TQM-A NECESSITY IN INDIAN HIGHER EDUCATION
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ABSTRACT: This paper is aimed at understanding of the current higher education scenario in terms of understanding the necessity of Total Quality Management in Higher Education due to changing needs of the skilled labour market. Globalization has broken down walls and made the world a small place. In this environment, in order to survive the global competition we need to come at par to the international standards in education, which is the basis of skill development. We may be lagging behind, but this study shows that we have taken the initiative of moving in the right direction and will eventually be there with the rest of the world. We would keep our focus on the initiatives that are being taken now to effect this change.

KEYWORDS: Globalization, Total Quality Management, standard in education, Skilled labor market.

INTRODUCTION: Total Quality Management (TQM) in higher education is the focus today for gaining competitive advantage in the education market which has a promising future in terms of growth economics for times to come. TQM is a management philosophy born of behavioural science experiments by various scientists. A notable name in this arena is that of Dr. Edward Deming and his work of Plan-Do-Study-Act (PDSA) cycle based approach to develop and sustain TQM. Other pertinent international guidelines for TQM in Education are provided by ISO/IWA 2: Quality management systems - Guidelines for the application of ISO 9001:2000 in education.

Quality education is basic need for upliftment of the quality of social life of a person as one and the society itself as a whole. To understand this let us look towards the socio cultural scenario prevailing in our country itself. We see a greatly skewed image of development of various religious and ethnic social groups. The major causes attributing to this scenario can be pointed out as their lack of access to quality education and economic backwardness.

Today in the world of globalization corporatisation and commercialization it would not be irrelevant if we take the stand of viewing education as a mix of product and service industry. This brings in the inevitable question of Quality of the Product (Education) and Total Quality Management of the Industry. Talking about TQM in higher education, specialists and experienced educationists have now come to accept the fact that the end products of education do not always deliver a desirable outcome. Knowledge is not the sole parameter for employability of a candidate. When talking about producing employable graduates, we now need to talk in terms of KSA (Knowledge, Skill, and Attitude). Institutions are aware of the change in requirements of the job market but yet they do not have a proper direction or policy that would ensure deliverance of quality employable candidates to the labor market. (NAAC Handbook). Quality can be defined as a process that creates value addition and standardization of a product or a service that would enhance its sell ability in the market through enhancement of its marginal utility assuming that the buyer is aware of the true parameters of the total quality assurance of the product. To simplify the case at hand let’s look at the modified basic production process for a solution, which is Input→Process→Output→Sustainability.
Let’s apply this common theme of production to our Education system. Our education system must convert raw talent pool into professionals that have a consistent level of Knowledge, Skill and Attitude attained through the process of Total Quality Managed Education Process. Individually considering, students coming to schools, colleges and Universities are our Raw Talent Pool. They have to undergo processing in the form of successfully completing their educational curriculum (Theory and Practical). During this phase there should be regulatory mechanism to check the quality of education and training they receive and at the end of this process they emerge as skilled professionals as per the regional and global standards. Now that we have a skilled talent pool, it is pertinent that these professionals should retain their skills and update them as and when required. More importantly they should find relevance and inclusion in the society i.e. every effort should be made so as to retain this talent pool as part of our national talent base for growth and development of the nation.

OBJECTIVE:
Objective of our Study is to find Answers to the following Questions:
1. Are our Higher Education Institutions currently fulfilling the national and international demand and supply criteria?
2. How can we achieve TQM for education in these Institutions?
3. How can we maintain a consistent Quality of Education in our Institutions?
4. Does this Total Quality Management process support sustainable Quality maintenance and development?


REVIEW & FACT FINDING DISCUSSION:
Q. Are our Higher Education Institutions Currently Fulfilling the National and International Demand and Supply Criteria?

Let’s look up at some statistical data provided by MHRD, UGC and other government bodies to assess the situation (Data –Courtesy to UGC Annual Report 2013; All India Survey on Higher Education 2010-2011).(4,5):
• During the post- independence era India had only 20 Universities and 500 Colleges in the country with around 2.1 lakh students in higher education. The current data shows an increase of 37 times in the case of the Universities, 79 times in the case of Colleges and 113 times in student enrolment in the formal system of higher.
As per UGC Annual Report 2013, as of on 31.03.2014, the number of Universities had gone up to 666 universities - (45 Central, 313 States 175 State Private, 129 Deemed to be Universities, four Institutions established under State Legislation) and 39, 671 colleges in the Higher Education sector. A state wise comparison shows that Rajasthan tops the list with 61 universities, followed by Uttar Pradesh (59), followed by Tamil Nadu (51), etc. It is observed that there is uneven distribution of universities in the states.

