

PRINCIPLES OF QUALITY MANAGEMENT AND THE BENEFITS OF THEIR APPLICATION IN EDUCATION SECTORS

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Abstract

TQM practices are important to provide customer satisfaction by improved product performance and sustained towards the organizational goal. The objective of this study was to analyze the relationship between TQM practices, process innovation and employee performance. In this study, six critical success factors of TQM have been identified namely customer focus, leadership, training, teamwork, communication, and top management. Based on thorough literature review, employee performances have been measured by two constructs which are job satisfaction and workplace environment. The results revealed that not all TQM practices enhanced production workers' job satisfaction. Only organization culture and teamwork showed a positive relationship with the production workers' job satisfaction. **Keywords** - Total Quality management, organizational performance, high quality services, satisfaction, Education sector

1. Introduction

People need to do their absolute best and management should give an environment through the steady improvement of the system, which is the supposition, on which Total Quality Management is based. Total Quality Management (TQM) is the speciality of straightening out the whole to achieve significance [1]. It is an improvement of the conventional way to deal with managing a business. It helps for perseverance in the worldwide aggression. This isn't simply a perspective yet moreover a lot of rules and guidelines for advancing enhancements for the organizations and also items proposed to clients. HR and quality strategies are utilized to chip away at all of the processes to satisfy all of the requirements of the clients [2]. The authentic setting of quality control is point of fact as old as the genuine business. The Total Quality improvement started after the subsequent widespread clash in industry, be that as it may, for its immense extension, it stood apart during the 1980s when the Japanese got a gigantic part of the world market under the trademark "Made in Japan"[2]. A brief time frame later, this idea moved into various fields of life to additionally foster execution by quality management [3].

Disregarding the way that TQM was at first made arrangements for the improvement of the advanced area, Deming imparted that the management norms could be applied in much the same way to the help area, which similarly incorporates education [8]. On the other hand, education quality is ending up being continuously huge for individuals who are locked in with it either straightforwardly or by suggestion, and for the people who use its organizations. In like manner, the TQM approach in education incorporates achieving top notch as well as influencing all parts of the educational interaction: affiliation, management, social relations, material and HR, etc [15, 18].

Principles of TQM

TQM relies upon sensitive ideas like organization, respect, dependability, trust, validity, obligation, buyer devotion, straightforwardness and high ethics, clarity of vision, decisive reasoning, nonstop improvement, total affiliation, planning and education, obligation regarding, prize and affirmation, botch aversion, collaboration, nature inspiration, consistency and extraordinary exchanges[5]. While evaluating the thinking of one can see that there are

various standards or ideas, on occasion with different words figuring out a comparable idea. The British Quality Foundation cultivated an overview of 16 focus standards to address the TQM drives[7]. Nevertheless, here, these ideas are gathered into three focal standards. These middle standards are client fixation, interest and cooperation and ceaseless improvement and learning. These middle standards are client fixation, interest and cooperation and ceaseless improvement and learning[10].

Total Quality Management in Education

Total quality was presented by Prof. W. Edwards Deming in the year 1950 and can be applied to fundamentally every organization up to a specific level[19]. The term addresses the method involved with moving the point of convergence of the organization towards a common quality of items and organizations. TQM approach in education incorporates achieving top notch as well as influencing all parts of the educational cycle like organization, management, social relations, material and HR, etc[20]. The presentation of total quality management requires various changes in educational organizations. The first changes need to occur in a surprisingly long time and activities of the management, in the organization and checking of the educational interaction, in the evaluation of its results, in the lifestyle of correspondence, in the school climate, and especially in the space of social relations[13,14].

Challenges in Implementing TQM

A couple of specialists feel a little wary about the advancement of TQM in advanced education [5]. For example, Chaston has recognized a couple of obstacles, for instance, lacking trust among divisions and workers' low conviction level of ability to manage the course of TQM [13]. There are various requests concerning the pertinence of this procedure to educational establishments. Regardless, various foundations all around don't recognize the prerequisite for change. Second, TQM's essential that students are involved as clients and a piece of the 'joint effort', is recognized as a threat to the staff's freedom. Resources draw back from having a student as a client, as in the "the client is right constantly" kind of circumstance. Thus, resources and administrators will by and large accept that they know what the students need.

