Total Quality Management: Higher Education in India

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ABSTRACT

TQM in higher education has now become the major concern of education in the 21st century. TQM can help a school or college provide better service to its primary customers—students and employer’s. The continuous improvement focus of TQM is a fundamental way of fulfilling the accountability requirements common to education reform. The quality of education is judged by kind of humans it produces, and takes quality as a holistic concept. The two hidden dimensions of TQM are total quality and quality management. Here the basic tenets of TQM have been minutely examined by expressing views of Deming, Crosby, Juran, Saylor, Yudof and Busch Vishnian etc., who did pioneering work in establishing the significance of TQM.

TQM CONCEPT

Although the concept of quality is very old, today it is perhaps the major preoccupation of organizations worldwide. However, in the recent years, Total Quality Management (TQM) has captured the world-wide attention and is being adopted as a many organizations, both profit and non-profit. TQM is being accepted as a management philosophy. Many organizations around the globe are conducting Organizational Development (OD). Programmers to enhance quality awareness and change the attitudes of their employees. These efforts towards understanding, adopting and promoting TQM are primarily because of the changes taking place in the global economy, changing market conditions and customer’s expectations and increasing competitive pressures. Many large organizations have recognized the important contributions that TQM can make in dealing with these challenges.

Quality of education is a multi-dimensional concept, with varying conceptualizations. It includes, within its ambit, the quality of inputs in the form of students, faculty, support staff and the infrastructure: the quality of processes in the form of learning and teaching activity: and the quality of outputs in the form of the enlightened students who move out of the system (Sanney, Karunes and Banwet, 2001). Quality control is an effective system of ensuring quality, ensuring continuing excellence. Total Quality Management (TQM) is a modern term wider in scope than the total quality control (TQC). TQC considers the role of employees in improving the productivity. But it remains silent about the quality of work life, employee satisfaction and organizational development. TQM, however, is a holistic view and takes into its fold not only ensuring productivity and efficiency but also ensuring individual satisfaction and institutional building and human well being. TQM is not merely preventive, it is pro-active.

What is Quality?

Quality is generally defined as conformance to requirements. It is also conformance to a standard that is required. However, many consider that quality need not just be conformance to requirements but should be an assurance of being the best in the world of that type. In addition, it should also keep a constancy of purpose.

What is Total Quality?

Total quality refers not only to the product but also to the way the product is made as well as presented to the customer. Total quality asks for customer orientation, process orientation, people management and leadership. All these are continuous processes.

What is TQM?

TQM is a people driven process. It involves changes in people’s attitudes primarily. In addition, it deals with process orientation and continuous improvement of the process. It strives for empowerment and autonomy of the people involved in using processes of production. It asks people to continuously look for new ways to adapt to the changing environment. It is a continuous improvement plan, with an effort to bring out the best for the stakeholders as well as for the institution.

HIGHER EDUCATION

In a society full of miscellany, thoughts and beliefs, higher education means diverse things to dissimilar people. The pluralism of views is quite unavoidable and some would opine it should be like that only. According Barnett (1992) there are four predominant concepts of higher education:

- Higher education as the production of qualified human resources. In this view, higher education is seen as a process in which the students are counted as “products” absorbed in the labor market. Thus, higher education becomes input to the growth and development of business and industry.

- Higher education as training for a research career. In this view, higher education is preparation for qualified scientists and researchers who would continuously develop the frontiers of knowledge. Quality within this viewpoint is more about research publications and
transmission of the academic rigor to do quality research.

✓ Higher education as the efficient management of teaching provision. Many strongly believe that teaching is the core of educational institutions. Thus, higher education institutions focus on efficient management of teaching-learning provisions by improving the quality of teaching, enabling a higher completion rate among the students.

✓ Higher education as a matter of extending life chances. In this view, higher education is seen as an opportunity to participate in the development process of the individual through a flexible, continuing education mode.

