

TOTAL QUALITY MANAGEMENT IN HIGHER EDUCATION-INDIAN PERSPECTIVE

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Introduction

India is entering the global employment marketplace with self imposed handicap of which we just beginning to become conscious –an acute shortage of quality institutions of higher education. Far far too long, we have been complacent about the fact that we had produced, since the 1960 the world's second largest pool of trained scientist and engineers -Shash Tharior, (The Former UN diplomat). The Indian Education system is one of the largest in the world. At the time of attainment of independence there were only 20 universities and 500 colleges with 0.1 million students in India. After independence, there is a remarkable growth in the higher education system of India. There is a continuous growth in the higher education instead of various challenges like globalization, financing, infrastructure facilities, quality management etc. The research report by shashi Srivastava (2006) stated that India is the third largest education system after US and China with 348 universities 17,625 colleges 500,000 teachers. The latest research stated that India has 611 universities and 118 university level Institutions and 31,324 colleges as on August 2011. In order to develop the higher education, the role of Total Quality Management (TQM) cannot be under estimated. Vision of 12th Five year plan is to promote the higher education by forming new universities and increasing the intake capacity of present universities and colleges.

Kothari Commission (1966)² listed the roles of the universities (Higher education institutions in the modern society) to seek and cultivate new knowledge, to engage vigorously and fearlessly in the pursuit of truth, and to interpret old knowledge and beliefs in the light of new deeds and discoveries, to provide the right kind of leadership in all walks of life, to identify gifted youth and help them develop their potential full by cultivating physical fitness, developing the powers of the mind and cultivating right interests, attitudes and moral and intellectual values

and to provide the society with competent men and women trained strive to promote quality and social justice, and to reduce social cultural differences.

The authorities involved in management of higher education system in India like UGC, AICTE, QCI, DEC, BCI have made serious efforts to improve the quality education in India and also to match Indian education standards with the international norms.

In spite of so many measures taken by various authorities and by the Government, the quality and the employability skills among the Indian institution is getting deteriorated .The ranking of institutions in terms of quality standards in the world level also getting changed. QS World university survey 2016 ranked that IISC lies between 251-300 and IITS were ranked between 351 to 400 and other universities were in the range of 600 to 800, where as the two Indian universities were in the Top 200 list of world best universities by 2015. India is ranked in the place of 8 regarding the employment compared to UK and German. India is home of 1.27 billion and half of the population is under the age of 25 and with the projected average age of 29.India is one of the world's youngest population by 2020 and also world second largest population in students enrolment in higher education .

So TQM in the educational institutions is the need of hour. In this paper the need of continuous quality improvement, components of TQM, and challenges in TQM in higher education, means and strategies adopted by different educational institutions are discussed. The study has been conducted by consulting existing literature through historical approach.

Defining Quality and TQM

The word quality is derived from Latin word qualis, which means “what kind of”. It connotes a variety of meanings and implies different things to different people. According to Juran “Quality is fitness for use or purpose”. Crosby considers it as “conformance to standards”. Deming defines quality as “a predictable degree of uniformity and dependability at low cost and suited to market”. In general quality is one, which satisfies customer needs and continuously keeps on performing its functions as desired by customers as per specified standards.

The British Standard Institution (BSI) defines quality as “the totality of features and characteristics of a product or service that bears on its ability to satisfy the stated or implied

needs” (BSI, 1991). Green and Harvey (1993) identified five different approaches to defining quality: In terms of exceptional (Exceeding high standards and passing required standards); In terms of consistency (exhibited through “Zero defects” and “getting right the first time”, making quality a culture); As fitness for purpose (meaning the product or service meets the stated purpose, customer specifications and satisfaction) As value for money (through efficiency and effectiveness), These different notions of quality have lead Reeves and Bedner (1994) to conclude “the search for a universal definition of quality and statement of law like relationship has been unsuccessful”. According to Gummesson (1990) it might be useful to create an insight into the many dimensions that form a fuzzy entity referred to as quality through social consensus rather than defining it. Garvin (1998) classified the various definitions of quality into five major groups: (1) Transcendent definitions: These definitions are subjective and personal. They are eternal but go beyond measurement and logical description (2) Product-based definitions: Quality is seen as measurable variable. The basis for measurement is objective of the product. (3) User-based definitions: Quality is a means for customer satisfaction. This makes these definitions individual and partly subjective. (4) Manufacturing-based definitions: Quality is seen as conformance to requirements and specifications.

