A Study on the Feasibility of TQM Approach

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Abstract: Quality is a very misunderstood concept. To many concept quality of product means that there must be more inspections. A research for continuous improvement Shows quality management. Companies in india are not fully aware about the impacts and value of Total Quality Management (TQM) implementation. It encourages Researchers to address many topics related to Total Quality management and Continuous improvements. Each has his own approach. Each reveals findings and results.
Total Quality Management is not just an admirable phenomenon but it is any client's right and can be done through contribution of the staff and the managers as well as the client's of an organization. The purpose of the present study is to investigate the feasibility of TQM model. This paper further proposes and aims at providing a tool, a procedural framework, to enhance TQM in various companies operating in India via the development of appropriate TQM model which will ensure organizational sustainable competitive advantage. Proposed research direction and conclusion are discussed in conclusion of this research.This paper is a comparative analysis of some of the researcher's approaches concerning Total quality Management Applications, Models, principles and aims.

Keywords: Total Quality Management (TQM), Teamwork (TW), Approach, Awareness, study of TQM software.

Introduction

Total quality development is a philosophy based on a motivating vision. For example Disney has used the vision " The happiest place on the earth ".to is motivating employees to new heights of customer satisfaction. Researchers in the field of Total quality development are usually seeking to find models and theories for continuous improvement.
Here is an analysis some work produced in this field, to prove that, all targets and aims are achieved by relying on the same base and principles. Terms may differ from researcher to another, but the result is produced from the same ground. TQM is mainly concerned with continuous improvement in all work, from high level strategic planning and decision-making, to detailed execution of work elements on the shop floor.
It stems from the belief that mistakes can be avoided and defects can be prevented. It leads to continuously improving results, in all aspects of work, as a result of continuously improving capabilities, people, processes, technology and machine capabilities.
The role of the managers in quality is so essential. They should be the first ones who try to improve quality, recognizing both the usual and special causes and distinguishing them from each other. The quality management involves 8 principles which the executive manager of any organization can use to direct his organization in order to improve the performances. The principles are as follows: focusing on clients, leadership in management, workers' contribution, procedural approaches, systematic approach to management, continuous improvement, decision making based on facts and beneficial and mutual relationship to the providers
Continuous improvement must deal not only with improving results, but more importantly with improving capabilities to produce better results in the future. The five major areas of focus for capability improvement are demand generation, supply generation, technology, operations and people capability.
A central principle of TQM is that mistakes may be made by people, but most of them are caused, or at least permitted, by faulty systems and processes. This means that the root cause of such mistakes can be identified and eliminated, and repetition can be prevented by changing the process.

There are three major mechanisms of prevention:

1. Preventing mistakes (defects) from occurring (mistake-proofing or poka-yoke).
2. Where mistakes can't be absolutely prevented, detecting them early to prevent them being passed down the value-added chain (inspection at source or by the next operation).
3. Where mistakes recur, stopping production until the process can be corrected, to prevent the production of more defects. (stop in time).

Toal quality management future scope

Total quality management shows a continue development process ,it would not stop at any stage .in mechanical purpose as well in many management areas .following future scope in TQM ,

- Employee involvement reduces labor/management friction by encouraging more effective communication and cooperation.
- Employees have an increased commitment to unit goals because they are involved.
- Percent of certified suppliers
- Percent reduction in supplier base
- Percent reduction in corrective action cycle time
- What we will see in future, in terms of managing a supply chain, is going to be very different from what we are accustomed to. Some entities will disappear from the customer's sight but eventually be managed behind the screen. Managing quality in such systems and such an environment is likely to be quite challenging and the TQM approach has to be applied keeping in mind the new way of doing business.

The manufacturing sector is already undergoing changes with respect to the way operations are being carried out due to the impact of the electronic and software revolution. This will mean more on-line transactions and, hence, increase the interaction between man and machine. Greater integration with regard to all the functions is likely to take place and, hence, functions operating independently could become obsolete. In such a scenario, the complexity of the business operation will increase and demand a very high level of discipline, commitment and quality from all sources. The challenge will be to make products faster through a reliable system. The quality of the system will have to be high because a failure at any stage of the operation is likely to cripple the whole system.

Top management shall urge the quality department staff to immediately start with (TQM) awareness training courses to all employees in industry.

Implementing Total Quality Management Concepts

Since World War 11, the Japanese have been very successful using the American ideas for total quality improvement they learned from Deming and Juan. In the late 1970s Americans became interested in the success of Japanese firms and discovered that their management processes were the cornerstone of that success. Some American companies adopted TQM and applied it successfully, notably Ford Motor Company, Hewlett Packard, Campbell Soup Company, and the Paul Revere Insurance Company. Others were less successful, largely it seems, because they were unable to accomplish the cultural and organizational changes required to implement TQM principles.

