

Application of Total Quality Management in Education – An Analysis

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Abstract: Quality education is a huge worry in several societies throughout the world. In an extremely aggressive education segment, the accomplishment of academic institutions relies on the quality of education that is imparted. Hence total quality management (TQM) has gained importance and researchers, educationalists, scholars; policymakers are all showing their genuine interest towards TQM. Total Quality Management is accepted as an efficient management philosophy for customer contentment, continuous improvement, and organizational distinction. The fundamental idea of TQM is a democratic approach to tackle the question(s) of quality in business and in the area of education. Ubiquitously, the function of Higher Education is shifting and becoming increasingly incorporated into the procedure of economic growth and success. This structured worldwide occurrence is throwing multitudes of significant challenges with regard to developing a qualitative approach for handling higher education in a worldwide platform with an obvious goal to bring consistency in many significant areas and decrease the gap of bias in terms of quality education towards understanding and talent building.

Keywords: Quality in Higher Education, Implementation, Transformations, Culture, Models of implementation, Higher Education Institutions, Customers of higher education Quality, Total Quality Management (TQM), Compatibility, Challenges, Continuous Improvement, Quality Culture

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I. Introduction

Quality has been the objective timeless throughout the passages of human history. It has been the dynamic force for all human activities. Quality is the motivation for superiority from the ordinary to the advanced regions of life. It is the foundation of longing for the extending human development through ages immemorial. Nonetheless, it has effectively dodged the dragnet of definitions showing the insufficiency of human brains. Quality gazes at you. You identify it. Yet you are not able to define it. Quality dwells in the view of the consumer. What is “grand” for one may not be fine enough for another (Mukhopadhyay 2006, p.22).

Quite a lot of investigators have articulated models for quality advances (Johnson 1993; Susan 1995). These models are titled as Continuous Quality Improvement (CQI), Strategic Quality Management (SQM) or Total Quality Management (TQM). Albeit there might be some distinctions amongst these approaches, the expression TQM is conceived to be universal to arrest the spirit of quality betterments. TQM has been outlined as a planned architecture calling for assessment and modification of constant improvement practices in all regions of utility.

Corrigan (1995) defines TQM by stressing on customer satisfaction: that “TQM is a management philosophy that builds a customer-driven, learning organization dedicated to total customer satisfaction through continuous improvement in the effectiveness and efficiency of the organization and its processes” (p. 61).

As said by Kaufman (1992), overall quality management renders what is necessary as estimated by the client. It is achieved via everybody in the business being dedicated to attaining results, fervor for quality and decisions established on performance data. TQM stresses that it is significant for all components to fit collectively to convert raw materials into the finished products and deliverables that suit clients. Customer contentment is the consequence most dealt with TQM (Crosby 1979; Caplan 1990).

Neves and Nakhai (1993) explain the fundamental principles of TQM as follows: “long-term perspective, customer focus, and top management commitment, systems thinking, training and tools in quality, increased employee participation, development of a measurement and reporting system, improved communication between management and labor, and continuous improvement”. In a broad-spectrum, TQM includes a lot of management as well as business philosophies and its center of attention gets changed, dependant on the situation where TQM is enforced. Irrespective of the fact it is in industry or higher education, TQM values rotate around the client.

The emergence of TQM in the education field

TQM in education emerged in 1988 at Mt. Edgecombe High school in Sitka, Alaska, when David Langford, the technology teacher/coordinator of the school applied Total Quality ideas in his classes. TQM has turned out to be progressively more accepted in education, as manifested by the plethora of books as well as journal articles ever since 1990 (Tucker 1987). TQM has as well widened into the mainstream of instructive organizations.

To backup the TQM openings in education, Crawford, and Shutler (1999) enforced Crosby (1984) model to propose a practical policy for applying TQM principles in education. Their policy concentrated on the quality of the teaching arrangement used instead of on students' examination outcomes. They indicate that assessments are an analytical tool for ensuring the quality of the teaching arrangement. To convince the educational requirements of students, constant development attempts must be directed to curriculum and delivery services.

TQM's compatibility with education

Michael et al, (1997) state that, "TQM can be defined as a general management philosophy and a set of tools which allow an institution to pursue a definition of quality and a means for achieving quality, with quality being a continuous improvement as determined by customers' satisfaction with the services they have received. It indicates the flexible aspect of TQM, i.e., it is applicable to any organization and subject to adjustment as per merit of the situation." With the assistance of TQM, an academic institution can develop its own meaning of quality, standard, and quality enhancement practices with regard to requirements of customers. Meirovich and Romar (2006) detect that the determinations of the literature on the worth of TQM in education are conflicting.