CURRENT STATUS

India possesses a highly developed higher education system which offers facility of education and training in almost all aspects of human creative and intellectual endeavors: arts and humanities; natural, mathematical and social sciences, engineering; medicine; dentistry; agriculture; education; law; commerce and management; music and performing arts; national and foreign languages; culture; communications etc. The institutional framework consists of Universities established by an Act of Parliament (Central Universities) or of a State Legislature (State Universities), Deemed Universities (institutions which have been accorded the status of a University with authority to award their own degrees through central government notification), Institutes of National Importance (prestigious institutions awarded the said status by Parliament), Institutions established State Legislative Act and colleges affiliated to the University (both government-aided and –unaided) As on 31.3.2006, there were 367 University level institutions including 20 Central Universities, 217 State Universities, 104 Deemed Universities and 5 institutions established under State Legislation, 13 Institutes of National Importance established under Central legislation and 6 Private Universities. There were 18,064 degree and post-graduate colleges (including around 1902 women’s colleges), of which 14,400 came under the purview of the University Grant Commission, the rest were professional colleges under the purview of the Central Government or other statutory bodies like the AICTE, ICAR, MCI etc. Of the Colleges under UGC purview 6109 have been recognized by the University Grants Commission (UGC) under Section 2(f) and 5525 under Section 12(B) of the UGC Act, which recognition permits them to receive grants from the UGC. In 2006-07, an estimated 13.93 million students were enrolled in the institutions of Higher Education as against 10.48 million in the previous year and the faculty strength was 0.488 million as compared to 0.472 m in the previous year. The enrolment of women students at the beginning of the academic year 2006-07 was 4.466 million, constituting 40.40 per cent of the total enrolment. Of the total women enrolment, only 12.35 per cent women have been enrolled in professional courses and the rest in non-professional courses. The women enrolment is the highest in Kerala (66.00 per cent) and lowest in Bihar (24.52 per cent) in terms of percentage enrolment to total enrolment.

Table I. SWOT Analysis of an Educational Institution

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
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<tbody>
<tr>
<td>Enthusiastic management team</td>
<td>Old buildings in poor condition.</td>
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<tr>
<td>Excellent examination results</td>
<td>High average age of staff</td>
</tr>
<tr>
<td>Strong departments</td>
<td>Inadequate budget</td>
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<tr>
<td>Strong parental support</td>
<td>Lack of playgrounds</td>
</tr>
<tr>
<td>Good staff morale</td>
<td>Inadequate sports facilities</td>
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<tr>
<td>Good support from the Government.</td>
<td>Inadequate library</td>
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<td></td>
<td>No feeder schools</td>
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<tr>
<th>Opportunities</th>
<th>Threats</th>
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<tbody>
<tr>
<td>Merger with local institutions with an excellent infrastructure but mediocre reputation.</td>
<td>Loss of identity, strengths and reputation.</td>
</tr>
<tr>
<td>Develop reputation in sports.</td>
<td>Risk of losing experienced teachers who may take up early retirement or move to other institutions.</td>
</tr>
<tr>
<td>The excitement of establishing a new institution.</td>
<td>The ethos of another institution, in case of a merger, may change existing culture.</td>
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<td>The opportunity to enlarge staff expertise in order to increase the range of activities.</td>
<td>Large numbers that may make handling unwieldy.</td>
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<tr>
<td>Willingness of the faculty to undergo training and development.</td>
<td>Unforeseen changes in work ethics due to cross cultural behavior.</td>
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<td>Possibility of help from old students.</td>
<td>Pressure for admissions from locals.</td>
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SOME RECENT POLICY INITIATIVES BY THE GOVERNMENT FOR HIGHER EDUCATION

✓ Prime Minister’s speech on 15th August 2007 announcing Government’s decision to establish many centrally funded high level institutions and help states to establish degree colleges in districts having poor enrolment.

✓ National Development Council’s approval to increase XIth Plan allocation to UGC by four fold compared to the Xth Plan allocation.

✓ Prime Minister Speech inviting active public – private partnership while dedicating the Bharti School of Telecommunications Technology and Management at IIT Delhi, and promising liberalizing rules and procedures to make the partnership effective.
Finance Minister’s allotment of an additional INR1000 million each to Universities of Mumbai, Kolkata, Chennai and the Punjab Agricultural University to make them world class.

