TOTAL QUALITY MANAGEMENT PRINCIPLES

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Abstract: -

Background: TQM is a contemporary quality management approach that represents a rational method for quality control within companies in different, well derived from ISO 9001
Goal: The purpose of this study is to detail the principles of TQM as well as their definitions and analysis
Method: This study is based on analysis of the articles published recently until 2022 following a structured methodology
Results : Thus we could identify the principles of TQM in detail
Conclusion : Through this study, we were able to present the TQM in terms of principles which facilitates the good understanding of this quality approach and its implementat

Keywords - Principes de la TQM, Leadership, Top management, continual improvement

I. INTRODUCTION

The TQM is a rational quality management approach, whose main objective is the involvement of all staff in this perspective chaperoned by the top management, thus aiming at the perfection of the company's performance

The TQM involves all stakeholders for customer satisfaction
Several quality researchers, such as Deming, Crosby and Juran, affirm the existence of a positive relationship between the implementation of total quality and the performance of companies.

This approach was implemented around the 1970s in various countries

Citing as an example the United States and Europe attesting to the fact that it is a perfect approach to the mastery of the quality management system [1].

According to Hung , 2011, the objective of TQM is to embody an organizational climate of trust and sharing between human resource management and customer management. The proper understanding of the relationship between total quality management, and individuals and organizational control leads to good managerial practice for the successful implementation of total quality management (Haffar 2017).[2]

TQM is presented as a quality approach aiming at a competitiveness of the company from the improvement of the performance, it also includes the whole of techniques and procedures used to reduce or eliminate the variations of a production process or a service delivery system, thus improving the quality of the product.
Total Quality Management (TQM) is considered an effective management philosophy, aiming at excellence in terms of production or service quality. Although the concept of total quality management was advocated by Dr. W. Edwards Deming in the late 1950s in the United States, Japan was the first country to adopt this concept to revive its economy after World War II. Japan marked this success by implementing TQM in various areas. Initially TQM was advocated for industry; later it was spread in other service institutions including banks, insurance, non-profit organizations, health care, etc. [14]

II. TQM PRINCIPLES

Sharma Pankaj, Jain Naman and PruthiKunal in 2013, state that TQM is based on seven principles following principles: [3]

1. Top Management: The main driving force for TQM is the top level management and, therefore, it is their responsibility to create an environment for the implementation of of TQM;
2. Training requirement: Before implementation, all employees should be trained properly and after that it should be properly and after that there should be regular training and certification processes. certification processes.
3. Customer orientation: Appropriate surveys and feedback forums to collect customer satisfaction and satisfaction and feedback should be conducted.
4. Employee Involvement: Such an environment should be created so that employees are actively actively, and all those who are proactive in their work should be rewarded properly.
5. Techniques and tools: The appropriate tools and techniques should be used.
6. Corporate Culture: The culture must be consistent with the comfort of the employee to achieve higher levels of higher levels of quality.
7. Continuous Improvement Improvements should be made on a continuous basis On the other

hand, the principles of TQM according to Subratatalapatra, kutubUddin and HabiburRahman [10] are quoted

Continual Improvement :
Afin d'aboutir à l'excellence organisationnelle, l'amélioration continue est primordial en terme de la qualité ,santé et sécurité au travail, responsabilité environnementale et sociale de l'organisation [4] . Ce qui impliquent l'ensemble du personnel dans la quête de la bonne exécution des procédure. Cette culture étant importante pour la mise en place de la TQM dans l'organisation

Employee Participations :
La participation des employés est un principe majeur de la TQM .Cette participation exige un environnement de travail favorable et encourageant [5] . L'esprit d'équipe des employés est ainsi favorisé et renforcé dépendant de certaines bonnes pratiques citant à titre d'exemple : Le paiement régulier, de la sécurité de l'emploi, du recrutement formel, de l'absence de pénalités salariales et de discriminations.

Delegation of Authority and Responsibility:
The top management is in the heart of the TQM principles in order to implement it in a relevant way to achieve the organizational goal. It must delegate authority and responsibility to employees, so that everyone is responsible for their personal performance [6] leading to the achievement of organizational goals

Employee Training:
Training is one of the pillars of TQM which aims to identify and implement several improvement initiatives undertaken by various disciplines [7] . Training will increase the employee's skills and knowledge, thus guaranteeing their effectiveness. Bringing more and more commitment, motivation in other words: the development of the employee among the employee

Leadership:
The role of leaders is to ensure a good match between existing activities and the objectives of each management system [8] . This will motivate employees to achieve the ultimate goal of the organizations. Therefore, good leadership can enhance the productive and constructive approach of the management system in the pursuit of TQM implementation.

Employeeempowerment:
TQM is based on empowering employees to demonstrate a sense of ownership in their organization. Employee empowerment is a prerequisite initiative to increase employee involvement in their work [9]. Thus employee empowerment is the ultimate measure of company performance, which actually determines the success or failure of TQM implementation.