Total Quality dimensions in education Sector.

Total Quality Management (TQM): Feigenbaum, devised the term in 1961, who named it as total quality control (TQC). TQM can be defined as “the process of integration of all activities, functions and processes within an organization in order to achieve continuous improvement in cost, quality, function and delivery of goods and services for customer satisfaction”. It refers to the application of quality principles to overall process and all the management functions in order to ensure total customer satisfaction. TQM implies the application of quality principles right from identification of customer needs to post purchase services. TQM has been adopted as a management paradigm by many organizations worldwide. Quality movement in across the world starts with quality improvements project at manufacturing companies. But later it spread to other service institutions including banking; insurance, nonprofit organizations, healthcare, government and educational institutions.

Mohamed Hassan (2014) has stated that the Total quality management in higher education has three approaches such as Customer focus, Staff focus and service agreement position and attempt

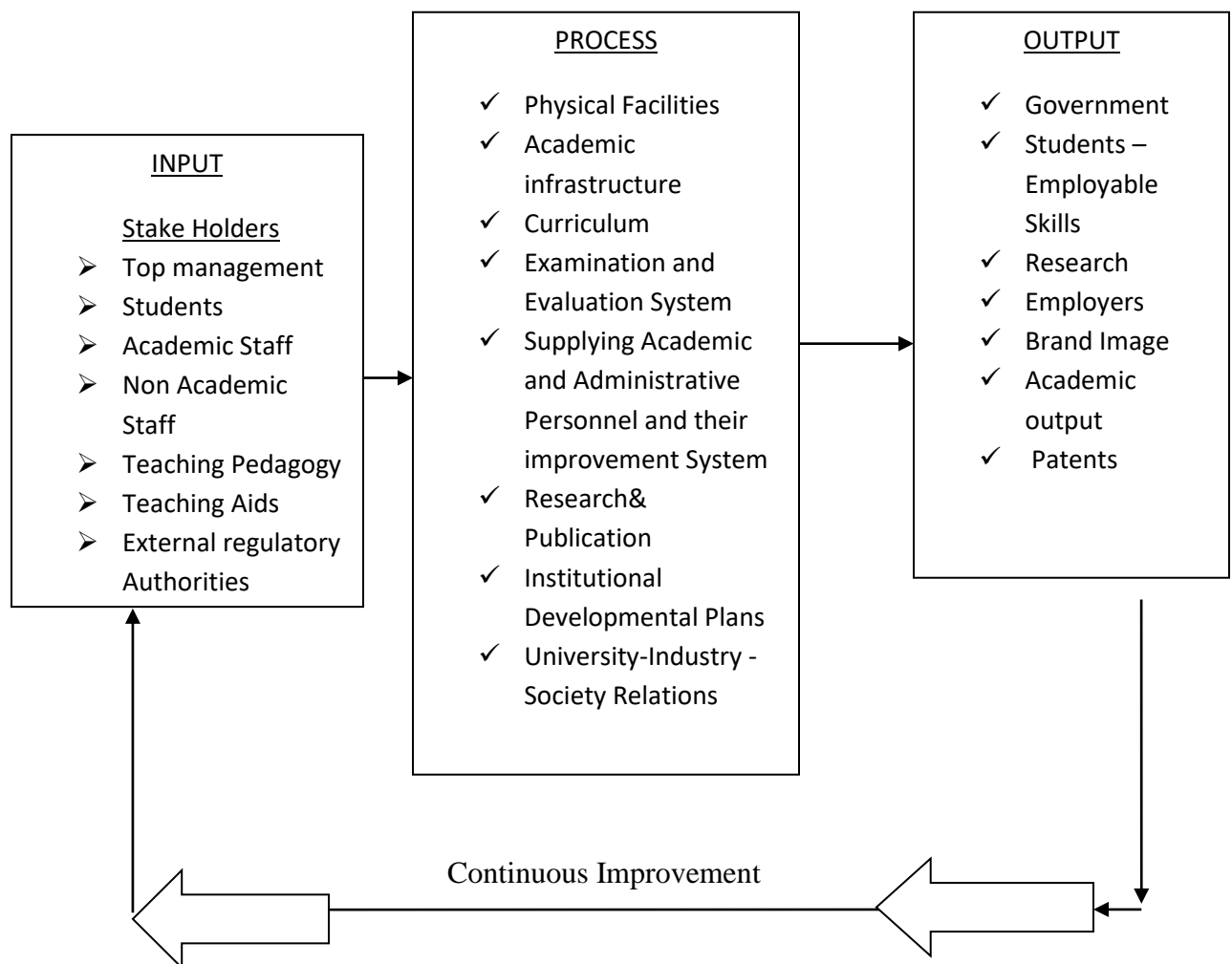
to guarantee compliance in stipulation at sealed access measurable degrees of education procedure. Abdulraheem (2013) derived the following major dimensions for TQM in Education Institutions.

