

## IMPLEMENTATION OF TOTAL QUALITY MANAGEMENT

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### Abstract

Total quality management (TQM) is measured as an important factor for the long term accomplishment of an organization. TQM implementation has been an important aspect for improving organizational efficiency. The relations between TQM and performance have been investigated by numerous scholars. While examining the relationship between TQM and performance specialists have used different performance types such as innovative, financial, quality performance and operational. Latest revision on total quality management has examined the relationships between the Total quality management and organizational performance. TQM focuses on continuous process improvement within organizations to provide superior customer value and meet customer requirements. TQM a popular guideline for organizational management is implemented for developing strategic info maps and info charts for an information organization.

### Introduction:

Total quality management (TQM) is a Firm-wide management philosophy of continuously improving the quality of products/services/processes through aiming customers' needs and prospects to enhance customer satisfaction and Firm performance. There are mixed results about the relationship between total quality management practices and performance. The reasons are, earlier studies used different methods, different TQM variables, and different performance measures in their research models. They were performed in different contexts such as different nations and different trades.

Research will appropriate analytical methodologies and measuring tools can significantly put into investigating work on TQM which analyzed reasons of relationship between TQM practices and performance. aims of work are finding the impact of TQM practices on various firm performances, investigating reasons and difficulties of implementing TQM practices, and using appropriate analytical techniques and statistical analysis methods to investigate relationship between TQM practices and firm performances.

### Total Quality Management Strategy

Term strategy Means In order to know the concept of strategic management, first we need to understand the literal meaning of the word "strategy". The science and art of using all the forces of a nation to execute approved plans as effectively as possible during peace or war. The art of military command as applied to the overall planning and conduct for large warfare acts.

A plan of action resulting from strategy or intended to accomplish a specific goal. The art or skill of using strategic endeavors such as politics and business

When an organizations chooses to make quality a major competitive edge (differentiation), it becomes the central issue in strategic planning. This is especially reflected in vision, mission and policy guidelines of an organization. An essential idea behind strategic quality planning is that the product is customer value rather than a physical product or service. This feat cannot be achieved unless an organization creates a culture of quality and no strategy and plan can be useful unless it is carefully implemented.

The quality policy is a guide for everyone in the organization as to how they should provide products and services to the customers. It should be written by the chief executive with feedback from the workforce and be approved by the quality council. A quality policy is a requirement of ISO 9000. Four components frequently cited as critical to a successful TQM strategy are customer satisfaction, employee involvement, supervisory control, and process improvement and control. Marketing philosophy is predictable importance of customer satisfaction to the business organization. Quality focused organizations must identify their customers (both internal and external), determine the specific requirements of these customers, integrate all activities of the organization to satisfy the needs of these customers, and finally, follow up to ensure the customers have been satisfied. The organization should represent alternate approaches to improving the effectiveness and efficiency of an organization's operations function. And it is used to track the effectiveness of the TQM process, select quality improvement projects, and provide cost justification to pessimists. By bringing together these easily assembled costs of review, inspection, testing, scrap, and rework, one can convince management and others of the need for quality

improvement." Cost of quality has received increasing attention in recent years. It is effective in its intended purpose of raising attentiveness about quality and communicating to management the benefits of TQM in terms of money. Under TQM systems, product/service design efforts have two objectives: designing manufacturable products and designing quality into the products. Designing to simplify engineering utilizes cross functional teams to reduce the number of parts per product and standardize the parts, which results in more efficient process management by reducing process complexity and process variance. Effective supplier quality management is facilitated by long term, cooperative relationships with as few suppliers as possible to obtain quality materials and/or services. Maintaining a small number of suppliers improves product quality and productivity of buyers by encouraging enhanced supplier commitment to product design and quality. Quality creates not only a price/value advantage over competitors but also enables the firm to charge a higher per/unit sale price through differentiation. A strategy of high quality leads to a sustainable competitive advantage. Firms competing on quality pursue an operational strategy that controls quality of the product/service and seeks continuous improvement.