According to DEAN and BOWEN the principles of TQM can be summarized as follows:

- Customer Focus: Customer satisfaction is Important, this requires the focus of the entire organization on the customer.
- Continuous improvement: Permanent customer satisfaction can only be achieved through continuous improvement within the company
- Teamwork: Teamwork leads to employee harmony and thus customer focus and improvement [11].

According to RouhollahMojtahedzadeh and VeeriChettiarArumugam , TQM is based on 7 principles are:
- Leadership,
- Employee training,
- Customer satisfaction,
- Process management,
- Design
- Human resources management
- Suppliers [12]

On the other hand we can summarize in a table the different principles of TQM according to several researchers [13]

Author(s)/year of study	TQM practices
Hassan & Kerr, 2003	Top management, customer satisfaction, employee involvement, quality cost, service design.
Psychogios&Priporas, 2007	Total employee involvement, continuous improvement, continuous training, teamwork empowerment, top-management commitment and support, democratic management style, customer/citizen satisfaction, culture change
Singh et al., 2018	Organizational leadership, customer satisfaction, human resource focus, strategic planning and development, supplier quality management, satisfaction results, business results
Huq&Stolen, 1998	Mission statement, customer focus, management commitment, worker empowerment, communications, performance appraisal system, statistical evidence of quality, familiarity

	with TQM, measures of costs, causes of quality, continual improvement, problem solving approach, education and training, supplier development, quality improvement.
Kumar et al., 2011	Management commitment, customer satisfaction, continuous improvement, teamwork, employee's empowerment, training, feedback, and effective communication
Pino, 2008	Management commitment, customer focus, supplier management, employee training, employee empowerment, employee involvement, information and analysis, product and service design.
Brah et al., 2000	Top management support, customer focus, employee involvement, employee training, employee empowerment, supplier quality management, process improvement, service design, quality improvement, benchmarking, cleanliness and organization.
Prajogo, 2005	Leadership, strategic planning, customer focus, information and analysis, people management, process management, and product quality
Samat et al., 2006	Management support and commitment, employee involvement, employee empowerment, information and communication, training and education, customer focus, continuous improvement.
Talib et al., 2011	Top management commitment, customer focus and satisfaction, continuous improvement and innovation, human resource management, training and education, employment involvement, benchmarking, quality culture, supplier management
Black & Porter, 1996	People and customer management, supplier partnerships, communication of improvement information, customer satisfaction orientation, external interface management, teamwork, operational quality planning, quality improvement measurement systems, corporate quality culture.
Sureshchandar et al., 2002	Top management commitment, human resource management, technical system, information and analysis system, benchmarking, continuous improvement, customer focus, employee satisfaction, union intervention, social responsibility, service culture.
Antony et al., 2002	Management commitment, role of the quality department, training and education, employee involvement, continuous improvement, supplier partnership, product/service design, quality policies, quality data and reporting, communication to improve quality, and customer satisfaction orientation

Table :Comparison of TQM principles

III. DISCUSSION

The commitment of the top management is essential for the success of the TQM, whose main mission is to define the vision of the company's processes, while putting in place the human and material means to achieve the objectives. A particular interest is given to the training of the personnel which leads to their blooming and consolidation of knowledge and thus their effectiveness at work. Leadership is an important tool to excel the implementation of TQM which goes beyond the manager towards the involvement of the staff being the engine of success within the company, the development of know-how and capitalization of experience. The customer is at the heart of the TQM, his satisfaction is a duty, since a satisfied customer is reassured by the ability of the company to achieve a product according to different requirements, and can win in terms of reputation of the company

The mastery of business processes, in order to meet the various requirements related to products. This is done through the implementation of tools and approaches, which allows the company to have a clear view on the risks and opportunities of each process, and subsequently on the situations of

strengths and weaknesses on which the company can act to improve them

Through this study we can conclude that the principles of TQM are:

- Management commitment and leadership
- Involvement of the staff and its training
- Customer and stakeholder orientation
- Process control
- Continuous improvement

TQM is the combination of three terms: Total: a general involvement of everyone (Staff, customers and suppliers); Quality: encompasses the needs of customers; and Management: indicates that top management is committed [15]. Oakland expresses TQM as an organization-wide approach to understanding every activity of every individual at every level of management [16]. TQM strives to integrate all organizational functions (marketing, finance, design, engineering and production, customer service, etc.) to focus on meeting customer needs and organizational goals. Escrig views TQM as a strategic action that focuses on managing the entire organization to deliver products or services that meet customer requirements using all resources [17]. TQM is a holistic management approach that incorporates all organizational activities to satisfy customer needs and achieve overall organizational goals, as outlined by Kumar et al [18].

On the other hand, for high quality assessment of organizational management, TQM (Total Quality Management) [19] is used worldwide and is recognized. However, it is very difficult to establish all management areas of TQM. In addition, the objective of TQM should cover both "product and process" taking into account the basic concept of quality control. On the other hand, we have been working on the development of the ISO/IEC25000 (SQuaRE) series of standards for quality requirements and evaluation of the software system and product [20]

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