

TRIZ, TQM AND TCIM

A TRIZ ORIENTED CREATOLOGICAL APPROACH TO THE ORGANIZATION

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Abstract

In this article the author describes the integration of TRIZ and TQM (Total Quality Management) that developed a powerful TRIZ oriented Creatological approach to the organization named Total Creativity and Innovation Management (TCIM). This approach focus on Total Inventive Problem Solving for all organizational Problems , Ideality Increasing and Innovation . TCIM involved TCIS (Total Creativity and Innovation System) that included Innovative principles and methodologies . TCIM puts specific requirements in the organization that when are met, a great transfer will take place to innovative organization .

Key Words : TRIZ, Quality, Organizational Innovation, Creatology , TQM, TCIM

1. Introduction

Quality, Creativity and Innovation are three important issues at all organizations. Solving Quality Problems facing 21 century organizations demands Creativity and Innovation (21 Century is the age of Creativity and Innovation). In belief the author, Qualitism, Creativism, Innovationism and Entrepreneurism as Creative Paradigms are increasingly important and play a strategic role in organization and business .

Quality, Creativity and Innovation have become strategic issues as organizations strive to remain competitive. They are related to all Processive and Productive aspects of organizations, especially industrial Organizations. Quality development and Creativity and Innovation development are very powerful helps to organizations for achieved their goals.

TRIZ, The Theory of Inventive Problem Solving, as a Creatological approach is a powerful methodology for inventive problem solving, producing systematic innovation and improving quality.

The application of TRIZ and TQM (Total Quality Management) promises enormous benefits to organization.

This paper describe a Creatological approach to the organization that is based on the integration of TRIZ oriented Creatology and TQM. The approach is named TCIM (Total Creativity and Innovation Management).

2. Quality

There are a number of definitions of quality. for example Philip Corsby said that quality is conformance to requirements(Schultz,1994:94) and Joseph M.Juran said that quality is fitness for use(Schultz,1994:52).

Quality is the way Organizations ensure that they know their customers, their need and expectations and how organizations are going to meet these needs exceed their expectations . Quality also helps organizations continuously improve their products and services and to continuously reduce their costs of providing them and ofcourse creation new products and services.

3.TQM

TQM(Total Quality Management) is a depth approach to the organization and a powerful methodology for improvement of all aspects of organization .

Total quality management is based on the general principles of continuous improvement and the involvement of all employees. The involvement of employees occurs through a system of quality facilitators who work with crossfunctional teams to enhance work processes in order to improve services and products to both the organizations internal and external customers.

Top management's leadership and encouragement of the effort, based on an awareness of the benefit of TQM, is crucial.

Communication must be open vertically between management and staff, and horizontally between the different functions in an organization. The most quality writers and practitioners report that TQM to focus on the four principles:

- 1- Customer focus
- 2- Process Orientation
- 3- Continuous Improvement
- 4- People Empoverment

Also the most commonly used TQM Practices are :

- 1- Problem Solving
- 2- Training
- 3- Top-down implementation
- 4- Development of relations with suppliers
- 5- Collecting Customer information

The methods of Total Quality System(TQC) such as quality engineering techniques, QCC, QFD and CRM are related to their Principles and Practices.

4.Quality Improvement

Continuous Quality Improvement is a very important issue in TQM. Quality Improvement is continuously Solving of quality problems. Quality problems are distances between two levels of quality. This problems usually are non-routine or inventive problems. Need to Solving quality problems demands Inventive Problem Solving.

The essence of TQM is solving of quality problems. Thus influenced by TQM, Organizations strive to enhance their flexibility and ability to increase their Problem Solving Capacities.

5.Creatology

In belief the author, Creatology is science of Creativity and Innovation. In the other word, Creatology is Scientific study of Creativity and Innovation in all fields from different aspects. TRIZ (Theory of Inventive Problem Solving) is an important source for Creatology. The focus of Creatology is to the both technical and non-technical applications of TRIZ. Thus TRIZ oriented Creatology is a very important issue of Creatology.