### **Implementing a Quality Management System**

Successful organizations have figured out that customer satisfaction has a direct impact on the bottom line. Creating an environment which supports a quality culture requires a structured, systematic process. Following are steps to implementing a quality management system that will help to bring the process full circle. Generic Strategy Model for Implementing TQM

Systems as follows,

1. Top management learns about and decides to commit to TQM. TQM is identified as one of the organization's strategies.
2. The organization measures present-day culture, customer satisfaction, and quality management systems.
3. Top management identifies core values and principles to be used, and communicates them.
4. A TQM master plan is developed on the basis of above 1, 2, and 3 steps.

5. The organization identifies and prioritizes customer demands and aligns products and services to meet those demands.
6. Management maps the critical processes through which the organization meets its customers' needs.
7. Management oversees the formation of teams for process improvement efforts.
8. The momentum of the TQM effort is managed by the steering committee.
9. Managers contribute individually to the effort through planning, training, coaching, or other methods.
10. Daily process management and standardization take place.
11. Progress is evaluated and the plan is revised as needed.
12. Constant employee awareness and feedback on status are provided and a reward/recognition process is established.

The TQM element approach takes key business processes and/or organizational units and uses the tools of TQM to foster improvements.

### **Establishing and implementing a Quality Management System (QMS)**

Establishing a quality management system helps organizations run effectively. Before establishing a quality management system, the organization must identify and manage various connected, multi functional processes to ensure customer satisfaction is continuously achieving the target. There are many things to consider when establishing a QMS for your organization. Of great importance is ensuring it is a strategic choice influenced by the varying objectives, needs, and products and services provided. This structure is based largely on the Plan-Do Check-Act (PDCA) cycle and allows for continuous improvement to both the product and the QMS. The basic steps to implementing a quality management system are

**Design& Build** The design and build portions serve to develop the structure of a QMS, its processes, and plans for implementation. Senior management must administer this quota to ensure the needs of the organization and the needs of its customers are a driving force behind the systems development.

**Deploy Deployment** is best served in a granular approach via breaking each process down into sub processes, and educating staff on documentation, education, training tools, and metrics. Company intranets are increasingly being used to assist in the deployment of quality management systems.

**Control& Measure** Control and measurement are two areas of establishing a QMS that are largely accomplished through routine, systematic audits of the quality management system. The specifics prominently differ from organization to organization depending on size, potential risk, and environmental impact.

**Review and improvement** deal with exactly how the results of an audit are handled. The goals are to determine the effectiveness and efficiency of each process toward its objectives, to communicate these findings to the employees, and to develop new best practices and processes based on the data collected during the audit.

Implementing a quality management system affects every aspect of an organization's performance. Two overarching benefits to the design and implementation of documented quality management systems include Meeting the customer's requirements, which helps to inculcate confidence in the organization, in turn leading to more customers, more sales, and more repeat business. Meeting the organization's requirements, which ensures compliance with regulations and provision of products and services in the most cost- and resource-efficient manner, creating room for

expansion, growth, and profit. Within these overarching benefits are advantages like helping to communicate a readiness to produce consistent results, preventing mistakes, reducing costs, ensuring that processes are defined and controlled, and continually improving the organization's offerings.

## **Elements and requirements of a quality management System**

Although any quality management system should be created to address an organization's unique needs, there are some general elements all systems have in common, including: The organization's quality policy and quality objectives, Quality manual, Procedures, instructions, and records.

1. Data management
2. Customer satisfaction from product quality
3. Improvement opportunities
4. Internal processes
5. Quality analysis

Each element of a quality management system serves a purpose toward the overall goals of meeting the customers' and organization's requirements. Ensuring each of the elements of a QMS is present ensures proper execution and function of the QMS.

