

TQM and its Effect on Organizational Performance

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ABSTRACT

TQM is a comprehensive system approach that works horizontally across an organization, involving all departments and employees and extending backward and forward to include both suppliers and clients/customers. The overall impact of TQM implementation on business performance is evaluated by its impact on customer satisfaction, profitability, supplier focus, leader-ship etc. in this paper.

Keywords : TQM, Over all, Business, Performance, Employées

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INTRODUCTION

Total Quality Management

Total quality management (TQM) refers to management methods used to improve quality and efficiency in organizations, mostly in businesses. TQM is a wide-ranging system approach that works like an organization, linking all departments and employees and ranging backward and forward to having both suppliers and clients/customers.

TQM Principles

Specifics related to the framework and implementations of TQM vary between different management professionals and TQM program facilitators, and the passage of time has inevitably brought changes in TQM emphases and language. But all TQM philosophies having mutual threads that highlight quality, collaboration and proactive philosophies of organization and process development. As Howard Weiss and Mark Gershon observed in Production and Operations Management, "The terms quality management, quality control, and quality assurance often are used interchangeably. Regardless of the term used within any business, this function is directly responsible for the continual

evaluation of the effectiveness of the total quality system". They go on to delineate the basic elements of total quality management as expounded by the American Society for Quality Control:

- [1] Policy, planning, and administration;
- [2] Product design and design change control;
- [3] Control of purchased material;
- [4] Production quality control;
- [5] User contact and field performance;
- [6] Corrective action; and
- [7] Employee selection, training, and motivation.

Making TQM Work

Joseph Jablonski, author of Implementing TQM, identified three characteristics necessary for TQM to succeed within an organization: participative management; continuous process improvement; and the utilization of teams. Participative management refers to the intimate involvement of all members of a company in the management process, thus de-emphasizing traditional top-down management methods. In other words, managers established policies and make important decisions only with the input and supervision of the subordinates that

will have to apply and adhere to the directives. This technique recovers upper management's grasp of operations and, more importantly, is an important motivator for workers who begin to feel like they have control and ownership of the process in which they participate. [1-5]

Continuous process improvement, the second characteristic, involves the recognition of minor, incremental gains toward the goal of total quality. Large gains are accomplished by minor, sustainable perfections over a long term. This concept requires a long-term approach by managers and the willingness to invest in the present for reimbursements that manifest themselves in the future. A corollary of continuous improvement is that workers and management develop an appreciation for, and confidence in, TQM over a period of time.

Teamwork, the third necessary ingredient for the success of TQM, includes the organization of cross-functional teams within the company. This multidisciplinary team method helps workers to share knowledge, recognize problems and opportunities, raise a comprehensive understanding of their role in the over-all process, and align their work goals with those of the organization.

Jablonski also identified six attributes of successful TQM programs:

Customer focus (includes internal customers such as other departments and co-workers as well as external customers)
 Process focus prevention versus inspection (development of a process that incorporates quality during production, rather than a process that attempts to achieve quality through inspection after resources have already been consumed to produce the good or service)
 employee empowerment and compensation fact-based decision-making receptiveness to feedback.

RESEARCH METHODOLOGY

There were four main steps in the methodology used in our research study:

- [1] Choosing the appropriate performance measures.
- [2] Gathering a sample of organizations that have effectively implemented TQM.
- [3] Developing a questionnaire and distributing it to the selected organizations.
- [4] Empirical analysis of data obtained, to find the impact of TQM on organizational performance.

Any attempt to establish the link between TQM and organizational performance must focus on firms that have implemented TQM effectively. This is significant because while most firms will claim that they have executed TQM, few are doing it effectively. As well as non-effective implementers will ambiguous the impact of TQM. Effectively implementation means that the key values of TQM such as focus on customer gratification, employee participation, and continuous improvement are well accepted, practiced, and deployed within the firm. [6-11]

We used the ISO 9000: 2000 certified company as a proxy for effective implementation of TQM. A review of ISO 9000: 2000 criteria confirmed that the core concepts and values emphasized are those that are widely considered to be the building blocks of effective TQM implementations. ISO 9000: 2000 certifications are given after the applicant goes through a multi-level evaluation process where internal or external experts judge the applicant.

A questionnaire survey was developed and distributed. The empirical data were obtained from a survey of award winning Indian manufacturing industry. The responses of questionnaire survey were analyzed using a multiple regression technique. The reliability and validity

(construct, content, and criterion) of the practice and performance measures were evaluated. Confirmatory factor analysis is used to test the psychometric properties of the measurement scales and the hypothesized relationship between TQM practices and firm's performance are examined using structural equation modeling.