For academic session 2013-2014, the total enrolment in all courses and levels in regular stream was 237.65 lakh including 105.52 lakh women students, constituting 44.40%. Uttar Pradesh (37.72 lakh), followed by Maharashtra (26.87 lakh), Andhra Pradesh (22.01 lakh) and Tamil Nadu (21.85 lakh), is the figure projected in 2013 UGC annual report.

The strength of the teaching faculty in universities and colleges has gone up to 10.49 lakh as compared to 9.51 lakh teachers in the previous year. Out of 10.49 lakh teachers, 82.70% teachers were in colleges and the remaining 17.30% in universities.

The number of research degrees Ph.D. awarded during 2012-2013 was 20,275. Out of this, the Faculty of Science had the highest number with 6641 Ph.D. Degrees, followed by the Faculty of Arts with 6298n Ph.D. Degrees. These two faculties together accounted for 63.81% of the total number.

The number of women students enrolled per hundred men students enrolled at all levels was 79.87 in the reporting year 2013-2014.

UGC report projects that a comprehensive programme for professional development of teachers through 66 Academic Staff Colleges (ASC) had been carried out in different disciplines. During the year under report, 309 Orientation Programmes and 792 Refresher Courses and 309 short-term courses were approved for conduction by the ASCs.

Every year, the Association of Commonwealth Universities, United Kingdom offers 80 Commonwealth Academic Staff Fellowship Awards to enable promising faculty members in Universities & Colleges in India to do research work at the Universities/Institutions in the United Kingdom. For the year 2013, the Association of Commonwealth Universities, UK, had offered 80 fellowships. Out of this, the ACU, UK, had finally selected 38 scholars for Commonwealth Academic Staff Fellowship Awards, 2013. For the same year, the ACU, UK offered 14 Commonwealth Split-Site Doctoral Scholarships for Junior Faculty or students who are studying for doctoral degree in India and want to benefit from one year full-time study in the UK. The UGC had nominated 18 scholars in 2013 and the ACU, UK, accepted one scholar under Commonwealth Split-Site Scholarships Award 2013.

The UGC annual report 2013 claims that a National Level Test (NET) is conducted twice in a year for Lectureship eligibility and Junior Research Fellowships to ensure minimum standards for entrants in teaching and research. The NET examination is being conducted in 79 subjects at 84 Centres spread across the country. On 30th June 2013 and 29th Dec., 2013 UGC NET, 5.74 lakh and 6.88 lakh candidates appeared for eligibility for Assistant Professor and out of these candidates 31, 176 (5.43%) and 24, 865 (4.67%) qualified respectively. 3.70 lakh and 3.65 lakh candidates appeared for Junior Research Fellowship and out of these candidates 4468 (1.21%) and 3749 (1.03%) qualified respectively. The CSIR, on behalf of the UGC, has been conducting NET in five Science subjects. In June 2013 and December 2013 Joint - CSIR - UGC NET, 1200
candidates qualified for the UGC-JRF in each of the tests and 2609 and 2368 candidates qualified for lectureship only.

Q. How can we Achieve TQM for Education in these Institutions?

01. People Focus: It is important to focus on both the takers (Consumers/Students) and providers (Teaching & Non-Teaching Staffs) of our educational institutions. This would create a competitive advantage for the Institution in terms of Talent Retention and evolve into a matured TQM process through fulfilment of Institution’s vision and mission.\(^{(6,7)}\)

02. Employee Involvement & Delegation of Authority: People at all levels make up an organisation and autonomy and sense of responsibility would ensure their full involvement enabling their abilities to be used for an institution’s benefit.

03. Continuous Improvement or Kaizen: Kaizen is the Japanese management technique where people strive to improve themselves on daily basis.\(^{(8)}\) A self-initiated motivation would ensure the sustained implementation of the TQM Process. Dr. Edward Deming’s work of Plan-Do-Study-Act (PDSA) cycle based approach to develop and sustain TQM can also be suggested as a good approach. It is a cyclic process of analysis of problem, implementation of a solution, study the outcome and act on the basis of the generated data on the same cyclic model.

04. Responsibility for All: A TQM leader has to learn to reduce the need for inspection by building quality into the culture of the Institution in the first place. TQM should help people in the Institution to recognize the fact that it is they who are responsible for quality work, not someone else who will check it after it is done.