Consistency: Here the educational processes involve specifications through zero defect approach and a quality culture. But the limitations are in achieving consistent standards and conformity to those standards.

Fitness to purpose: fitting the customer specifications, minimum-based fitness for purpose and customer satisfaction.

Value for money: through efficiency and effectiveness Transformative: education is an ongoing process of transformation that includes empowerment and enhancement of the customer.

TQM IN EDUCATION INDUSTRY-A MODEL



1 **Input:** Stake Holders are the major criteria to be considered. The focus should be on Top Management – suppliers and Students, Academic Staff and Non Academic staff, Use of Teaching Aids and Teaching pedagogy

Suppliers include families, high school, two-year colleges, and business. The customers include the business community, state sector, graduate school, society, student, and families. The students as the customer. Universities have a large number of different customers. University management should consider the relative importance of each customer group and balance and reconcile the interests of these diverse groups. Stanford University defines its customers as “the student customer”. Harvard University states that “the customer is defined as anyone to whom we provide information or service”. All the above statements mentioned ‘students’, as being customers of higher education. Students as consumers of knowledge and services are considered to be ‘the main customer’. Accepting students as an important group of customers can be taken as a revolutionary change in the management of quality in higher education. That group of students, as the consumers of education, should include potential students, existing students and graduate students. The university has different priorities and services for each group of students who make up the main customer group and attempts to satisfy their different needs. For example, introductory courses for potential students, student counseling for existing students and alumni associations for graduate students. The Educational institution should focus on the teaching pedagogy and techniques of teaching. All leading institution makes difference in this criterion.

Process: This Includes Physical infrastructure, Academic Infrastructure, Curriculum, Examination and evaluation System, Supplying academic and administrative personal and their imperative system. Research and publication, Institutional development plans and University – Industry-Society interaction.

The processes include all facets of teaching, student counseling, and scientific research. The first process is to assess the educational needs of students in terms of their existing knowledge, future career opportunities, and the needs of the community and its future development. Other processes to be followed are planning curriculum for courses, including allocating resources, arranging facilities, administration and support, and finally teaching and learning. The quality of all these processes must be effectively and visibly assured. Like manufacturing systems, educational systems can include a means by which customer research can be conducted to evaluate and improve supply. For example, by observing students, analyzing test results, and using other resources from student feedback, instructors can assess their own effectiveness. Some colleges and universities survey their graduates and their graduates' employers to assess consumer satisfaction with their product. Feedback from students and employers helps colleges, departments, and individual faculty members to redesign curriculum, improve course content, and improve services such as academic advising.

Output: Employers, Government and students, Brand Image and Academic output, Research and Patents

Outputs include people with new knowledge and abilities and research. A university provides a service to students, parents, future employers of students, and to the community. The quality of that service is the combination of specified characteristics in a product or service. Quality can be measured by the degree of a customer's satisfaction with the product and of company services and the company's ability to deliver on time. Student quality is a perception which a lecturer, institution or an institution customer might have of the output product (the output product here being the student). That perception might be positive or negative depending on the quality criteria which are being measured. The quality of education can be measured by the main stakeholders like students and employers. Output can be measured in terms of criteria such as their participation and influence in education programs, development of curriculum, classroom activities, the pedagogical ability and subject knowledge of lecturers, the amount of modern technical equipment available, suitable educational systems, social environment, physical factors such as fresh air, clean premises and absence of allergenic substances. Quality of learning, on the other hand, could be seen as a quantitative measurement of student retention, mastery and application of knowledge over a given period of time.

Success Stories Of TQM In educational Institutions:

Foreign Universities:

Oregon State University ⁴ One of the most publicized success stories is that of Oregon State University. For a number of reasons the first pilot study was conducted at OSU. First, quality was considered a high-priority issue. Second, it has high probability of success. Third, management agreed that it was important. Fourth, no one else was working on it. Fifth, it was also important to the customers of the organizations. OSU, as leader of TQM in higher education movement, has had a real success; “time has been saved, costs have been reduced, people have been empowered at all levels, and morale has skyrocketed”.