Also, we present evidence on the financial results that publicly traded organizations have achieved from implementing TQM effectively. Financial results are measured using variables such as stock returns, operating income, sales and costs.

Structural equation modeling (SPSS Amos 20.0) was employed in testing the hypothesizes in this research. In this chapter, only the structural model is estimated.

HYPOTHESIS

H1: Customer Focus is positively related to customer satisfaction.

H2: Results and recognition is positively related to employee satisfaction.

H3: Leadership is positively related to employee satisfaction.

H4: Leadership is positively related to Key Performance Results (KPR).

H5: Supplier focus is positively related to KPR

ANALYSIS

Reliability Analysis

Cronbach alpha is a measure for the internal consistency of the items that together covers the specific (new and underlying) factor. In general, a value of 0.60 is acceptable. Also, Cronbach Alpha values for result construct are as in the Table 1-2.

All our factors have Cronbach alpha value above 0.60 which shows the internal consistency of items.

Table 1. Cronbach Alfa value (Results).

S. No.	Items	Cronbach Alpha
1.	Client's Result	0.63
2.	People Result	0.69
3.	Societal Result	0.66
4.	Key Performance Result	0.86

Table 2. Cronbach Alfa value (CSF's).

S. No.	Items	Cronbach Alpha
1.	Customer Focus	0.62
2.	Communication	0.63
3.	Delegation	0.69
4.	Continuous Improvement	0.64
5.	Results and recognition	0.63
6.	Leadership	0.64
7.	Process Improvement	0.67
8.	Supplier Focus	0.64
9.	Team Work	0.65
10.	Value and Ethics	0.67
11.	Work Culture	0.64
12.	Strategy	0.66

Correlation Analysis

Correlation between TQM Constructs and Results (Peoples') shown in Table 3. Correlation between TQM Constructs and Results (Clients') shown in Table 4-5.

Table 3. Correlation between TQM Constructs and Results (Peoples').

S. No.	Items	(Correlations)
1.	Customer Focus	0.74***
2.	Communication	0.24*
3.	Delegation	0.74***
4.	Continuous Improvement	0.49***
5.	Results and recognition	0.84***
6.	Leadership	0.62***
7.	Process Improvement	0.43**
8.	Supplier Focus	0.92***
9.	Team Work	0.34**
10.	Value and Ethics	0.57***
11.	Work Culture	0.61***
12.	Strategy	0.51***

** $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 4. Correlation between TQM Constructs and Results (Clients').

S. No.	Items	Correlations
1.	Customer Focus	0.79***
2.	Communication	0.35**
3.	Delegation	0.69***
4.	Continuous Improvement	0.47***
5.	Results and recognition	0.82***
6.	Leadership	0.64***
7.	Process Improvement	0.42**
8.	Supplier Focus	0.80***
9.	Team Work	0.52***
10.	Value and Ethics	0.58***
11.	Work Culture	0.54***
12.	Strategy	0.54***

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 5. Correlation between TQM Constructs and Results (KPR).

S. No.	Items	(Correlations)
1.	Customer Focus	0.63***
2.	Communication	0.27
3.	Delegation	0.56***
4.	Continuous Improvement	0.48***
5.	Results and recognition	0.64***
6.	Leadership	0.56***
7.	Process Improvement	0.57***
8.	Supplier Focus	0.68***
9.	Team Work	0.35**
10.	Value and Ethics	0.68***
11.	Work Culture	0.58***
12.	Strategy	0.59***

CONCLUSION

Customer Focus

The structural effect of customer focus on customer satisfaction is positive (0.79) and significant ($p < 0.001$). Therefore, the authors have to accept the hypothesis (H1) that customer focus is positively related to customer satisfaction.

RESULTS AND RECOGNITION

The hypothesis (H2) that recognition and reward have a positive effect on employee satisfaction was strongly confirmed by the survey data with structural loading of 0.84 ($p < 0.001$).

Leadership

The questionnaire findings revealed that leadership has positive effects on employee satisfaction ($P < 0.001$) and key business performance ($P < 0.001$) with structural loading of 0.62 and 0.56 respectively (H3 and H4).

Supplier Focus

The questionnaire survey findings revealed that supplier focus ($p < 0.001$) has a positive effect on key performance results with structural loading of 0.68 (H5). So, all the hypothesis is confirmed with data analysis.

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