bodla, M.A., and Malik,S.A., (2011). Evaluating the Effect of Total Quality Management Practices on Business Performance: A Study of Manufacturing Firms of Pakistan, *International Journal of Business and Social Science*, Vol. 2 No. 9

Sachdeva A., et al. Impact of ISO 9000 Certification on Performance of SMEs: A Study of Indian Industry, *International Journal of Management Practice*. 2007. 2 (3) 226-239.

Soltani, E. and Wilkinson, A. (2010).“The effect of in congruency of senior and middle managers orientation on TQM programs” *International Journal of operations and Production Management*, Vol 30, no 4, pp 365-397.

Stock G.N, Greis N.P. and Kasarda J.D. (2000). Enterprise logistics and supply chainstructure: The role of fit. *Journal of Operation Management*, 18, 531–547

Talib F., and Rahman Z.(2010). Critical Success Factors of TQM in Service Organizations: A Proposed Model. *Services Marketing Quarterly*. 31 (3) 363-380.

Talib, F. (2013). An overview of total quality management: understanding the fundamentals in service organization, *International Journal of Advanced Quality Management*, Volume 1, Issue 1, pp. 1-20.

Talib F., et al. (2012). Total Quality Management in Service Sector: A Literature Review. *International Journal of Business Innovation and Research*. 6 (3) 259-301.

Thiagarajan, T., Zairi, M. and Dale, B. (2001). A Proposed Model of TQM Implementation Based on an European Journal of Business and Management Empirical Study of Malaysia Industry. *International Journal of Quality and Reliability Management*, 18 :289-306.

Yusuf Y., et al. (2007). Implementation of TQM in China and Organizational Performance: An

Empirical Investigation. *Total Quality Management*. 18 (5) 509-530.

Van Ho, P. (2011). Total quality management approach to the information systems development processes: An empirical study, Dissertation submitted to the faculty of Virginia Polytechnic Institute and State University, Alexandria, Virginia.

Wen, Y., S., Ken Boon, O., Binshan, L. and Alin, Y., L., C. (2009). "TQM and customer satisfaction in Malaysia's Service Sector" *Industrial Management and Data Systems*, Vol 109, no 7, pp 957-975