05. A Sustained Top to Bottom Commitment to Quality: An organisation’s performance and culture will ultimately reflect its Head of the Institution’s values. If an organisation is serious about implementing TQM, the commitment to do so has to start at the top, and the Institution’s senior management/Board of Directors/Vice Chancellors and Head of the Departments have to be unwavering in their commitment to quality.

06. Gap Analysis: It is necessary to conduct gap analysis on regular basis to identify the lacuna within the institutional systems by use of various scientific and collaborative techniques.\(^{(9)}\) It is of utmost importance for the institution to get all its members to participate in the process. This would align the goals of the institutions and its members. This process is the basic step towards joint goal setting and management by objective, enhancing implement ability of the TQM process.

07. Total Quality Measurement: It is needed that TQM be tangible. Even though difficult, main challenge lies in the fact that TQM has to be integrated into the culture of the institution that results into an organizational value system imbibed by its members. These kind of transformational changes are slow and difficult of gauge. There should be some members of the organization who are well versed in organizational developmental strategies or if needed expert help could be sought out through organizational development Experts.
**CONCEPTUAL ARTICLE**

**08. Benchmarking:** It is about setting of standards through gap analysis, environmental scanning, and force field analysis.\(^{(10)}\) Simply spoken, it is like setting a destination for journey.

**9. Value Improvement:** It would be an evidence based approach to assess value improvement effectively. This would need generation of relevant data through rigorous data maintenance and while statistically deriving results should take care to exclude optimization errors.

**10. Training & Development:** Training is the corner stone in the development and integration of the TQM process. Factors here needs to be mentioned are training and KSA development of the Students, Teachers, other institutional members and finally Training of the trainers are important aspects that need to be taken care of.

**Q. How can we maintain a Consistent Quality of Education in our Institutions?**

There are various regulatory mechanisms and bodies today to ensure that institutions provide a uniform basic quality and that be reflected in its performance and output. Following are a few such endeavors (Data –Courtesy to UGC Annual Report 2013; All India Survey on Higher Education 2010-2011).\(^{(45)}\):

1. MHRD is the umbrella body that oversees strategic planning, decision making and implementation of various National Education programmes through various delegated bodies like NAAC, NCET, AICTE, DCI, MCI, BCI etc.\(^{(11,12)}\)
2. It is mandatory to obtain NAAC (National Assessment and Accreditation Council) Certification to avail certain benefits under UGC (University Grants Commission). NAAC exercise would improve and enhance of quality by means of self-regulation, peer review and self-imposed integrity in all spheres of activity. TQM philosophy enshrines principles, methods, work habits, systems, tools and techniques, all integrated harmoniously. TQM is but common sense which when integrated to value system of an institution becomes a powerful tool.\(^{(13)}\)

**NAAC has identified the following Seven Criteria to serve as the Basis of its Assessment Procedures:**

- b. Teaching-Learning and Evaluation.
- c. Research, Consultancy and Extension.
- d. Infrastructure and Learning Resources.
- e. Student Support and Progression.
- f. Governance, Leadership and Management.
- g. Innovations and Best Practices.

The Seven Criteria is further divided into "Key Aspects". Certain important Assessment Indicators are identified under the Key Aspects and the Seven Criteria which encompasses them, as probes or leads for the Peer Team members to capture the micro-level quality parameters:

1) The University Grants Commission in pursuit of quality and excellence in teaching and research in the Institutions of higher education has been providing substantial support to selected universities and colleges through various schemes. UGC has introduced these schemes during the IX plan period which are still continued during the X, XI & XII Plan period. The main objectives of these schemes are:
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i. To strengthen the academic and physical infrastructure for achieving excellence in teaching, research and outreach programmes;

ii. To promote flexible and effective governance;

iii. To enhance the quality of the learning and teaching process at the undergraduate and postgraduate levels with the help of a flexible credit based modular system, and the whole range of innovations currently accepted globally;

iv. To promote academic programmes relevant to the socio-economic needs of the nation;

v. To improve undergraduate education in colleges by the interfacing of the PG programmes;

vi. To promote networking with other Centres/Departments and laboratories in the country;

vii. To achieve excellence in education, training and research to face the challenge of globalization.

2) The University Grants Commission approved the report of the UGC Expert Committee on the issue of allowing students to pursue two or more degrees simultaneously on regular/distance/private/online/part time basis.