But still, some authors are very much confident about the pertinence of TQM in education. Srivanci (2004) believes that the values of TQM are likewise suitable in higher education. TQM principles are well-matched with higher education as observed by Helms and Key (1994).

The discovery of James and James (1998) is striking; they reckon that TQM is, of course, applicable to higher education, as it is a procedure-oriented approach that is intended to increase productivity, decrease costs and improve quality. Deming, W.E. (1993) articulates that the acceptance of TQM will help higher education institutions to preserve their competitiveness, get rid of inefficiencies in the organization, assist to focus on the market demands, achieve high performance in all areas, as well as accomplish the wants of all stakeholders. Tribus (1993) considers that education can be enhanced through TQM.

Peak (1995) asserts that TQM ameliorates educational organizations in several ways, for instance bettering education process, creating the educational environment inspiring, improving educational syllabus, promoting the speed of training services plus decreasing prices. TQM is a method of attaining and preserving excellence in higher education as recognized by Eriksen (1995). Dobyns and Crawford-Mason (1994) remark that whatever the decisive incentive, where the quality direction has been enforced in education, it has made a huge distinction as remarked.

According to De Jager and Nieuwenhuis (2005), "even though TQM developed within the manufacturing environment, the benefits are equally applicable to service organizations such as higher education institutions. Murad and Rajesh (2010) perceive TQM is a general management philosophy and a blend of various tools which induce educational institutions to pursue a description of the quality and the means to achieve it."

Several authors consider that TQM is to some degree appropriate in education. TQM principles are only rather helpful in a vibrant and altering environment which is a trait of contemporary higher education as detected by Koch and Fisher (1998), and Houston (2007). Even though higher education institutions are unlike companies nevertheless, a few of the fundamental standards and instruments are appropriate as these are devices at the service institutions and their power and management boards are subject to the institution's academic undertaking, goals, and schemes as detected by Dill (1995) and Harvey (1995). In 2 diverse studies by Venkatraman (2007) and Peat et al (2005), it has been established that TQM is a decision-making instrument to determine the issues linked with services and tactics in the academic industry and it can be conventional to the criterion in the education industry.

According to Williams G. (1993), constant quality development; quality constancy; participation of academics, students as well as non-academic staff; contentment of the clients; plus the reality of management processes that strengthen quality are some of the quality management programs that nobody considers as immaterial in the background of higher education. Arcaro J. (1995) supposes that quality can produce an ambiance where tutors, parents, government officials, community delegates, in addition to business leader exert together to convey students with the resources they require to meet present and future academic, business, as well as societal requirements. Bayraktar et al (2008), states that "a number of TQM elements have a critical role in process improvement including, 'leadership', 'vision', 'measurement and evaluation', 'process

control and improvement', 'program design', 'quality system improvement', 'employee involvement', 'recognition and reward', 'evaluation and training', 'student focus', and 'other stakeholder focus' in education."

Many of the scholars find that some TQM instruments and techniques are persuasively appropriate in education. For instance, Sirvanci M.B. (2004) cites that the utilization of quality function deployment (QFD) which is applied to include the inclination of customers and other stakeholders in plan design. Quinn et al, (2009) discuss the relevance of Six Sigma, Service Quality (SERVQUAL), ISO9000, in addition to TQM in higher education. It has the ability to offer practical solutions, optimistic results in academic as well as administrative functions.

From the aforementioned discussion, it is apparent that TQM is believably attuned to education. Yet, in this association the comment of Sousa and Voss (2001, 2008) is quite attention provoking; they remark that TQM rationales are not collectively applicable across all backgrounds but are dependent on related factors. It entails that TQM tools plus techniques are subject to modification while enforcing in education.

Components of TQM

Farooq et al. (2007) assert that the fundamental subject of TQM is a democratic approach to deal with the question(s) of quality in business and in the field of education. He asserted on the want of every individual who is functioning in an organization should partake in the constant development plan to make total quality feasible. Infrastructure is one of the most significant pointers of TQM. If we are deficient in refined infrastructure, most modern technology enforced in the field of education, we cannot be triumphant in the carrying out of TQM in education. The elements of infrastructure which backup quality of education are well-furnished classrooms, health provision, water provision, guidance as well as counseling cell and ombudsman cell.

The infrastructure in the type of well fitted out libraries, laboratories, playgrounds, well aired, well equipped and well-facilitated classrooms, reading rooms, internet feature, accessibility of scientific instrumentations, drinking water provision etc. should be in an establishment to accomplish quality standards.

