

# An approach towards Effectiveness of Total Quality Management and its influencing Factors

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**Abstract**— *Quality is the most crucial thing for any service or product offered. For an enterprise to be competitive in the market, it should focus on the customers as well as meet the implied needs and expectations. Therefore, the firms and enterprises have started using total quality management (TQM) to improve their products and services. The implementation of TQM to tackle the cutthroat competition has emerge as the unanimity in firms. But, its achievement rate in businesses has been shallow. Firms cannot cast off the concept of traditional management and without a doubt apprehend the motive of TQM practice; they also cannot put into effect TQM at the comprehensive and process concept. This paper methodically classifies the associated written work of various studies, investigates the literature and ultimately evaluates it in a systematic way. The pivotal finding of this research has an intimate analysis of TQM, its principles and factors influencing TQM.*

**Keywords**—TQM, Factors of TQM, Principles of TQM.

## I. INTRODUCTION

Quality refers to the capability of products and services to achieve customer satisfaction. It is basically fitness for use [8]. Quality is multidimensional and it is classified based on perspective or views. Each view comes with a particular context.

Core components of quality: -

- Quality is based on customer satisfaction by acquiring a product
- The organization must define quality parameters before it can be achieved
- Management must lead the organization through improvement efforts
- Continuous process improvement is necessary

In a dynamic environment, [5] the need for quality is rising because it is the most crucial issue for corporations to thrive within the changing world market. Quality is important in deciding the economic effectiveness of producing corporations. Corporations gain back and forth competition and bigger share in market through remarkable performance by giving an exceptional quality product for customers. The idea of TQM has been evolved as a consequence of fierce international competition. Corporations with worldwide trade and competition have endowed extensive deliberation to TQM. An increasing range of corporations use TQM as a base for having a leverage over other enterprises. However, some organizations are still stuck to the traditional way of management and hence ignore the idea of total quality management.

TQM is basically a management approach that seeks to achieve success through customer satisfaction. It is commercial enterprise control approach used to enhance products and services with the aid of specializing in organizational process measurements and controls.

TQM integrates elementary management techniques, current improvising efforts and technical tools with an approach that targets continuous improvement. It incorporates both the quality of management and the quality of processes [6].

The components of TQM can be divided into 2 parts; the management system which includes leadership, planning and human resources and the technical system which includes TQM tools and techniques or into soft and hard parts[2].

## II. LITERATURE REVIEW

WAY Yusoff, Issam Badawi, M.Aichouni, Mohamad Boujelbene [1] suggested a survey which is carried to analyze the amount of exercise on TQM components together with a non-stop development machine, training and schooling, the height of the superior management's cognizance and the mindset in the direction of imposing

TQM process and to locate the crucial elements detected by way of the production industries.

Amir Azizi, Pahang Darul Makmur [2] carried an examination in which the vital strategies in total software management (TQM) are focused. Then the chance of prototyping a cohesive structure changed such that it allows to give the correlation among the essential strategies and the concern of efficient measure of each approach in a correct utilization of TQM in automobile enterprise as standard version. The current nice paradigms highlight the significance of consumer pleasure as a measure to the refinement technique. This examine additionally centered on the customer's restitution technique by way of several crucial factors. Here, we have performed an actual look so that you can validate the significance of efficiency of the important strategies for TQM application and development and how it affects the TQM consequences. This cohesive construct has proposed the usage of withdrawing information and experience from business and academics who had the command of quality in the field of several automotive companies.

Dinh Son NGUYEN [3] has said that nowadays, the improvement of Science and Information technology helps engineering product designer to remedy the increasingly complicated and difficult requirements of clients for product. The first-rate guarantee of designed product all through its existence cycle plays a very critical function within the context of world and concurrent financial system. Many distinctive components of the final product are made of raw material, unique places and production approaches. The designed product runs the threat of being unsatisfactory to necessities of customers. as a consequence, this paper proposes a way that permits coping with the great of product throughout its lifestyles cycle at layout stage.