Finance Minister’s allotment of an additional INR1000 million to Indian Institute of Science, Bangalore to become a world level university.

Setting up of a Knowledge Commission.

Draft National Biotechnology Plan.

Liberal grant of Autonomy-Deemed University Status to IITs, NITs.

CHALLENGES IN TQM IMPLEMENTATION IN HIGHER EDUCATIONAL INSTITUTIONS

According to Srivanci (2004) critical issues in implementing TQM in higher education includes leadership, customer identification, cultural and organizational transformation. Unlike business organizations, chancellors and heads of higher educational institution do not enjoy ultimate authority in hiring and firing of personnel and allocating resources. Lack of necessary authority makes it difficult to deploy their values and goals through layers of higher education institutions. Deep rooted traditions dating back to centuries, a rigid departmental model, inter departmental competition for resources, lack of market focus are the cultural and organizational reasons that makes it difficult to tune in with TQM transformation. Ambiguity in customer identification also creates hurdles in TQM implementation. Among the main groups within the higher education institutions—there is not much agreement on which the customers are. While most administrators tend to perceive students as customers of faculty in classrooms, many faculty staff resent this metaphor as being too commercial. Without a well-defined customer and a customer focus, quality efforts may be easily diffused.

Owlia and Aspinwall (1997) concludes that customer orientation is a more problematic principle of TQM when applied to universities because of special nature of many academics whose motivation to work is often independent of market issues. The effectiveness of leadership is adversely affected by individualism among academic staff and due to absence of team working.

Impact of TQM in higher education is small due to organizational inertia to change, failure to focus on important questions, non receptive of academic culture to TQM (Koch, 2003) While higher education institutions are home for learning and create knowledge through their research function, it is ironic that they have been lagging behind other organizations in embracing and implementing TQM.

This inertia is due to structural and traditional characteristics of higher educational institutions. There are some other special challenges that are not encountered in other organizations. These include:

1. **Leadership**: Unlike CEO’s of business organizations, Vice Chancellors/Directors of Universities/Institutions do not enjoy ultimate authority hiring and firing personnel and allocating resources. Institutional heads can set goals, organizational values and performance expectations. However since they lack necessary authority, it is difficult for them to deploy these values and goals through the layers of higher education institutions.

2. **Cultural and Organizational transformation**: Many business organizations have adopted TQM and transformed their institution’s culture into a total quality culture that involves elements such as teamwork, employee participation, customer and market focus etc. However higher education institutions have deep-rooted traditions dating back to several centuries and are resistance to change, e.g. Universities and colleges are organized on departmental units. In adopting TQM culture, organizations move from product focus to market focus. But for faculty, particularly research faculty, primary loyalty lies in the academic field. Market requirement for their students are of secondary importance to them except for some professional schools as business and engineering. In business organizations there is cross linkage and well communication between the various functional departments. But in the case of higher educational institutions, most of the individual departments operate in vacuum. This is one reason that interdisciplinary study and research is a rarity.

3. **Customer Identification**: A different aspect of customer issue here is customer loyalty. In businesses, customer loyalty is very important because repeat buying by loyal customers’ has a direct effect on profitability. However higher education is “once in a lifetime activity”. If students are considered as customers, this concept makes sense only when they make donations as alumni. However if employers are customers, repeat purchase means recruiting at same institutions every year.