Why TQM in education

Almost all available literature directs to an increasing attention in giving TQM in education for an extensive assortment of reasons, Thakkar et al. (2006). A few of the reasons comprise forces from industry for constant improvement of academic measures with altering technology; government strategies with allotment of funds, which support research plus teaching in the area of quality; raising competition between different private plus government academic institutions and decrease in the pool of funds for research plus teaching, entailing that merely highly regarded institutions will have a probable possibility of giving contact to a range of funds.

Crosby (1984) states that unless the strategy is centered on the quality of the education system and development, the objective of TQM cannot be achieved. Kaufman, (1992) opines that TQM in education cannot be achieved without everybody in the association from top to bottom being dedicated to attaining results a fervor for quality and pronouncements established on performance data, Corrigam (1995), states that unless an association creates a customer determined, learning organization devoted to overall customer contentment TQM cannot be productive. "A set of fundamental core values forming building blocks of proposed TQM framework is leadership and quality cultures continuous improvement and innovation in the educational process; employee participation; and development; fast response and management of information customer-driven quality and partnership development; both internally externally", Juran and Gryna (1980).

II. Methods

The fact that TQM has been functioning regularly in the business efficiently and productively, however, there are a few strong causes for applying it in the instructive institutions cannot be denied. Firstly, the certainty and need of change is not welcomed and acknowledged by the institution's majority of the time. Secondly, the establishments face the self-rule of faculty's individuals. Consequently, in TQM approaches, the participation of team as well as customers are respected and considered too, Fisher (1993, pp. 15-19). Finally, TQM will perk up the existing process in the HEIs. The radical alteration cannot be pushed there effortlessly, Fisher (1993, pp. 15-19); Marchese, (1993, pp. 10-13). The pertinence of TQM is made acknowledged in education first and then the process of its procedure is going to be dealt.

For the relevance of TQM, a few models have been proposed and in the field of HEIs, numerous organizations have been audited with regard to the pertinence of TQM in HEIs. Five stages model have been presented and exhibited by J. Motwani and A. Kumar (1997, pp.131– 135) trusting that it merits applying to each association with no special case by any means. The five stage's model does; deciding, preparing, starting, expanding and evaluating.

J. Motwani and A. Kumar (1997) has proposed such a TQM model, that undoubtedly explains what should be done and what measures it requires for the usage of TQM. On the off chance that we begin contemplating once again the Deming cycle and these stages, we come across numerous resemblances between

the two. These resemblances will fill the more prominent need as in the combo and integration of both will bring more adequacy and productivity regarding quality change frameworks and TQM in HEIs.

Deming Cycle as a TQM method in higher education

Deming, Father of TQM has put forward the idea of Plan, Do, Check and Act cycle (PDCA cycle). This cycle can be enforced by a management education institution for quality improvement. PDCA cycle approach to quality enhancement assists the institute concentrate on the objectives and acquires the dedication of all the stakeholders to the achievement of the set objective. It is detected that the principle and utility of Deming cycle is the constant development of quality procedures while the chosen TQM model perks up the quality. Consequently, it will be forged as a 4 step cycle and the elements are as mentioned below:

Plan

The plan step has been divided into 2 sections. The first one is the study of TQM which incorporates the examination of what is TQM and its ideas and the management perceives the idea and its perspectives, goals and they start the arrangement as needs are. The next portion of this arrangement is to plan for the reason and perform an initial investigation of the quality work alongside characterizing and recognizing the qualities, approaches, and tools. In this part, the dreams and targets should be cleared and exhibited for the more noteworthy reason and result too.

Do

The 'Do' step in this model is about the start, sketch and implement the solutions with agility. For this reason, training should be brought in at all levels with regard to terms like quality, TQM, nucleus values, methodologies, and instruments. The client surveys should be carried on efficiently and presented to both the internal and the external customers. The preparation of the quality committee and quality development teams will establish a landmark in this respect.

Check

This step is nothing but the assessment of the plans and 'do' steps consequently. More concentration is on the scrutiny of actions that have been done assuring that these actions are in the correct directions and actually leading in accomplishing the set objectives and intentions in the quality enhancement.

Act

The Act step is separated into 2 parts. The happenings of the issues contribute towards reaffirming the systems enforced before. This step is vital as it supervises and figures out the solutions for the issues and provides new modes of carrying out things efficiently and with measures. The standards of doing work are to be *au fait* and this will stop the needless alterations and problems been struck within the developed systems.