According to Joseph S. Colson, Jr. Edward M. Prell [4], this paper focuses on how the software encounters a problem which is more usual to many companies acting as a way to continuously enhance the quality of the software, reduce the duration between the production of the product and its deployment, decrease costs, and boom sales. During the recent years, it is found out that we ought to construct and manipulate our design system with the exact amount of diligence and attempt that we used to layout and handle our products. It condenses the perspective, cutting-edge fame, and some recent outcomes of our attempts to analyze, construct, and reach the best system in order to look for the global initiatives.

Zakuan, N.M., Yusof, S.M. and T. Laosirihongthong [5] suggested that in operation management/method research subject, Total Quality Management (TQM) has

been taken into consideration as infrastructural method. both manufacturing and service agencies trend to implement this approach as a way to hold their competitive blessings. The aim of this examination at is to broaden the conceptual version of TQM implementation. Authors evaluate up to date literature on TQM studies organized alongside primary subject matters: [9] evolution of TQM considering as a set of exercise, and its consequences to organizational performance. Two research questions have been forwarded in order to re-approve the TQM frame: (a) Are the practices related with TQM valid as an entire frame? (b) What quality measures must be taken into consideration to exhibit the successfulness of its execution?

### III. FACTORS INFLUENCING TQM

#### A. *Leadership* [7]

Since the senior management are the driving force of any organization, their decision-making capabilities impact the strategies employed. All the major activities and functions in an enterprise require guidance, support and instinct of the senior leadership. The managers who are effective and efficient help in continuous development of the organization and help in achieving organization's mission and vision. Therefore, it is necessary that the senior team have a good understanding of TQM and its principles. They should know how to lay down effective policies for the organization and measures for empowering the employees. Many senior management teams still focus on traditional management where in the employees are unaware of the mission and vision of the organization. This leads to an ineffective functioning of the organization. The senior management should enforce and promote the implementation of TQM for an effective functioning and quality generation of products.

#### B. *Human Resource Management* [7]

The enterprise should treat their employees as vital and essential resources. The aim should be maximizing the qualities and participation of employees. A happy and satisfied employee will contribute more in achieving the goals set by superiors. Therefore, there should be training and development programs focusing on all round development of all the employees. There should be open, direct and transparent communication between the employer and the employees. Employees' outlook of TQM will result in greater satisfaction and make them realize quality as their responsibility.

### C. *Consumer Focus* [7]

The organization should have a belief of “customer first”. The main focus and idea of TQM is to achieve customer satisfaction. A happy and satisfied customer will buy more products and will become loyal to the brand or the organization. This will make the business more profitable as they will have a loyal consumer base. The increased profitability will lead to greater competitive edge over other businesses. Enterprises should sell products and services according to implied customer needs. There should be mechanisms that allow consumers to provide their inputs or complaints through feedbacks. These customer feedback should be considered for developing any product or service to enhance the innovation process.

### D. *Information Analysis*[7]

This refers to management of data, collection of information which includes facts, figures and research and analyzing this information to obtain a detailed report. The main aim is to enhance the performance of an organization by thorough and optimum utilization of information, knowledge and data. A strategically developed plan indicates the expectations for the organization, how to transform policies into actions and development of ideas. This plan relies on effective collection of data and its analysis. The authenticity of this data collection affects how various resources are allocated to different processes of an organization. Effective measurements can be taken to reduce the bad quality and boost the functions and processes based on assessment of quality of data and information.

### E. *Process Management*[7]

The main objective behind process management is process aggregation and continuous improvement. In traditional management, the method of doing business is dividing business functions where in each department has its own function, goals and mission. Guided by the objective of individual department, the departments compete with each other resulting in an ineffective functioning of the enterprise. This may lead to bad quality of the product and the departments tend to forget the ultimate aim of the organization. The organization should be process oriented which means the enterprise should be seen as a collection of interconnected processes. These processes are associated with the mission and vision of the organization. This helps in cross functional teamwork and enhanced quality of products and services. By elevating the efficiency of the processes, the cost reduces. Enterprises should bolster their collaboration with suppliers to improve their processes; suppliers should deliver quality product to the enterprises.