QUALITY IN HIGHER EDUCATION

Quality means the ability of a product or service to deliver its function. Quality does not apply only to the product or service itself; it also applies to the people, processes and organizational environment associated with it. For instance the quality of an institution is judged not only by the quality of faculty, staff and course offerings but also by the efficiency and accuracy of processing paper work. Quality means performance, reliability, durability, service ability, tangible factors, consistency, responsiveness to students’ needs/friendliness, timeliness, atmosphere. Juran (1989) defined quality as ‘fitness for purpose’. According to him, a product or service can meet its specification and yet not be fit for its purpose. The specification may be faulty and thus the specification should be what the customer wants. The British Standard Institution (BSI) (1991) defines quality as “the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs”. Quality is an attribute which can be seen or observed when no one is watching you.
A quality education depends on what your objectives are and what you are going to do with the education. For example, a quality education will differ depending on whether you want to get a management position at a small business or a Ph.D. in philosophy. Defining a quality education depends on the stake you have in the institution that provides the education, whether you are a professor, student, administrator, or a company that hires students and graduates. In addition, a definition of a quality education must recognize that any education is a part of a system (Stoner et al., 2008). Quality of higher education completely depends on the quality of faculty and the quality of the students’ support system. In simple words quality is 100% purity of knowledge acquired by faculty and standards set up by the higher education institution to transform the present state of knowledge of the students’ community to face upcoming challenges effectively and efficiently. Quality management in higher education sector consists of quality assurance, quality control and quality improvements. The term quality management has been using by higher education institutes towards overall development of education system.

The Indian Higher Education system is in a constant state of change and flux due to the increasing needs of expanding access to higher education, impact of technology on the delivery of education, increasing private participation and the impact of globalization. After careful consideration of these, National Assessment and Accreditation Council (2004) has developed the following five core values which were mentioned in NAAC (2004) document on Guidelines for Re-Accreditation. These five core values are: contributing to national development, fostering global competencies among students, inculcating a value system in students and promoting the use of technology and quest for excellence. Brilliance in all that they do will put in to the overall progress of the system of higher education. The seven criteria developed by NAAC to measure excellence are in fact the main processes for developing the capabilities of an institution. The seven criteria are: curricular aspects; teaching, learning and evaluation; research, consultancy and extension; infrastructure and learning resources; student support and progression; governance and leadership; and innovative practices. Establishment of an Internal Quality Assurance Cell (IQAC) in each of the Higher Education Institution would help develop and raise their capabilities as institutions.

With an intension to monitor and improve the institution’s internal quality in all the above mentioned seven criteria given by NAAC, establishment of Internal Quality Assurance Cell (IQAC) is imperative. The Internal Quality Assurance Cell (IQAC) being promoted by NAAC has the task building on the benefits of self study process. The IQAC is to make the internal quality checks and robust functioning in upgrading of the specific areas viz., curriculum design and development, teaching, learning and evaluation process; research and consultancy; infrastructure development which are essential to get a prominent response from NAAC. The NAAC also has an effective and efficient internal coordinating and monitoring mechanism which is closely monitors the IQAC’s efforts in improving the quality of education in the respective education institution. As per NAAC guidelines, establishment of IQAC in every higher education institution who is planning to get NAAC grading is an imperative task to continuously monitor the quality of education. Quality assurance is the core responsibility of everyone in an educational institution, though the think-tank of the institution sets the policies and priorities. Hence, assuring quality should be an incessant and enduring process in delivering the best services in any higher education institution. It should not be mull over as a onetime activity for accreditation along. Here, IQAC has to take up the responsibility to maintain consistency in delivery of quality educational services to the students’ community by frequent monitoring of all the quality dimensions in higher education viz., various tangibles, competence of academic staff, attitudinal displays of all the staff in the institution, relevance of content and its delivery, and reliability in every aspect. Total Quality Management (TQM) based model that helps to create a world-class higher education system for performance excellence and global leadership. TQM is a guide to continuous improvement. If we have been adopting TQM as an integrated philosophy in higher education systems helps to improve the quality at each and every level. Effective implementation of TQM definitely requires sufficient and proper time because ever growing number of students, increasing competitions, access to education through distance mode, easy accessibility to Internet, inadequate involvement of students in learning, lack of proper communication among faculty, staff and students, lack of accountability and TQM is management approach or strategy aimed at embedding awareness of quality in all higher education institutions processes, on which higher education institution must strive to continuously improve these processes by incorporating the knowledge and expertise of students.