The TQM implementation process begins with senior management and, most important, the CEO’s commitment. The importance of the senior management role cannot be overstated. Leadership is essential during every phase of the implementation process and particularly at the start. In fact, indifference and lack of involvement by senior management are frequently cited as the principal reasons for the failure of quality improvement efforts. Delegation and rhetoric are insufficient involvement is required.

Senior management needs to be educated in the TQM concepts. In addition to formal education, managers should visit successful TQM organizations, read selected articles and books, and attend seminars and conferences. The next step is for senior management to develop an implementation plan.

Timing of the implementation process can be very important. Is the organization ready to embark on the total quality journey? There may be some foreseeable problems, such as a reorganization, change in senior management personnel, interpersonal conflicts, a current crisis, or a time consuming activity. These problems may postpone implementation to a more favorable time. In fact, the purpose of TQM is optimizing human powers and improving the quality of patient care through establishing the system in the wards. TQM is not regarded as the final process of improvement, but everyone should try to achieve it and view improvement as a continuous process.

Despite the undeniable advantages of TQM for an organization, there is no consensus about its framework, but there is a general consensus about the need for a systematic method or framework in order to make TQM feasible.

The next step is the formation of the quality council initiation of these duties is a substantial part of the implementation of TOM. The development of core values, a vision statement, a mission statement, and a quality policy statement, with input from all personnel, should be completed first.

The active involvement of middle managers and first line supervisors is essential to the success of the TQM effort. They are accountable for achieving many of the organization’s performance goals and objectives, and they form enduring links in the communication chain from senior management to the front line workers. Without middle management’s early and active support, the TQM effort could fail. Senior management needs to ensure that managers at all levels have an opportunity, as soon as possible, to develop ownership in the TQM effort

and a chance to acquire the insight and skills necessary to become leaders. One way to accomplish this concept is to have a retreat. The retreat will focus on TQM training, leadership skills, and active involvement in the development of the organization's statements.

If there is a union, there should be early discussions with the representatives on TQM. Managers should involve union leaders by shelling with them implementation plans for TQM. As the quality effort progresses, managers and union leaders should work together on quality improvement activities.

At this stage of the implementation process, it is important to communicate TQM to the entire organization. Communication is important throughout the implementation stage. Communication is necessary to create TQM awareness interest, desire, and action. Everyone needs to be trained in quality awareness and problem solving. This training is conducted when the employee is placed on a project team or the work group is ready for the training.

Customer, employee, and supplier surveys must be conducted to benchmark the attitudes of these three stakeholders. Information from these surveys provides ideas for quality improvement projects. The quality council determines the quality improvement projects. In addition the council establishes the project teams and work groups and monitors their progress. The organization has to be patient and not rush the teams for solutions that don't eliminate the root causes. There is often a tendency to rush the implementation process. TECSTAR, a small business, was able to achieve savings of more than $3 million the first year of its TQM program. On the other hand, Karlee, a Malcolm Baldrige.

Total quality management software

Software development and usage will demand a big chunk of the critical resources needed to run an industry or a company. Once developed, the software itself will become a important resource. This is going to be a very broad space area for TQM application as more and more features have to be built into every piece of software to make it user friendly, reliable and to be able to come back to the normal mode in case of failure.

In today's market, the need to maintain a high level of quality is paramount to success. Quality management software soluions provide a holistic and scalable solution for automating processes, inegrating business system, and fostering collaboration and continuous improvement.

