

EVALUATING THE SUCCESS OF THE COMPANY DESIGNING THE TQM SYSTEM

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Abstract

This paper proposes a methodology for evaluating the success of the designed and implemented system for TQM (audit) and its application in some Macedonian companies.

Successful application of this methodology can only be achieved if business processes are designed and implemented with optimal utilization of resources, in order to work out the best from the first time, no defects, no loss of time and to the satisfaction of all users. This methodology has found a practical application within some of the Macedonian companies. The results displayed universal possibility of application and visible effects.

Keywords: methodology, evaluation, TQM strategy, quality system.

TQM and the outcomes assessment movement

At the core of the "house of quality" in a company lies measuring of the collected data for business processes, in order to understand, control, as well as to gather important information regarding products and services, and to improve their quality and optimization business processes (Chepujnoska, 2009).

There are several reasons for introducing measurements (Dumke et al. 2006):

- understanding of process, products, resources. It can serve as a basis for future comparison;

- control of processes, products, resources, including corrective and preventive measures. So, the analysis of the measurements can identify opportunities for improvement and defect processes, products, resources;
- improve processes and products. Measurements can be used to predict the future behavior of processes, products.

The quality assurance system is of fundamental significance, but to evaluate what is to be measured you need to make a techno - economic analysis based on comparing the cost of detecting defects and costs caused by these defects.

To make a proper choice of measurement properties, it is necessary that their performance in terms of accuracy, speed and scope of the examination, the type and number of information, is known.

Both the intensity and scope of measurement and control of the properties depend on their importance to the quality and degree of accuracy. If the property is of special importance for the quality, then 100% control is needed. Place of measurement and testing should be determined by the control process. Some measurements are to be made on line (online control), and others in the lab

(offline control). The person who performs the measurement should be trained for that kind of measurement, to know the character of that property measured (Mitreva, 2007).

Measurements in business metrology is done through examination questionnaires that measure satisfaction / dissatisfaction of employees, customers and so on. Data collection for customer satisfaction for the quality of products / services should show what measures companies should take to improve their satisfaction. Sources of measurement can be objections, complaints, surveys, debates and so on (Mitreva, 2011).

One of the key criteria for the Malcolm Baldrige Award in the U.S. (McAdam et al. 2002) and the European Quality Award (EFQM, 2000), is the satisfaction of customers / users.

For the enterprise to respond correctly, it is important the objections or complaints of customers not to be interpreted incorrectly and monitoring of their satisfaction should be practiced continuously, thus creating a valuable resource for strategic business analysis and management.

Top management is most responsible in the "house of quality" and it "holds" the four pillars that are subsystems of the system of quality management (Mitreva, 2007). Designing a system for measuring business performance of a company and satisfaction of customers / users allows a systematic approach to the results or analysis and detection of critical areas, determination of losses, seeking for solutions to problems and their successful implementation. In order to close the circle PDCA (Plan - Do - Control - Act) it is necessary to check the results and implement corrective measures in order to achieve spiral, continuous improvement that will lead to new opportunities for improvement. The

improvement process is the process of solving problems (Mitreva, 2010).

The evaluation should be present at all stages of the implementation of the business processes and the final result to give feedback on how well is done and what has been done as planned. The results are a powerful tool to further extend the cycle, i.e. to achieve the commitment of employees and the top management to continuous improvement.

Daily practice of each employee should not only be the control operations, but employees must be trained to act proactively, rather than be occupied with detection, you get the power and responsibility to correct their mistakes and take out every problem about the quality that is discover.

In this paper a methodology for evaluating the success of the designed and implemented system for TQM (audit) is presented as part of the overall methodology for the design and implementation of TQM system in companies (Mitreva, 2010).

Monitoring covers all subsystems of the "house of quality" in a company, as well as the criteria of the European Foundation for Quality Management (EFQM, 1999) used to assess the progress of the company in achieving business excellence. Verification of the TQM system must be part of the daily care of strategic management. It should be a function of time taking corrective measures. The results should show what the company has achieved and opportunities show how these results are achieved.

Proposed methodology for evaluating the success of the designed and implemented TQM (AUDIT) system

Self-assessment as a basic approach in the application of integral methodology for the TQM system is of crucial importance for the proper application of the same. But without sincere commitment of top management to apply this universal integrated methodology, every other partial attempt is condemned to failure.