3) Amendment in the UGC Regulations on "Mandatory Assessment and Accreditation" of all Higher Educational Institutions Regulations, 2012 was approved as: "Assessment and Accreditation Agency means any agency such as the National Assessment and Accreditation Council, the National Board of Accreditation, or the National Accreditation Board, or any agency recognized by the University Grants Commission, or any agency established by an Act of Parliament to carry out accreditation".


5) The UGC on the UGC (Affiliation of colleges offering Technical Education by Universities) Regulations, 2014 and approved the Regulations, and decided to refer the Regulations to the MHRD for its approval.

6) Relaxation of 5% (i.e. from 55% to 50%) in the qualifying marks to OBC (Other Backward Castes) candidates for direct recruitment to teaching positions as well as to undertake the NET examination held by the UGC was approved.

Q. Does this Total Quality Management Process Support Sustainable Quality Maintenance and Development?

Various Steps to Ensure Sustainability of Quality can be taken which may be listed as below:

1) Finding means to continuous learning process. Learning is a continuous process where there is need for systematic upgradation of knowledge and skill sets and a requirement for systematic unlearning. Institutions and organizations should rigorously implement a fair and transparent performance appraisal system and regularly conduct a training needs analysis to bridge these deficiencies. Today e-learning and various distance learning portals have become a key solution to these issues.

A very pertinent example of integration of TQM philosophy in organizational culture that has led to organizational turnaround in recent times is reflected in the success story of SBI (Ref:
Remaking a government-owned giant: An interview with the chairman of the State Bank of India McKinsey & Company).[14]

2) For professionals in the unorganised sector, government should lay down regulations for promoting continued education and knowledge and skill up-dating. Let us take example of health professionals. There is a high quality gap between the providers of education and training in this sector and often we find zero knowledge and skill up-dating among private doctors. The sinking in of the thought that it concerns so many valuable lives is grim with doctor patient ratio in India being as low as 0.7 as stated by word bank.[15]

3) Brain Drain needs to be stopped for national development. There are various causes and retention of Talent Pool is one of the major challenges today. Opportunity for talented people needs to be created and a culture to recognise their efforts is needed. This would mean a rigorous control over corruption at all levels of our society.

4) Evidence based research and un-manipulated data collection for finding true results is necessary. Take for example the number of government to private medical colleges in India, ratio of their costs of education, ratio of exposures to case based trainings in these colleges, ratio of concentration of these professionals in urban to rural sectors and finding a longitudinal trend, actual treatment cost ratios for government and corporate hospitals in respect to the difference in quality of treatment are questions that would become difficult to answer when we talk of evidence based research.

5) Academic Staff Colleges have now become more active and are being allowed more scope for innovation through UGC’s new regulations. It has been made compulsory for promotion to Associate Professorship that a candidate compulsorily has 2 orientation course sessions and a refresher course session at least. These courses are designed to expressly enhance the teaching techniques and quality of teaching of our teaching community in higher education.

6) Deming’s PDSA is a good method for maintaining sustainability of TQM.[16]

7) Putting up stricter quality control in recruitment of teaching staff following APA credit system for sorting out best candidates and qualification of NET (National Eligibility Test) as mandatory for Assistant Professorship and B Ed compulsory qualification for school teachers.

8) The UGC approved the roll-out plan, percentage caps of API cumulative score and modification in the tenure of College Principals in UGC (Minimum qualifications for appointment of teachers, other academic staff in universities and colleges and other measures for the maintenance of standards in higher education) Regulations, 2010 and its 2nd amendment with modifications.

9) The UGC has approved a Grant of Raman Post-Doctoral Fellowship to selected Teachers from institutions not under the ambit of 2 (f) & 12B on a one-time basis.

CONCLUSION: We are at a budding stage of the education industry that requires careful nurturing through Quality control that has both absolute and relative connotations. So there is a big quality gap in delivery of our education system and the international systems of education in the developed countries. A careful observation of the international standards followed in education (ISO/IWA 2: Quality management systems - Guidelines for the application of ISO 9001:2000 in education) can help us understand the lacuna in our system.[17] Through systematic implementation & integration of TQM process in our education system we will eventually get there.

So it becomes critical to identify the relative norms for different components of a higher education system. A top to bottom shift in focus is being observed that is relevant for the deliverance
of quality labor pool and active policy shift in part of government is an indication of unfreezing of the education body with indication towards movement in the right direction.

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