

A NEW GENERATION - QUALITY DESIGNER

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Now more than ever the quality management need some changes, not because of generation changes but because of the new provocation "green products".

The "green products" provocation needs changes to be implemented in each manufacturing technology and also in quality management. The organization must to be flexible to costumers needs and also to the new trends in industrial fields. This new generation for quality management change appear as a result of new eco-age , when in every second a new method, a new discover in researching work will bring more and new solutions to similar problem but in different places. The paper present the investigation results in a common manufacture organization who produce industrial products and also the solutions propose by author to improve the quality products and organization quality management.

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Introduction

Any system performance improvement processes in an enterprise, is effective when internal processes are stable and controlled.

For that reason companies wishing to become or stay competitive, they need competent persons in the planning and control processes but also identify specific methods for improving internal coordination changes.

The new generation of green products can be realize only with the implementation of the new methods of simulation and modeling products characteristics and shape from the first stage of product design, when the engineer-designer can anticipate the future damage and failures of the products in his life cycle curve.

The implementation of a maintenance service, represents an important function of the enterprise which leads not only the possibility of both foreseeing and anticipating the possible flows , but also the opportunity of planning the interventions which will permit us to avoid them, as well as to get certain cuts of the expenses under crisis circumstances of the firm.

Maintenance must also be the production partner. Maintenance role is often undermined and productive function is not recognized.

Now that the old term maintenance and repair is replaced with maintenance, serving as a higher level of fixed assets, which must aspire to any enterprise, optics has a new culture-oriented management and achieves maximum business efficiency.

Our maintenance costs are extremely complex, requiring a thorough knowledge of their workload.

Lowest costs are the prevention and remedying defects. Unlike them implement a corrective policy is very expensive. Many of the maintenance costs are not covered by the records of the company, they are difficult to identify and measure.

They are hidden costs and the expenses are situated in the hidden parts of iceberg product quality.

Economic and technical characteristics of equipment can match the availability, thus paying maintenance activities are carried out by the entire organization, this leads to undue expense, and paid the outstanding work and providing the necessary resources to conflict in their servicing.

A good manager wants to have accurate records and information on the state system which he leads, because efficiency resulting from the correctness of decisions.

Research and methods

The paper presents some solution for a traditional organization which have problems in adaptation and be flexible to the new trend in management and quality management.

The investigation identifies the quality problems in technological process and present some solutions.

Some companies have already made a beginning by introducing and certification systems quality management and the environment. Known as reference standards for these systems focus on identifying key processes and process leaders.

Following the consultancy services offered to implement management systems Quality environment and training to improve managerial skills revealed clear need to identify support for the reorganization of production and management processes, but nobody pay attention to the maintenance management

The progress of various categories of cost and efficiency indicators leads to the best solutions in solving everyday problems little things who can give the solution key for organization problems.

Available remember dashboard, develop a budget for maintenance activity, the monthly allocation for each machine or plant part.

Building maintenance budget can be achieved only by changing the traditional optical manager in terms of management effectiveness of each action is characterized not only technically but also economically.

Starting with the organization dates and elements we can present a new management concept of total productive maintenance, which together with other pillars of the company can realize a house of quality and a house for quality. For that reason the base of the quality house is TQM total quality management, the columns are:

- preventive maintenance,
- maintenance-productive;
- 5 S;
- auto maintenance,
- Continuous-improvement gives the answer to the link between quality and maintenance.

The roof of quality house is TQP, total preventive maintenance sustain by all five columns.

These keys TQM and TPQ together with production efficiency, configure up golden triangle quality, weakness of one full set of columns compromise the triangle and the quality house.

Total quality is the basis of total productive maintenance, we can define eight basic points of total productive maintenance system: abolition of losses, self-maintenance, maintain productive, technical training and operational, design and management, quality products, service-site performance, safety management, all these factors lead, in turn, the success of the company's productive activities.

Company's mission is to provide technical conditions for obtaining total quality through effective exploitation of the means of production.

The six major sources of losses that lead to support the implementation of such a system are:

a) Stop-time accidental: time to change, adjustment and adaptation of equipment, micro-machine stops, slow-functioning equipment,

B) Defect quality: start-faults.

It requires the resumption of Ishikawa diagram to outline the steps necessary to obtain a practical quality in manufacturing activity.

Applying Ishikawa's strategy may be removed where, considering the price as the main criterion, is made to purchase second-hand equipment, which in the short term, are advantageous due to lower investment costs, but inhibit the medium and long term competitiveness.

5S concept is good to comment, for any type of organization and to identify the sources of success:

-SEIRI -setting, elimination of unnecessary things,

-SEITON-order, methodical

-SEISSO - inspection control

-SEIKETSU-cleaning

-SHITHSUKE-discipline, moral education, and respect for others.

Initially, the 5S increase production and maintenance costs, but contribute substantially to strengthening labor motivation, employees and improve company's image in the eyes of providers and beneficiaries.

As adopted by all members of the company the 5 S are elements of culture and, while no longer necessary additional expenditure.

In the Romanian tradition, the technological process inside the organization was seen as a noisy place, filled with dirty equipment, served by workers in gowns, oil stains, leaving the assembly by visual measurement and hammer to corresponding technical documentation, recent years have brought changes, so the first steps were made.

In the process of implementing the 5 S, everything starts from the manager, from top to bottom, the holder of the established human intelligence and machines characterized by force and precision.

Man can improve its qualities and capabilities through training and practice, and companies can move pushing for continuous training of employees.