Self-assessment is accomplished through a multitude of documented procedures for

comparing the realized model with the planned one. Monitoring should not only be for the quality products / services, but also the adequacy of the TQM system in the implementation of the quality functions. The process of verification is done through the following activities fig.1 (Mitreva, 2010):

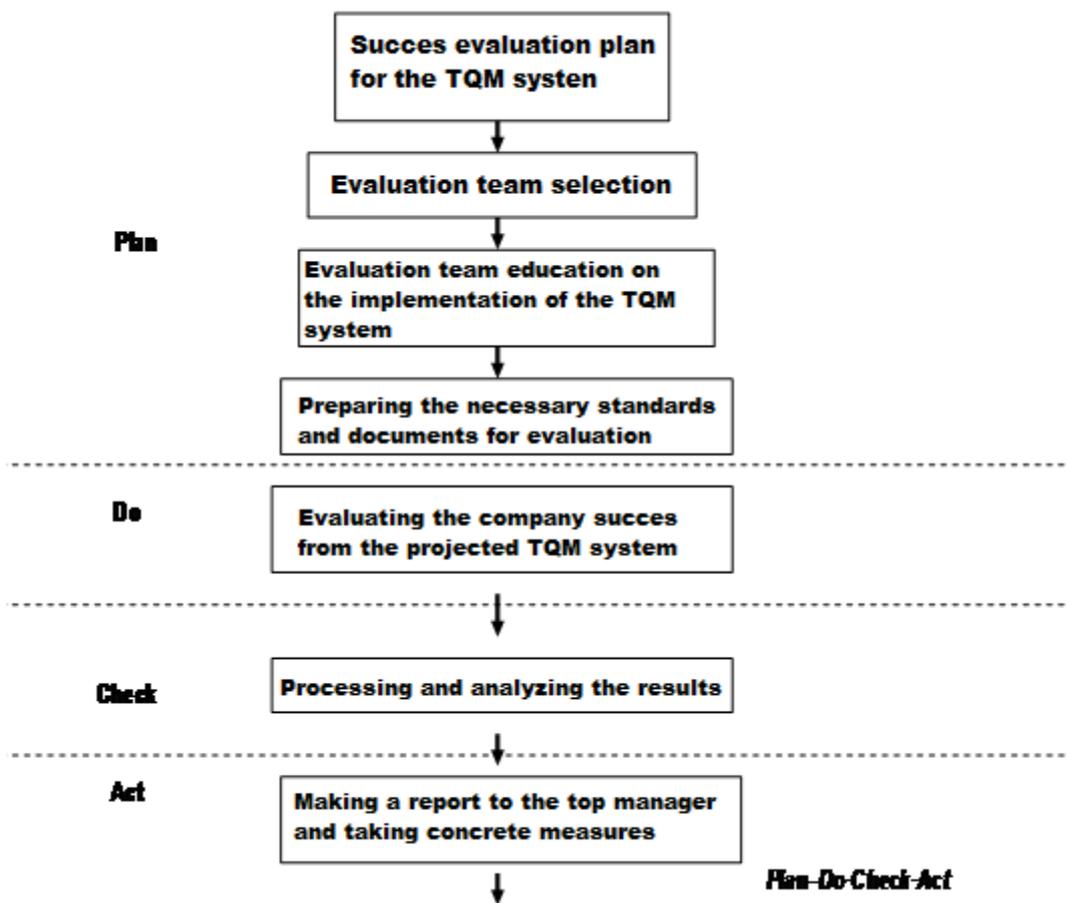


Fig.1: Success evaluation process

(Plan) Step 1: Plan for evaluating the success of the designed and implemented TQM system.

- The plan for evaluating the success of TQM projected system is made by the top management.

Step 2: Selection of evaluation team.

The evaluation team should consist of people who have the following characteristics:

- to understand the TQM philosophy;
- to communicate well with all levels in the company;
- have the power of observation;
- possess rational thought and fact-finding;
- be thorough in research and
- conduct impartial assessment.

The participation of experts in the evaluation process is necessary, especially in providing expert advice on how companies continually improve the existing model of TQM and create alternative programs for its application in practice.

Step 3: Education of evaluation team.

In case if there are no qualified people to evaluate, it is necessary to develop alternative training for application of integral methodology for designing and implementing TQM system as follows:

- course - training for self-evaluation, users of the integrated methodology will be provided with extensive theoretical and practical knowledge of its use in practice;
- Benchmarking workshops through examples of good practice, which presents best practices and

successful domestic firms compared with the practice of other successful companies that apply the TQM strategy.

Because it is an integrated methodology, it should have a strategic character in order to give the expected results.

Step 4: Preparation and study of the necessary standards and documents necessary for the assessment.

The team is necessary to make some preparations before the start of the evaluation, including:

- review of the quality policy, compared to the prepared questionnaire;
- learning about the operations of the company;
- choice of organizational units of the company to be reliable;
- preparation of questionnaires with different issues according to the request of the European quality award (EQA), because the checkup needs to determine:
 - how the behavioral measures taken by top management and other managers inspire, support and promote the culture of TQM;
 - how the company formulates, develops and reviews its quality policy and strategy and how it turns into plans and actions;
 - how the company provides employment potential;
 - how the company effectively and efficiently manages resources;
 - how the company identifies, manages and improves processes;
 - what the company undertakes in regard of meeting customer satisfaction;

- what the company undertakes in regard of employees' satisfaction;
 - what the company is doing to meet the needs and expectations of local, national and international community (voluntary and beyond legal obligations);
 - what the company is doing in terms of schedule to achieve the satisfaction of all those who have a financial interest in the organization;
- discussion of the assessment plan and obtain approval from the top management;
 - preparation of the plan review;
 - submission of the plan for evaluation of the company;
 - detailed introduction to the test plan.

(Do) Step 5: Evaluating the success of the company designing the TQM system.