III. Results

Key challenges in carrying out TQM in educational institutions

Without an iota of doubt, TQM has the complete potentiality to serve education. It cannot be decided that implementation of TQM in education does not come without any challenges or barriers. Some educationalists consider that beliefs which are formulated for business may not be suitable for service organization like educational institutions. The schools or any other kind of academic organizations are very much dissimilar with a diverse culture and distinctiveness that made tricky, or even not possible to put into practice a viewpoint which has been inferred from industry Seymour, D.T. (1991), Birnbaum, R. and Deshotel, J. (1999) Brinbaum, R. (2000) Massy, W.F. (2003).

Rosa et al., (2012) express that the terms, for example, product, customer, empowerment, or even technique, re-engineering does not effectively correspond in higher education institutions. The greatest obstruction could be the dedication of the parties involved in the education system, particularly the top administration and instructors. Darker et al., (1994) notes that absence of top administration responsibility influences TQM endeavors adversely, which is one of the primary reasons for the failure of TQM endeavors.

As per Massy (2003), the intense confrontation to quality procedure improvement originates from educators who think of it as simply one more business-oriented craze; a distinctive state of mind may weaken the helpfulness of TQM in education. The part of the individual, especially the educators are frequently casual and less bureaucratic in the customary education system. Then again, Koch and Fisher (1998) observe that TQM approach is by all accounts more managerial and bureaucratic; there is a propensity to deliver relentless meetings, produce huge measures of paper, and postponement or run away from critical decision making.

Youssef et al. (1998) find that the clients of advanced education are considerably more different and not all that effortlessly defined. This circumstance is entangled on account of the tertiary level of training. A student can be both the consumer and customers in case he/she pays his/her educational fees. In the job market, business associations are additionally the clients. On account of scholarship students, sponsors are the clients. In general, the state is likewise a client.

As per Srivanci (2004), without an exact definition of customer and a customer center, quality endeavors might be effectively diffused. Seymour (1991) distinguishes various reasons behind unsuccessful utilization of TQM in advanced education, for example, change resistance; lacking organization duty; high time investment due to personal training; trouble in applying TQM devices to advanced education institutions; inadequate experience of group pioneers and staff in cooperation; the anxieties of advanced education establishments have with their own particular outcomes not being sufficiently adequate.

Koch (2003) recognizes an extensive variety of reasons, these are: lost in focus, i.e. TQM tends to put more stress on non-academic exercises instead of main educational activities; confrontation from the faculty members as it (TQM) blocks their power and opportunity, infringe the privacy connected to appraisal, promotion, pay etc and practice teamwork in education process as these are not predictable with the conventional teaching procedure; and defining clients and estimating results are two noteworthy difficulties in enforcing TQM in education since an extensive variety of clients are associated with advanced education so it is extremely troublesome to find out who are the genuine clients in education, it is similarly hard to quantify the results of quality initiatives.

Rosa and Amaral (2007) as well point out a number of roadblocks in enforcing TQM in education the lack of efficient communication channels; the difficulty in evaluating higher education institutions effects; the co-survival of multiple functions and aims for higher education institutions; the stresses in the individualism and major degree of interior competition; the technical decision-making procedure; and the need of a strong leadership, highly dedicated to the ideas plus principles it needs to apply and competent to involve all members of the institution.

Dale, et al. (2007), detects some grave barriers for instance: unproductive leadership; an obstacle to change; opposing policies; unsuitable organizational arrangement; and poor management of the transform process are other deficiencies in the implementation of TQM. Kosgei (2014) states that “a number of challenges in this regard, too; these are: lack of commitment by the management and some workforce, school’s organizational culture, poor documentation, inadequate training of staff, and ineffective communication.”

IV. Conclusion

In all domains, particularly education quality is a significant matter. TQM as an essential component at all times has a straight authority on the human development. It can in a way as well lead to high dedication and spirit in work surroundings. Application of TQM in education will provide enhanced outcomes in all fields of the course of education as a high-quality technique of management utilized and established giving outstanding results in other industries as well as business organizations. It is the prerequisite of amazing customer’s contentment. It is established in the democratic management philosophy. It trusts on ceaseless advance through the joint efforts of members of the learning organization. TQM beliefs support the students, teachers in addition to the employees for amazing performance. Being a prospective paradigm we can get advantages of TQM in educational institutions both public as well as private. TQM can assist a school or college rendering enhanced services to its main customers; students and employers. The nonstop improvement spotlight of TQM is a basic way of satisfying the responsibility prerequisites universal to educational improvement. Functioning on a fearless TQM arrangement with a focal point on incessant development and improvement presents more enthusiasm and challenge to students and teachers than an acceptable learning atmosphere can provide.

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