Northwest M.S.U Northwest M.S.U is another leader in TQM in higher education. It defines its success as: Enrolment is now at capacity; the budget is balanced; faculty salaries are higher than average; and about 10% of budget has been shifted from administration to instructions.

Harvard University Application of TQM at Harvard University in Office for Information Technology has resulted in a \$70,000 per year saving on software licenses from the elimination of unused or unnecessary software packages, a \$120,000 credit from reconciling reporting process, a 40% reduction in paper used for billing, a new bill format and a reduction of copy centre data entry training time from two days to one and half hours.

Edinboro University's Business School applied TQM in class scheduling and hiring. This led to a saving of close to one million dollars. The University of Pennsylvania is committed to TQM in the Wharton School MBA; curriculum has been developed using TQM principles. Moreover this University has improved the method of recouping corporate research changes and reduced charges from \$ 18 to \$ 13 million.

Indian Universities:

Indian Institute of Management (Ahmadabad)⁵ had implemented the TQM in terms of three criteria such as Quality management education, Stakeholder Approach and Guardian of Management Institutions.

Quality Management Education: It has been more than sixty years for Management Education in India. It has been revising its course based on need of industry and periodic revising and specialization according to the current trend and to focus more on research.

In State holders approach: its Report to the Working Group on Management Education formed by National Knowledge Commission (2005) states, It need to depend on developing the material on its own and not depending on other material and capacity to respond and evolve to the changing needs of the various sectors of industry .and adopting innovative pedagogy and upgrading the curriculum periodically.

Guardian of Management Institutions: - (National Knowledge Commission Report, 2005) India needs a large number of excellent institutions. The possibility of leveraging the better-rated institutions to develop the promising Management Education Entities (MEEs) needs to be explored. Each institute can adopt 3 or 4 aspirant MEEs in the region to assist them in improving levels of quality and ratings. Assistance can be in Case study development Curriculum development and delivery. Sharing of experiences through Student exchange and teaching note exchange may enhance the quality. Placements of students for both summer training and full time projects and also in pedagogy development .It can assist in finding funding agencies to enhance the required facilities for research in the institutions.

IIT - Koragpur

IIT Koragpur has adopted TQM in terms of designing the curriculum and recruitment of faculty and offering courses according to the requirement of industry and using innovating teaching pedagogy and enhancing employability among student by meeting the need of industry.

Challenges in implementation of TQM

Massy (2003) has identified “the greatest resistance to quality process improvement comes from professors who think it's just another business-oriented fad. Pratasavitskaya and Stensaker (2010) mentioned the following factors as reasons for the unsuccessful application of TQM to Higher Education: resistance to change; insufficient administration commitment; high time investment due to personal training; difficulty in applying TQM tools to the higher Education institutions environment; little experience of team leaders and staff in team-work; the concerns of Higher Education institutions have with their own results not being sufficient enough. Rosa and Amaral (2007) added that the absence of effective communication channels; the difficulty in measuring Higher Education institutions results; the co-existence of several purposes and objectives for Higher Education institutions; an emphasis in the individualism and significant degree of internal competition; the bureaucracy decision-making circuits; and the absence of a strong leadership, highly committed to the ideas and principles which are challenges to implement TQM in educational Institutions . Murad Ali (2010) has identified leadership, cultural and organizational transformation and customer identification were the major challenges in implanting TQM in education sector. Hamni Samimi et al(2012) has stated that there should be a continues training is needed on importing the skills and Knowledge on TQM and also Institutions Should locate funding agencies for such programs.

In spite of all the challenges Edward Sallis (2002) had suggested that use tacit knowledge, use appropriate tools like brainstorming, bench marking, fish bone diagram may increase the effectiveness of implementation of TQM. To be more successful the Japanese TQC with QC is more appropriate. Setsue Mito in his book “the Hand book of management” says that TQC and QC activities have proved effective in raising the morale and bringing about qualitative improvements in management wherever they are practiced anywhere in the world.

Conclusion

By providing high quality educational services, educational institutions play an important role in the development of the national economy, of the society as a whole and as individual member. Total quality in education can be achieved by establishing innovative organization with flexibility and capable adopting change according to the environment and also capable of learning. The innovative pedagogy, supportive top management, Supporting Faculty, dynamic student, supporting government and employers in designing curriculum makes the successful implementation of Total Quality Management in educational sector.

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