### F. *Plan*[7]

A plan is an essential part in determining the future developments and expectations of an organization. A strategically implemented plan can encourage improved performance. Employers should consider the needs and expectation of customers, suppliers and shareholders and should make ensure the employees are aligned with the mission and vision of the organization and clear with the policies laid by senior management. Vision is the overall aim what an organization wants to achieve in a given time span. Mission are the small initiatives that support each other to achieve vision. Objectives quantitatively defines what a successful mission is and what to expect from a mission. Objectives combined together help to achieve plan.

## IV. PRINCIPLES OF TOTAL QUALITY MANAGEMENT

We recognize the fact that TQM is advancement of the conventional methods practiced to assess quality and is the outcome of a few set of ideas which are as follows:

### 1) *Quality Oriented Management*

The aim and perspective of the project have to be such that it balances the want of both business enterprise as well as the customers. Management has an important role in encouraging and push the whole group of workers. It must act as a function model in moral behavior, conversation and in education. They should act as a positive driving force in encouraging workers to take part in all tasks. In particular, the significance of these methods for educational corporations could be proven. With the establishments and within the political economies a critical exchange has taken place, which has been highlighted since a long time and the new corporation of labor and organizations, the commercial and technological progress.

### 2) *Focus on Customer*

A customer can be recalled as the maximum vital asset of a company whenever a customer buys a product and it turns out to be effective and efficient and provides good results then it will eventually make the customer happy and so the purchase will improve eventually. Hence there is a need to outline the demands, techniques and feature with the client factor of view. The profit directly depends on the customer. The more satisfied he is, the greater the organization can earn. Hence the needs of customer should be kept at the apex.

### 3) *Involving the entire work force*

The group of workers must be recollected as the inner purchasers and should be satisfied with their primary needs and demands which incorporates: protection, task security, communicating facilities. A sated worker will give his best to improve the quality of the software and

for the achievement of maximum profits of the business enterprise. A satisfied worker is the biggest asset to the company. He will work hard in every other manner to achieve the required goals. The work force should therefore be treated with respect and dignity. The worker empowerment definitely is the character obligation for decision making on business enterprise. The most important requirement for empowerment is the mutual trust between the employee and the organization.

#### 4) Continuous Improvement

The meaning of continuous improvement is leading to perfection in all the functions of the company and mannerisms. The approaches via which it can be enhanced are as follows: Discontentment with modern stage of performance, disposing of waste whilst it takes place through rework, continuous reevaluation of the previous works, keeping yourself updated with the changes in technologies and adapting them if any. Scrutinize a difficult or complex task and break it down into several chunks or subtasks. Now work on these tasks separately and independently and hence find out the bugs and correct them respectively.

#### 5) Supplier Partnership

The supplier acts as a crucial member in terms of quality measurement. The relationship between the organization and a supplier is important to assess whether the quality of the software is good or not. The supplier is required to supply a quality product. He should not compromise when it comes to quality. He should understand the risks associated with the product. It is also necessary for the organization to have trust on the supplier. The supplier should be treated with respect and dignity. When the contract is signed between both the parties, it should be in terms of quality, quantity and the cost of the product.

#### 6) Measuring Performance

The degree of achievement of goals is measured by the performance of the software. It is necessary to describe the position of the software in terms of its effectiveness and efficiency. It is required that it works appropriately whenever it is in use and produces optimum results. In order to achieve this, compare the goal with what has been achieved to see where the software lies. Determine what needs to be done with regard to enhancing the quality of the software. Therefore, evaluate all the factors required to assess the quality and performance.

## V. CONCLUSION

The utilization of TQM was widely mentioned; however, the demanding situations of execution have gained little awareness. A nice ideology is needed for the effective execution of an excellent challenge. This

ideology has to ease a long-term life-style transformation for production corporations. The guarantee of pinnacle management is vital. Widespread coming in of sources, proper training, group of workers participation and successful computation strategies are a few of the important things acting as factors of achievement. An efficient TQM application is specific, and it needs to encourage middle level management on long-term procedures in preference to quick-term goals.

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