

Impact of Total Quality Management Practices on Organisational Performance



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The advent of digitalization has paved way for the contemporary organisations around the globe to take initiatives for enhancing quality. The paper examines the relationship between Total Quality Management (TQM) practices and non-financial organisational performance in manufacturing sector. The study has categorised the Total Quality Management practices / Critical Success Factors (CSF) into Strategic or dominant factors showing long term effects, tactical factors affecting the middle management decisions and operational factors providing short term results. Using convenient sampling, 455 responses were gathered from employees of different manufacturing organizations in and around Chennai. Multivariate techniques results revealed that hard and soft factors have great impact.

Keywords: Quality, Management, Critical Success Factors, Organisational Performance, Multivariate Techniques

1. Introduction

Organizations around the globe have started implementing special initiatives to keep pace with competitors and to attain competitive advantage. The advanced effects of globalization and digitalization have paved way for attaining success with a future perspective along with facing challenges. Contemporary entities are encouraged to enhance their performance. Management practices like quality management are effectively used by both manufacturing and services organisations to increase their profits and to attain long term success. TQM is a holistic approach followed by the management and covers all areas of an organization and external relations of the company. The accomplishment of TQM happened through the comprehensive efforts of the organization, so that the managers & employees at every level of production develop quality to satisfy customers & yield competitive advantage. The advent of foreign products with better quality enhanced the drive among Indian industries to change their manufacturing practice and adapt themselves in a competent manner when compared with foreign manufacturers. The extent of increased competition & increase in expectation of customers, had given rise to face new challenges. Many organizations aim towards customer satisfaction and they gather right information through evaluation and feedback system and follow change in process and product adaptation. The organizational success is portrayed through the use of training, internal and external audits and quality circles. Oakland (2011) TQM is concerned with focusing on each individual, so that people are responsible for their performance. The excellence & effectiveness of an organization depends on the performance of people in the integration of individual goals with organizational goals.

TQM practices/ Critical Success Factors of TQM

The success of TQM depends on the Critical Success Factors. The CSF's are the critical areas, which organization must aim to fulfill, to achieve its mission. The CSF's are categorized into **strategic/ dominant factors** wherein the effect is for the long term of the company. The prominent factors are TMC, OC, CI, and Bench marking. The second classification is called **tactical factors** which affect the decisions made by middle management. They include employee empowerment, employee involvement, employee training, team building & problem solving, use of IT, supplier relationships. **Operational factors** are those which provide consequences in the shorter period. They include product & service design, process control, management of customer relationships.

Measurement of Organisational Performance

Dimension of performance is grouped under financial & non-financial. The former reflects managers' ability to operate under resource & budget capacity and the latter indicates the ability to manage staff and customer satisfaction. In service-oriented organizations quality management results in the improved customer service, which offers two benefits, firstly a higher customer retention rate because existing customers are highly satisfied and inclined to come back and secondly, ability to attract new customers. Market competition is also a source to measure the organizational performance, the intensity of price competition, the intensity of competition in promotion as well the intensity of competition in product and service quality. TQM's non-financial benefits combined with cost reduction leads to improved financial performance. The higher the degree of market competition, the more positive the relationship between the TQM practices of customer focus and organizational performance.

2. Review of Literature

Faisal Talib & etal., (2010) by their study made an integration between Total Quality Management and Supply Chain Management. The study concluded that the ultimate goal of both the practices is customer satisfaction & attaining

organizational competitiveness. Masters & Frazier (2007), the concept of TQM is to make the organization operate in satisfying the requirements of a product, integrating the product for quality requirements & customer satisfaction.

Ebrahim Soltani & et al., (2010) the study has made an attempt to find out whether control among workforce is implemented as a process to achieve the outcomes of TQM. The study also tries to achieve it further by making an empirical investigation with 47 respondents. The study from its qualitative research has observed that the control Process leads to effective achievement of outcomes. 47 interviews were carried out during a two-year time period (2004–2006). To elicit the views and opinions of various managerial levels at the three case study organisations on applications of control and their implications for employees, customers and effectiveness of TQM programmes, the interviews involved open-ended questions and covered topics such as the nature of control, the variation in control prior to and after adoption of TQM initiatives, the consistency between senior management control with that of middle and first line managers, the relationship between control and effectiveness of TQM programmes.