Notwithstanding, crafted by these researchers doesn't show that advanced education institutions have the accompanying errands: correlation of target settings for the improvement of advanced education institutions with the state educational arrangement, one of the bearings of which is to make a state system of value confirmation and evaluation; formation of instruments that guarantee the nature of educational administrations given by advanced education institutions; escalation of joining processes in the fields of education, science, culture and creation with regards to guaranteeing the nature of education and expanding the intensity of educational structures[11].

Without tackling these problems, it is difficult to carry out a program of modernization of the Ukrainian education system inside the structure of a solitary financial arrangement of the state, pointed toward taking care of the issue of guaranteeing the nature of preparing of current specialists[13].

2. Literature Survey

The authors [9] proposed Quantity Measures of Quality in Higher Education in Russia. How Information Technologies Can Help? In the review were discovered a few markers, including helpful, mathematic and normal logical literacy, and interconnection between instruction programs and work market needs, which enhancements will prompt the nature of advanced education increment. Data innovations can assist with gathering and give up-to-day information, that are significant for quality, particularly in the TQM idea. In any case, data innovations need to further develop information precision and comparability.

Total Quality Management [10] Framework for Higher Education Institutions in Ghana. Observational studies of TQM and TQM systems in HEIs were directed. The review utilized both subjective and quantitative analysis. The contextual investigation configuration was additionally utilized to depict and access the peculiarity. A purposive examining method was utilized to choose fifteen (15) Quality Confirmation Authorities from three public HEIs in Ghana. An example size of 400 respondents was utilized for the analysis of the quantitative information. The subjective information gathered were investigated utilizing topical analysis. The discoveries from the review helped with a thorough analysis to model an Academic Quality (ACQ) system which was not finished by earlier studies.

The authors [11] proposed the impact and effectiveness of participating in external quality assurance programmes in quality management and improvement at a local institute medical laboratory, South Africa. The review followed a quantitative methodology by which review polls were messaged and passed out to lab staff. The member's reactions were summed up and investigated utilizing recurrence tables and histograms. The information analysis results showed that the EQA programs assume an imperative part in quality administration and improvement. Most members showed that they perceived the job the EQA programs play and felt that it is essential for a clinical lab to participate in such programs, combined with other quality assurance and quality control procedures like IQC, everyday QC procedures, restorative activity and continuous education.

The proposed Quality assessment [12] of technical education in Indian Engineering Institutions. A quality evaluation study was done on fifty designing organizations in India viz 35 foundations that were under 10 years of age (Type-1) and fifteen establishments that were over 10 years of age (Type-2). On comparing Type-1 establishments with Type-2 foundations, it was apparent that Type-2 foundations scored essentially higher scores in models that included Mission, objectives and association, Monetary Assets and Use, Physical assets, HR, Teaching learning processes, Exploration and Improvement and Industry Institute cooperation.

“An Integrated Framework of Indices for Quality Management in Education: a Faculty Perspective”. The idea of educational quality [13] is complex and multi-faceted as for conceptualization, appraisal and estimation and it is hard to be evaluated through one point of view. To work on the quality of education, it is important to know the quality aspects and evaluate the ongoing quality levels. Higher educational foundations need more viable conveyance frameworks to resolve the quality issues and execution of advanced education frameworks.

3. Proposed Methodology

Information Gathering

In the progression of information and information arrangement, there are two gatherings of information known as fundamental and discretionary information. Fundamental information is associated with information that is gained by different strategies like gatherings and survey course. The wellsprings of discretionary information are composing studies, papers, magazines, related articles, and the web.

Primary data

Fundamental information can be assembled in three ways: perceptions, assessment, and gatherings. Using gatherings and insight is more typical than assessment. Dependent upon the information required, the requests in the gatherings are remarkable. For instance, for a factual report, the requests ought to be limited to two or three choices for answering. Abstract outlines are suitable with open requests and result questions. For this situation, planning a request for making the own interpretation out of each question can incite further developed results.

In Depth interviewing

Subjective analyst's use and trust significant gatherings more than various techniques for information arrangement." A subjective gathering is depicted by its width instead of its significance. In actuality, Interviewing differs with respect to a past turn of events and in the expansion; the interviewee has in responding to questions.

Interviews are secluded into three gatherings according to "Patton". These gatherings are the easygoing conversational gathering, the regular gathering guide approach, and the standardized open-completed interview. Subjective start to finish gatherings is like conversation rather than formal systems with saw answers. For this situation, the questioner presents a couple of real factors and typical issues to uncover the part's perspectives, yet on the other hand, respects how the part structures the reactions.

Additionally, systematization in acting requests ought to be seen like when various interviewees participate in the gathering or the explanation and examination of the results is essential for the questioner.