Monitoring covers all subsystems of the house of quality in a company, as well as the criteria of the European Foundation for Quality Management (EFQM) used to evaluate the progress of companies in achieving business excellence. Verification of the TQM system must be part of the daily care of strategic management. It should be a function of timely taking corrective measures.

The evaluation concerns:

- analysis of the external environment (business trends, legislation, sales, competition, customer satisfaction / customer, satisfaction of providers, the impact on the company);
- analysis of internal environment (effectiveness, efficiency, structure and employee satisfaction, business

- results);
- analysis of the company in relation to the environment (Benchmarking).

The assessment is made by monitoring the records as:

- leaders publicly demonstrate personal responsibility towards the culture of TQM;
- leaders support improvement (with personal engagement), providing the necessary resources;
- leaders engage in relationships with customers, suppliers and other external organizations;
- leaders recognize and reward the efforts and results of staff.

Records are required on whether the policy and strategy are based on information that is:

- a) relevant and complete;
- b) developed;
- c) means of communication and application;
- d) regularly updated and improve them.

Records are required for the treatment of employees by:

- a) planning and development of employees as a business resource;
- b) supporting and developing the capabilities of employees;
- c) continuously examining their performance in meeting the objectives;
- d) as employees turned on the business processes, as they are authorized to perform organizational functions and how their results are recognized;

e) how the organization accomplishes effective dialogue with them;

f) how to take care of employees.

Records are required for manages the:

a) financial resources;

b) informational resources;

c) the relationship with suppliers and raw materials;

d) buildings, equipment and other property, ie with technology and intellectual property of the organization.

Records are required for the:

a) key processes to achieve success in the work;

b) systematic management processes;

c) as processes are improved using innovation and creativity;

d) such processes are changing and what are the effects of this change;

e) as reviewed and completed goals to improve the process.

Records are required for the satisfaction of customers / users:

a) post the purchase of products / services and the company's relationship to them;

b) additional measures for customer satisfaction.

Required records on employee satisfaction:

a) the opinion of the company's employees;

b) additional measures for employee satisfaction.

Required records to delight the community:

a) how society sees and appreciates the company;

b) additional measures impact the Company's undertaking.

Required records for business results:

a) measurements of financial performance of the company;

b) additional measurements of the performance of the company.

When checking every sector (service department) all the tools and documentation needed should be made available.

The check is done on all subsystems of the TQM system in all sectors using specific questionnaires depending on the subsystem.

(Check) Step 6: Processing and analysis of results.

In assessing the success of projected and implemented system statistical methods are used:

- assessment of the effects;
- preparation of the report;
- presentation to top management or the national committee for business excellence when the company would compete for the European Quality Award.

The results should show: what the company has achieved and opportunities show how these results are achieved.

The report should state:

- purpose of the assessment;
- summary of results;
- methods of performing the monitoring;

- detailed analysis of the results of monitoring and
- proposed corrective measures.

The fundamental concept of TQM system is to help companies build their own approach to achieving business excellence.

(Act) Step 7: Submitting assessment report to top management for taking corrective measures.

All comments should be made in writing to the top management for taking corrective measures.

Notes and draft corrective measures relating to:

- difficulties arising during the implementation of each of the subsystems of TQM;
- clear picture portion of the subsystem to be upgraded in the next attempt;
- is there interest among teams and employees to further enhance the TQM system;
- do team members know and are trained in the steps of the design methodology and implementation of each of the subsystems;
- rewards for success;
- have you identified and understood results (achievements) and you see the benefits of implementing TQM system;
- expansion of air for even greater success.

Methodology for evaluating the success of the designed and implemented system for TQM (audit) as part of the overall methodology for the design and implementation of TQM system has feedback as a result of the necessity of ongoing improvement of business processes (Mitreva, 2010).

This methodology found practical applications in some companies (Mitreva et al. 2008; Lazarevska, 2007). The need for design and implementation of SOP for all business processes in order to achieve defined quality and to protect the customers / users of defective products was emphasized.

The top management of a car reconstruction plant set out to perfect the system of quality management taking into consideration the environment by reducing waste, reducing pollution of air, water and soil, saving resources by monitoring the power consumption and material, and adapting to all national and local laws and normative acts regarding the environment (Mitreva et al. 2008).

This methodology is applied in the factory for production of confectionary products, which achieve defined quality, protect buyers / users of defective products, and thereby increase the competitiveness of the market, profitability, improve quality, and decreased the defects operating costs, increase customer satisfaction and employee participation in decision-making (Lazarevska, 2007). This points to the fact the universal application of this methodology in practice, regardless of which branch they belong to companies.

Conclusion

For this methodology to be effective application of information technology is a necessary. However, it should be noted that without education in these areas application of this methodology is impossible and therefore the following benefits of the quality system could not be assessed. The total quality management means greater participation of employees in identifying and resolving problems within the set of standards and the efforts made to continuously improve.

It should be emphasized that the benefits of the introduction of this model is not seen immediately, but in the long run. That should not be a reason for canceling the initial initiative, because quality is a long term process.

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