TRIZ oriented Creatological approach is a powerful and beneficial approach to the organization .

6.TRIZ,TQM and TCIM

The author believe that integrating TRIZ and TQM can developed as a new approach named Total Creativity and Innovation Management : TCIM .

TCIM is a Creatological approach to organization. TCIM is based on Creative or Inventive Solving of problems of organization in all aspects such as Quality problems , Productivity problems, Production problems, Marketing problems, Human resources problems and so on . This problems are inventive problems and total inventive problem solving is necessary .

Thus organization must improved and developed in the Creative or Inventive ways , and therefore Creativity, Innovation and inventive problem solving have a fundamental role playing for achieving this goals .

TCIM focus on Creative development of organization. In the view point of TCIM organizations must to open up to new ideas and inventive solutions and finding Creative improved ways of doing things at work and the implementation of those at work and in practice .

Inventive problem Solving through TRIZ methodology to enhance customer need analysis and help to distinguish their needs .

Briefly in belief the author TCIM to focus on the five principles :

- 1- Creative Customer Focus
- 2- Creative Problem and Process Orientation
- 3- Creative Improvement and Ideality Increasing
- 4- Invention and Innovation
- 5- Creative People Empoverment

Also the most Commonly used TCIM Practices are :

- 1- Creative Strategies
- 2- Creative Structure
- 3- Inventive Problem Solving
- 4- Creative Training(CHRD: Creative Human Resources Development)
- 5- Creative Relationships

TCIM involved Total Creativity and Innovation System (TCIS) . TCIS Included IQE (Inventive Quality Engineering), IPSG(QCC+TRIZ: Inventive Problem Solving Groups and IG : Invention Groups) , QFD (Quality Function Deployment) + TRIZ, CRM (Customer Relationship Management) + TRIZ , 6 Sigma + TRIZ , SP(Strategic Planning) + TRIZ , FMEA (Failure Mode & Effect Analysis) + TRIZ (AFD: Anticipatory Failure Determination & FPA :

Failure Prevention Analysis), Productivity + TRIZ (Ideality) ,IT(Information Technology) + TRIZ , SS(Suggestion System) + TRIZ, R&D+TRIZ , VE (Value Engineering) + TRIZ , (IR & I : Inventive Research & Innovation) and etc .

Therefore , TCIS methods are results of Creative combination of TQS methods and TRIZ Principles and methodologies (such as 40 Inventive Problem Solving for the all problems of the organization .

7.Conclusions

An important issue of the Creatology of organization is TRIZ oriented Creatology of organization (TOCO) . TOCO is based on creative integration of TRIZ principles and methodologies with the main managerial approaches to the organization . such as TQM (Total Quality Management) . Creative integration of TRIZ and TQM to develop a powerful Creatological approach to the organization named TCIM (Total Creativity and Innovation Management) that is very beneficial and broadly applicable .

In whole, TCIM is a new Creative Paradigm to the quality and organization in the age of creativity and innovation . with TCIM, organizations will then be able to fully exploit an essential ingredient for the capacity to innovate . Creative and satisfactory integration of TRIZ Principles and methodologies with TQM methods produced a vigorous synergy that is very beneficial and promising .

In contrast with TQM, TCIM principles and methods emphasis an Inventive Quality Problem Solving , Ideality Increasing and Innovation . TCIM try to increase the Ideality of an organization (Continuous Ideality Increasing) by continuous increasing the sum of useful functions and continuous decreasing the sum of the harmful functions (payment factors). TCIM is an essential ingredient for Innovative Customer Satisfaction .

Today successful and excellent organizations have Innovative Customer Satisfaction , Inventive Problem Solving and Innovation more than and at a rate faster than that of their competitors and TCIM is an effective way to this aim .

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