All around, interviews produce a ton of information quickly when numerous people share. The fundamental piece of the questioner's procedure is considering the part's perspectives helpful and important. Additionally, the prospering of talking depends upon the questioner's occupation in moral issues, meaning her capacity to convincing correspondence and cooperate. Regardless of the way that gatherings are fruitful and accommodating in obtaining information and finding a couple of real factors, they have a couple of limitations and wobbly spots.

For instance, maybe the interviewee doesn't will for the most part address all of the requests presented by the questioner, or considering the shortfall of calling or novelty to the close by language, the questioner committed a couple of mistakes in making questions and couldn't show her chief item in tending to. Questioners ought to be skilful at tuning in and question planning. A ton of information can be gathered by talking, but inspecting all of them takes a lot of time.

Thus, the critical issue is the quality and important use of accumulated information. Anyway, due to a shortfall of time for the interviewees, the analysts couldn't address the requests all in all, and a piece of those missed requests was fundamental to be presented. 51 Nevertheless, the specialists send back answers to the requests presented in the gathering to the respondents, to grow the constancy of their work. The respondents upheld what was created by the questioners, indeed.

Considering everything, two wellsprings of information have been used in this work. From fundamental information, the gathering was used and from discretionary information composing studies, the specialists used related articles and the web.

All quality management system strategies are documented. The rundown of required reports is introduced in four levels.

The first level

Theoretical records: "Quality Policy", "Mission and Vision of a Higher Education Institution", "Quality Objectives", "Idea of Higher Education Institution Development", archives depicting the education quality management system, "Rules for the quality of an advanced education foundation (structural units)" [16].

The subsequent level

Documented techniques: documented strategies for management at the degree of advanced education organization (structural units): documentation management; record management; inner reviews; restorative and preventive activities [17].

The third level

Management documentation that guarantees the viability of the management cycle: managerial, administrative, preparing, data and reference documentation [16, 17].

The fourth level

Revealing documentation: records on the aftereffects of inner reviews of the education quality management system, analytical reports of the observing office, data and analytical notices, and polls of understudies, educators, and bosses, for which the advanced education organization prepares graduates [16, 17, and 20].

The beneath figure shows the components of the advanced education quality management system.