The key to success in implementing quality and its diagnosis is to make all the steps in six sigma programs, which is a wizard with no errors in the production of products, manufacturing tolerance errors 0.

Quality control movement has expanded the original named new quality control method, means providing a product that is better than the best, no better than most.

Also, starting from control, planning, implementation, quality must be closed circle, spread across the following segments of the new product: product research, production planning and production.

Six-sigma is home-sigma statistical term used to measure the standard deviation of average distance, is a program of excellence, as allocated no more than four errors in one million operations.

Target level of damage is the same for both producers and service functions.

Six Sigma is a rigorous standard, expensive, because we know that quality brings investment, and vice versa, because so many operations to monitor costs, but at the same time and correct them immediately.

The companies have resorted to this method have found that improved quality means fewer defects, eliminate stagnation, greater customer satisfaction.

Improving quality is more important than the cost of implementing and maintaining six sigma programs.

Organization of work and the possibility of rescue efforts have led to a return to investment is the best solution compared to years to find solutions to save the company to use the process correctly.

The method is based more heavily on quality control, to have a competitive advantage, to produce error-free, to make good things come alive on quality.

We could allow employees mistakes?

A single mistake could not slow down too much company and management style. If in the course of occasional errors, they do not affect too much production, but considering the many errors could be made in the course of the entire company, the economic impact on productivity, customer satisfaction and profitability is dramatic.

This method of management approaches organization to find and identify what he know or should not, what he need to know and to act to reduce errors and their adjustment, which for organization means time, money, opportunities and consumers.

The method applies the following steps:

a) measurement, identification of Y and X options: plane measurement, accredited-measurement system, measurement process;

b) consumer-finding design: high-precision processes, development projects;

c) implementation-generating and evaluating alternatives: constructive remedies, control design.

The best method, six sigma projects is the beginning, not inside the company as a business, but outside them, focusing on the answer to:

How can we make our products more competitive on the market?

Six Sigma is the key to open new levels of quality, performance, provision of services and achievement of profit. The manager has in his hand the destiny of the company, everything depends. The method is today the ideal solution for busy managers, the first steps are choosing the project team, systematic education of employees is known on various levels.

Who are the major players in the program: Masters Black Belt, Green Belt, Orange Belt, Yellow Belt, this structure allows visualization of transfer tasks in the organization levels, each performing specific tasks under the program:

- Enforceable are those that deal with method and explain its implementation within the organization;
- Champions will try to present and explain what was used in this program and remove any barrier;
- Master Black Belt is actually the one who will train staff, will manage and oversee the production process of the activity;
- Black Belt, who would work effectively only nonstop for the project;
- Green Belt, are those who will assist those working in the Department of Black Belt. It is vital that everyone knows exactly what to do and its role in achieving quality. Of course nobody wants that after investment in Six Sigma and after time spent coaching and training people, project selection favorable for the production company to lead, eventually, lower profits and achieve a satisfactory quality.

The method is a way of life for business, they continue throughout the implementation period is initiated at the same time use other production projects, by finding new methods for obtaining profit increase.

Implementation of quality takes time requires achieving infrastructure in first year, followed by total quality house building foundation with the following magical elements:

- defining objectives, gaps and desires of consumers;
- current performance measurement process;
- analyzing and determining the causes that led to defects;
- implementing a new project to eliminate the defects;
- monitoring the performance, following the implementation of the new project.

Six Sigma, for manager is actually the solution to any problem if it satisfies the following:

- learn the basics of the method it will use;
- select the best specialists and projects;
- makes a team work;
- apply appropriate methodology with tools.

In other words, if:

- define the target group for six sigma project, ie internal and external customers;
- measure and analyze the features of the process;
- implement, monitor and maintain phases.

Through them we discover, in fact, the new method DMAIC-define, measure, analysis, implementation, monitoring.

Like any start virtually any method will be in Six Sigma, should start going through all the steps needed to know all the internal and external factors.

Obviously, they could not obtain satisfactory results if we go directly to the fourth or fifth step.

We can measure if we set the unit and we do not define the problem we face. Below is the logical scheme of the five steps of DMAIC methodology:

- Definition of the problem- identify the major problems of process, selecting a project to combat one or more of the problems, vital factors determining required measurement, analysis, implementation and control.
- Measure problem- selecting critical characteristics of the product or process quality, standard - definition performance variables Y, a system of measurement for Y, establish a process able to create the size of Y;

-Problem-analysis- defines Y one implementation targets, identifying sources for Y, finding potential causes that could affect the size of Y and identified several vital Xi;
-Implementation-issue-discovering vital link between the variables Xi, setting acceptable tolerances for Xi, establish a measurement system for Xi, control problem, measurement accuracy determination for Xi, control system implementation.

Conclusion

Studies shows that in organization works long day, workers are perceived a rhythm witch is very intense, but at the same time there is a low productivity, competitiveness and restricted items. It is evident that the development needs economic performance is about upgrading the skills and human resources areas such as labor organization, design - sizing - measure - control -improvement - from business process management, quality management, change management, risk management, project management and not at last maintenance management with direct consequences on labor productivity and competitiveness performance.

Some companies have already made a beginning by introducing and improving business through quality products, services macroeconomic market at an affordable price is what is sought using the method. Tools and techniques applied so far known to improve quality are of the past, no longer satisfy consumers the economy today, as a result of changes in society.

Manager is focusing and promote a new management on:

- channeling efforts of all employees in achieving product quality;
- to identify and isolate the factors affecting product quality, company image;
- to encourage the entire organization personal in business activity;

In conclusion this method is a guide to understanding and management of each sector of business on the road to quality.

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