Tritos Laosirihongthong (2010) The study tries to explore the relationship between firms Niche Market strategy targeting specific market segments & broad market strategy serving wide range of customers along with specifying 3 sets of operations practices (viz) Lean Manufacturing, TQM, SCM. The study states that TQM and JIT practices to be not only mutually supportive, but that their synergy contributed positively to performance. The total usable responses taken for the study were 329. The Reliability and Factor analysis used. The principal component analysis was also used to examine the uni-dimensionality of the latent variables. The study in order to carry out the in depth analysis has used Multi variate analysis. Hierarchical cluster analysis and multiple linear regression was also employed by the study. Further it has also used two stage structural equation modeling. This study provides specific insights into the relationships between market focus, process management, workforce commitment, relationship development, and operational performance for manufacturers in Thailand.

Omprakash K. Gupta, (2012) this paper aims to understand the role of soft TQM dimensions in the successful implementation of TQM & its effect on firms performance. The study has used secondary data to carry out its research. It is depicted that the study adopts value chain analysis, balanced score card to identify the critical success factors for implementation of TQM in order to prove its effect on firms performance. The balanced scorecard is a strategic planning and management system that is used extensively in business and industry, government, and non-profit organizations worldwide to align business activities to the vision and strategy of the organization, improve internal and external communications, and monitor organizational performance against strategic goals. The balanced scorecard is a measurement system that enables organizations to clarify their vision and strategy and translate them into action. It provides feedback around both the internal business processes and external outcomes in order to continuously improve strategic performance and results.

Kismie Sulisyowati, (2007) this research aims to analyze the objective of external business environment has insignificant effect towards company performance. The TQM Practices does not have a positive relation with company performance. The population chosen for the study was 154 manufacturing companies, that has been certified as ISO 9000 in east Java in order to carry out the research further the primary and secondary was used. The primary data was collected through questionnaire, which was sent by mail. The respondent were operations manager or quality control manager. The analysis was carried out through reliability analysis, descriptive statistics method. For the purpose of the analysis the study has classified the external environment in to macro or external environment wherein the elements like political/legal, technological force can affect the performance of existing companies and the latter is said to be the industrial environment wherein the elements like suppliers power, power of substitute products affect the company directly. The study findings show that competitive strategy acts as a mediation effect directly and indirectly in improving the business performance.

Therese Joiner (2006) in his study considered only the human factors (viz) leadership style, employee type, interaction with employees & their commitment, attitude towards change & its influence on enhancing OP (financial & non-financial). The study concluded that co-worker support and organizational support enhances OP. Daniel Projago (2013) suggested that the differentiation strategy adopted in TQM practices & OP, combine together in enhancing performance both in quality as well as in innovation & TQM stands as a partial mediator between differentiation strategy and product quality, product innovation & process innovation

3. Need and objectives of the study

The aim of the study is to make an attempt and to make the manufacturing industries realize about the benefits derived from quality implementation and to deliver quality products according to the requirements of customers by integrating TQM philosophies and practices along with identifying key driving forces that promote TQM and promote organizational growth. To find the relationship between TQM practices and non-financial organizational performance [NFOP]

4. Research Design and Methodology

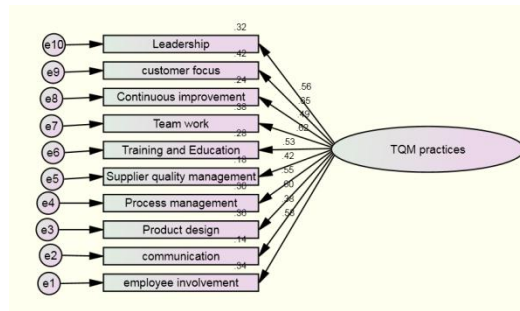
The sampling unit chosen for the study is the manufacturing industries in and around Chennai, after a thorough scrutiny of manufacturing industries around Tamil Nadu. The data needed for the study were collected through primary & secondary sources. The primary source comprised of the questionnaire needed for the study and the secondary source was obtained through Management Journals, Magazines, Company Publications, Directories, Bulletins etc. The study has used convenience sampling technique. The researcher circulated 5 questionnaires each in all the selected 150 companies. Out of 750 questionnaires distributed, the total number of questionnaires that were returned back to the researcher were 600 and considered as usable by the researcher was 455.

5. Data Analysis and Interpretation

Null Hypotheses: There is no relationship between TQM practices & non – financial organizational performance. The researcher used the Confirmatory Factor Analysis for confirming the TQM practices and Non-Financial organizational performance.