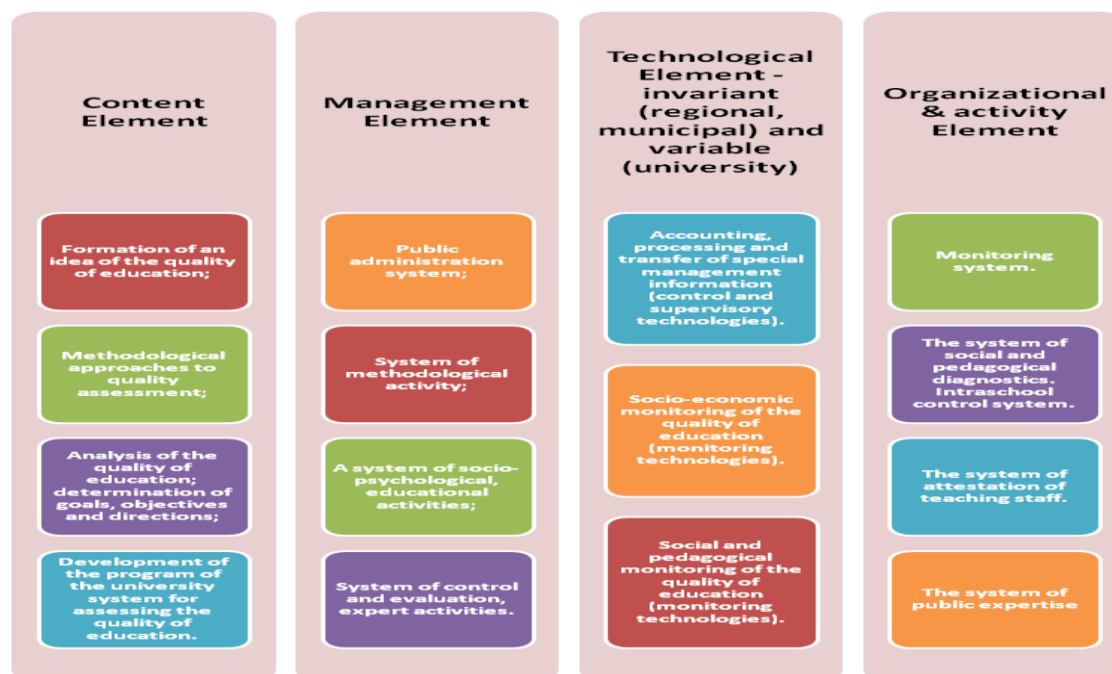


Figure 1. Elements of higher education quality management system

4. Experiment Result

Analysis of Mean score for Total Quality Management

Table 1 rundown the mean, level of importance and rank of dimension for TQM. Client center addressed the most elevated significant level with a mean score of 4.253 contrasted and others which were ranked in the first still up in the air as the most critical achievement factor for TQM practices. Then, it was trailed by the leadership with a 4.071 mean score, preparing with a 3.961 mean score and communication with a 3.978 mean score. Notwithstanding, collaboration and top management were ranked as fifth and 6th spots as their mean score was lower contrasted with different dimensions with a mean score of 3.655 and 3.766 separately. To put it plainly, client not entirely settled as the most critical achievement factor while collaboration is the less critical achievement factor in view of the mean score.

Dimension	N	Mean	Level of significance	Rank
Top management	102	3.766	High	5
Leadership	102	4.071	Very High	2
Customer focus	102	4.153	Very High	1
Training	102	3.961	High	3
Communication	102	3.978	High	4
Team work	102	3.655	High	6

Table 1. Mean Score Test for TQM

Results on TQM Practices Dimensions Measure

In light of the results in Table 1, showed that customer center was recognized as the most critical achievement factor for TQM practices with the most elevated mean score of 4.153. This result can be demonstrated by Deming (1982), that customer center is the main piece of the creation, and that implies creating and conveying items and administrations that satisfy customers' present and future necessities and expectations. It cleared up surpassing

customers' expectations for guarantee long haul organizational achievement and endurance. It is vital for each organization to create a customer-centered culture.

There are numerous motivations behind why an ever increasing number of organizations are deciding to become customer-arranged. The least complex of these is that it provides them with a superior comprehension of what the customers need. To reach of progress, organizations should be more centered on enchanting customers, instead of on creating gains. Numerous respondents very concur that they expanded individual contact between the organization and customers. Involved customer requirements as the reason for quality and furthermore supported action to further develop customer fulfillment. Additionally generally be ready and refreshed on the requirements and criticism from customers. With this movement they can ensure they can achieve surpassing customer expectations.

Analysis of relationship between TQM and EP

In this section, linear regression was conducted to analyze the effect of TQM (independent variable) on the EP (dependent variable). From Table 3, there was a positive effect of TQM on EP which was significant at 0.01 level, ($\beta=0.809$, $t=11.179$, $\text{Sig.}=0.000$). It also showed that R square for this regression model was 0.555; it means that 55.5 per cent of the variance in employee performance was explained by the total quality management. Thus, it can be concluded that there is a significant relationship between TQM and EP which represent the TQM practices could affect EP.

Results on the EP Dimensions Measure

In light of the outcome, representative fulfillment got the most noteworthy score with 3.848 and followed by work space with 3.834 mean score. Thus worker fulfillment is distinguished as the critical achievement factor in the organizational execution in view of the ranking. This is especially valid for worker contribution and occupation execution that is straightforwardly impacted by TQM on representative inclusion due to laid out participative exercises and occupation execution due to the circumstances created fundamental for good execution. As indicated by Romano (2002), had characterizes worker fulfillment "as a singular's overall disposition toward" their work. As a matter of fact, Total Quality Management covers each perspective on the lifestyle and activity that is directed in an organization.

Results on Mediating Role of PI

Subsequently Process advancement was to complete about the middle person influence on total quality management practices. It means to realize what might befall TQM is advancement practice will be applied simultaneously. And furthermore to concentrate on the relationship between process development and representative execution to what will befall worker execution is would be increment or lessening. Execution of advancements offers a chance to modernize the structures of assembling and administrations, further develop items and innovations, to raise their global rivalry, consequently, it will improve the organization in the industry and acquired benefit from their item.

5. Conclusion

The goal is to analyze the relationship between TQM practices, PI and EP in the automotive industry. It was additionally observed that there was a positive correlation among aspects of TQM practices. Additionally, there was likewise major areas of strength for a showed up between aspects of TQM practices and EP. Besides, an immediate positive relationship was demonstrated to exist between the TQM with PI, TQM with EP and PI with EP. It has satisfied the first three speculations in this exploration.

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