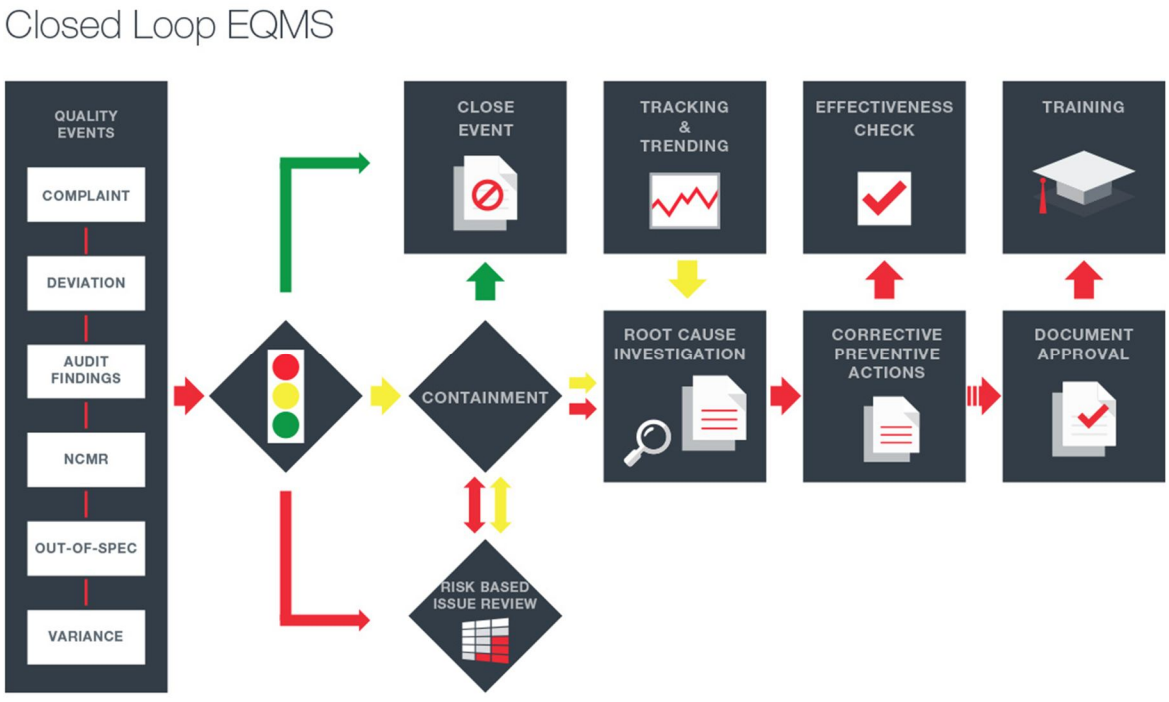

Fig 1: TQM Software Model

Total Quality Management (TQM) is a widely used philosophy and business approach that requires all departments in an organization to participate in continuous quality improvement efforts.

A TQM workplace values high performance and avoids, or at least minimizes, waste. Most companies, especially manufacturers in regulated environments, use TQM software (or TQM system) to help them instill total quality management procedures in all aspects of their operations.

TQM software that exists in the market today is designed based on total quality management principles that can be found in quality standards and regulations.

Descriptive findings

The area of activity of the managers was as follows. From health field 42 (71.4%) and 16 (28.6%) from treatment field. Concerning education, 29 (50%) had B.S., 4 (6.9%) M.S. and 25 (43.1%) PhD. The youngest was 30 years old and the oldest 49 years.

Table 1 . Frequency distribution of awareness level, mangers' attitude towards TQM and feasibility of TQM, considering area of activity, age, education of the mangers of the health field of Yazd Medical Sciences University

1. Level of awareness		Good awareness		Average awareness		Test	P-value
Variable		N	%	N	%		
Area of activity	Health	30	71.4	12	28.6	Fisher careful test	0.343
	Treatment	13	81.3	3	18.8		
Age	Below 40	14	66.7	7	3	Chi-square test	0.328
	Above 41	29	78.4	8	21.6		
Level of education	B.S.	22	75.9	7	24.1	Chi-square test	0.764
	M.S. and PhD	21	72.4	8	27.6		
2. Level of attitude		Good attitude		Average attitude		Test	P-value
Variable		N	%	N	%		
Area of activity	Health	35	83.3	7	16.7	Fisher careful test	0.523
	Treatment	14	87.5	2	12.5		
Age	Below 40	18	85.7	3	14.3	Fisher careful test	0.581
	Above 41	31	83.8	6	16.2		
Level of education	B.S.	24	82.8	5	17.2	Fisher careful test	0.500
	M.S. and PhD	25	86.2	4	13.8		
3. Level of feasibility		Feasible		Infeasible		Test	P-value
variable		N	%	N	%		
Area of activity	Health	31	73.8	11	26.2	Fisher careful test	0.089
	Treatment	15	93.8	1	6.3		
Age	Below 40	16	76.2	5	23.8	Fisher careful test	0.451
	Above 41	30	81.1	7	18.9		
Level of education	B.S.	23	79.3	6	20.7	Chi-square test	1
	M.S. and PhD	23	79.3	6	20.7		

Custmer Focus

This is the most important concept of the TQM Philosophy . Build upon the understanding that quality value of a product is reduced if it does not meet the custmers needs, the custmer focus concept says that the client's want and/or neeeds must be met or exceeded. But first, a company must first determine what those wants and needs are. To do this, they gather information through market studies, research groups, and client meeting.

Benefits of achieving this concept include:

- Increased revenue
- Increased effectiveness
- Improved customer loyalty

Conclusion

In conclusion, tqm can be a powerful tool for using employee creativity, reducing costs, and improving services to customer and the public. However, the concept of TQM was weak and the quality of many products was still poor in India, and the implementation of TQM is not always a worthwhile investment. It is not necessary for every business to use tqm, especially in Indian business environment.

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