### PROBLEM FOR TQM IN HIGHER EDUCATION

Higher education has made great progress, but because of certain problems it cannot be said to be encouraging and satisfactory. They are

1. Dearth of faculty
2. Low quality research
3. Administrative difficulties
4. Deterioration of values
5. In genuine courts
6. Lack of academic staff
7. Defective curriculum and examination system
8. Lack of flexibility in higher education
9. Low confidence level of students
10. Fear of failure and psychological barriers practice
11. Lack of strategic planning
12. Lack of qualitative and quantitative infrastructure
13. Lack of cooperation among colleagues

### IMPLEMENTATION OF TQM

The implementation of total quality management at Oregon State (osu) was based on an extensive review of various approaches. Their model was most closely associated with the HOSHIN PLANNING MODEL used by HEWLETT-PACKARD. The Baldrige Award criteria were used to develop a five year plan. The implementation of each phase was described in a July 1990 report.

**Phase-1: Exploring TQM:** Companies with TQM programs were visited. Dr. Deming also met with them. A number of books and articles on TQM were read. The president and two top managers attended a class on seven total quality tools,

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taught by Hewlett-Packard. Excitement about total quality was generated; potential resistance, particularly from the academic side, was recognized.

Phase-2: Initial pilot Team: A total quality team was formed in physical plant to apply total quality processes on the small scale. The issue of turnaround time in remodeling projects was addressed. The pilot was very successful, and results included shortening the remodeling process by ten percent, improved customer relations, and improved attitudes and behaviors of workers and managers.

Phase-3: Defining customer needs through quality function deployment: ‘Customers were identified and three customers’ surveys were conducted: an image survey, an admitted student’s survey, and faculty survey, based on results, a cross-functional marketing committee was created to examine OSU’s image and the products it delivers. Potential problems were acknowledged: Total commitment to developing, customer-driven system will not come easily.’

Phase-4: Top management breakthrough planning: Five major identified for this phase: 1) Clarification of the mission 2) Clarification of the customers 3) Identification of the critical process of university 4) Development of the university vision, 6) Identification of priority breakthrough items.

Phase-5: Divisions do breakthrough planning: Finance and administration initiated its five steps, resulting in the implementation of total quality management throughout this division.

Phase-6: Form daily management teams: ‘Teams are at very heart of TQM works teams were formed typically led by the supervisor. The teams addressed processes that could be improved by resources controlled by team. Roles were identified, and a ten step problem solving process was used. Ten teams were initially created, all of which were in finance and administration. It was estimated that 400 teams would be required for full implementation of total quality management at OSU’

Phase-7: Cross-functional pilot projects: Processes and problems usually cross work unit boundaries, and cross – functional coordination is needed. The pilot cross-functional teams were composed of the division directors in finance and administration, who selected improvement of the total quality implementation process as their issue.

Phase-8: Cross functional management: Cross functional management was recognized as the areas in which the greatest process improvement would occur because the university operated with committees that crossed departmental lines, existing committees were provided with training in total quality processes; daily management and tools and techniques of total quality were key items.

Phase-9: Reporting, Recognition, and Award: Feedback through regular reports is important in the total quality implementation process, monthly reports were sent to the vice-president for finance and administration, focusing on the performance measures. The improvements were reviewed annually with each division director, and goals for the coming year were established. Salary increases were based on measurable improvements.

CONCLUSION

The development of higher education requires increase funds and even more for its maintenance. The World Bank document (1994) states, “The development of higher education is correlated with the economic development. Enrolment ratios in higher education average 51% in the countries that belong to OECD, compared with 21% in middle-income countries and 6% in low-income countries”. Therefore, the first and foremost task for any nation is to expand its higher education system further in a planned way so as to cover as large a portion of the eligible age group as possible.

SUGGESTIONS FOR TQM IN HIGHER EDUCATION

Establish quality circle and healthy practices in institutions. Focus on need and resource based research and innovation. Create oyabun -kabun relationship between institutions and alumni. Focus on proper needs of market. Achieve top quality performance in all areas. Produce system for achieving quality performance. Develop measure of achievement. Help institutions to become competitive. Develop team approaches. Improve communication. Reward outstanding achievement.

REFERENCES