STAGE ONE

In the case of confirming the TQM practices (Factors) the following model



Source: Primary Data

After confirming these factors model fit indices are also verified for the factors of TQM Practices

5.1 Table showing Model Fit Indices

Comparative Fit Index	0.891
Goodness of Fit Index	0.895
Normed Fit Index	0.888
Non- Normed fit Index	0.892
Root Mean square of estimation	0.08

So these values are satisfying the benchmark for the model fit. Therefore, the researcher confirmed the ten factors of TQM practices.

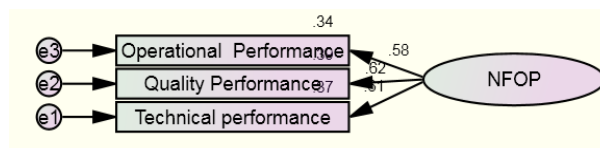
5.2 Table showing Correlation values

Top Mgt Commitment	0.56
Customer Focus & satisfaction	0.65
Training & education	0.53
Continuous improvement	0.49
Supplier Quality Management	0.42
Communication	0.38
Teamwork	0.62
Process Management	0.55
Product Design	0.60
Employee Involvement	0.58

Source: Primary Data

Stage Two

In the case of stage two the researcher confirms the factor through the CFA model fit.



From the above model it is found that the squared Multiple Correlation indicated that the correlates that exist between the NFOP and OP, QP, TP.

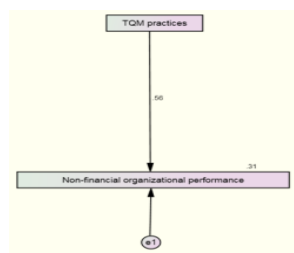
OP = 0.58, QP = 0.62, TP = 0.61

After confirming these factors model fit indices are also verified for the factors of TQM Practices

5.3 Table showing Model Fit Indices

Comparative Fit Index	0.901
Goodness of Fit Index	0.894
Normed Fit Index	0.888
Non- Normed fit Index	0.874
Root Mean square of estimation	0.08

These values indicated that the factors of TQM practices and three factors of NFOP, the researcher confirmed the relationship between TQM practices and NFOP. The application of SEM confirms the nature of relationship as shown the following model fit.



From the above model it is found that TQM practices and NFOP are highly related with squared Multiple correlation Co-efficient 0.56 which is above the benchmark value of 0.3. Therefore, it is confirmed that TQM practices and NFOP are well related. Infact, TQM practices create significant impact on NFOP.

5.4 Table showing Model Fit Indices

Comparative Fit Index	0.861
Goodness of Fit Index	0.879
Normed Fit Index	0.831
Non- Normed fit Index	0.881
Root Mean square of estimation	0.07

These values satisfy the relationship that exist between TQM practices and NFOP.

6. Suggestions and Conclusion

TQM helps the manufacturing entities to reframe the conventional business approaches and march towards organizational excellence by adopting learning and growth perspectives through training, innovation in product and work process.

While employing the human capital, the top management of the organisations effectively distribute the knowledge, skills to the entire organization. The main aim is to obtain a favourable outcome. Human capital is trained effectively to focus on customer requirement, supplier requirement, product design, process management, teamwork, employee involvement, continuous improvement. Communication is an effective link to attain quality and the manual resources are continuously monitored and communicated about their performance. Teamwork paves way for cross-functional teams with a blend of experts and incumbents to attain specialization.

Continuous improvement otherwise called as kaizen is emphasized for short term as well as long term. The CI strategies should be combined with benchmarking (i.e) product and process to bring in effective results. It should also focus on employees wherein knowledge enhancement will have to be given priority. It should concentrate on error free and defect free output to face the competition for existing as well as new products.

Selection of suppliers should not be demarcated within the internal boundaries. Concentration should be made to select suppliers on the basis of cost, on the basis of uninterrupted furnish of materials. A perpetual research for effective designing of products should be involved, designing of products should encourage the suggestion from non-technical personnel and the execution of it by technical personnel to enhance technical performance.

Operational performance is enhanced in the organization through better corporate governance. Communication has increased the operational performance of workforce by formulating effective communication channels to formulate decisions

and execute them from employees. The organizations have realized better quality performance since they have ensured better suppliers and by engaging technical and non-technical employees to attain quality in output.

The future of quality states an axiom that quality enhancement and quality achievement is possible by doing things efficiently and effectively. Execution of things in the proper manner in the very first attempt stands as the base for quality realization in the minds of management, employees, customers, suppliers and other stakeholders related to the business.

The monitoring of quality in the organization should be in such a way that the Meticulous workers convert themselves as exemplary performers, the optimistic employees to meticulous employees and Improvement seekers to optimistic employees.

7. References

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