## **Strategic Quality Planning**

Strategic quality planning includes vision, mission, and values of the firms. They are formed by taking into account the quality concept. With effective strategic quality planning efforts, employees are taken as an input in developing the vision, mission, strategies, and objectives. This facilitates acceptance and support of strategic quality plans by the employees. Successful strategic quality planning efforts also take into account the possible side effects of the plan to the environment prior to the production. This will protect and improve social responsibility of the firm. Previous studies have found that strategic quality planning is positively associated with operational performance, inventory management performance, society results, customer results, and market performance. However, strategic quality planning is not statistically related to perceived performance in the mainframe industry. Thus, we propose the following hypothesis: the proposed research model of the relationship between TQM practices and performance measures including hypotheses. the proposed research model of the relationship between TQM practices and performance measures.

## **Failure Mode Effects Analysis (FMEA)**

Also called potential failure modes and effects analysis; failure modes, effects and criticality analysis (FMECA). Failure modes and effects analysis (FMEA) is a step-by-step approach for identifying all possible failures in a design, a manufacturing or assembly process, or a product or service. "Failure modes" means the ways, or modes, in which something might fail. Failures are any errors or defects, especially ones that affect the customer, and can be potential or actual.

"Effects analysis" refers to studying the consequences of those failures. Failures are prioritized according to how serious their consequences are, how frequently they occur and how easily they can be detected. The purpose of the FMEA is to take actions to reduce failures or eliminate, starting with the highest-priority ones.

Failure modes and effects analysis also documents current knowledge and actions about the risks of failures, for use in continuous improvement. FMEA is used during design to prevent failures. Later it's used for control, before and during ongoing operation of the process.

conceptual stages of design and continues throughout the life of the product or service. Begun in the 1940s by the U.S. military, FMEA was further developed by the aerospace and automotive industries. Several industries maintain formal FMEA standards. What follows is an outline and reference. Before undertaking an FMEA process, learn more about standards and specific methods in your organization and industry through other references and training.

#### When to Use FMEA

- When a process, product or service is being designed or redesigned, after quality function deployment.
- When an existing process, product or service is being applied in a new way.
- Before developing control plans for a new or modified process.
- When improvement goals are planned for an existing process, product or service.
- When analyzing failures of an existing process, product or service.
- Periodically throughout the life of the process, product or service

FMEA Example: A bank performed a process FMEA on their ATM system. The function "dispense cash" and a few of the failure modes for that function. The optional "Classification" column was not used. Only the headings are shown for the rightmost (action) columns. Notice that RPN and criticality prioritize causes differently. According to the RPN, "machine jams" and "heavy computer network traffic" are the first and second highest risks.

One high value for severity or occurrence times a detection rating of 10 generates a high RPN. Criticality does not include the detection rating, so it rates highest the only cause with medium to high values for both severity and occurrence: "out of cash." The team should use their experience and judgment to determine appropriate priorities for action.

All aspects of TQM practices should be effectively managed in a firm because each factor in TQM practices improves different aspects of firm performance. The combined effect among the TQM factors brings about exceptional or crucial improvements in the firm performances. Firms should improve employee involvement/skill and firm structure and allocate sufficient resources to implement TQM successfully Measurement Scales, Survey Items, and their Sources Only the items that remained another the reliability tests and EFA are given in the appendix. The sources of each item in the questionnaire are given in the parenthesis at the end of the related item. Recent research on total quality management has examined the relationships between the Total quality management and organizational performance. Many researchers have examined the link between total quality management (TQM) and financial performance. Researchers such as, provide evidence to show that effective TQM implementations improve long term profitability and stock returns.

1. Quality leads to lower costs as defects are reduced.
2. Quality is made in the boardroom, it cannot be instilled into shop floor without the initiative and commitment of top management.
3. Most defects are caused by the system not the worker.

4. Inspection is too late; aim to reduce defects during production and eliminate mass inspection.
5. Eliminate numerical quotas, slogans, exhortation and targets for the workforce and promote sustained and continuous improvement of process and quality of output.

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