TQM IN HIGHER EDUCATION – A CONCEPTUAL MODEL TO ACHIEVE EXCELLENCE IN MANAGEMENT EDUCATION

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ABSTRACT

Total Quality Management has become a key management tool that is currently driving today’s industry. TQM has been successfully applied in multinational firms/organizations. Institutions of higher learning have now begun to reexamine the educational process and the application of TQM principles in academia. In management education course like MBA, where many concepts like management, leadership, TQM are taught to the students, the possibility of knowing how to apply the concepts is less in many institutions. It is very unfortunate that the place where TQM is taught it is not practiced. When it is not practiced the learning process is at stake.

TQM in higher education is a process that involves the institutions adopting a total quality approach to the entire academic process and environment (i.e. attempting to improve the quality of instruction and in the process, the students’ meaningful learning in every possible way) so that the needs of the students and those of their employers are best served. It is the never ending pursuit of continuous improvement in the quality of education provided to the students and the satisfaction of the other stakeholders.

This paper attempts to apply the TQM concept in higher education and highlights the dimensions of quality in education. The benefits and the challenges of implementing TQM in higher education are discussed in detail. A simple diagrammatic representation guides us from using TQM from industry to education. A conceptual model for applying TQM in MBA is given with
descriptions. The paper ends with a brief discussion and conclusion that stress on applying TQM in higher education and MBA in particular since it involves interaction and the satisfaction of the stakeholders their by contributing to the enhancement of quality of education.

**Keywords:** Total Quality Management (TQM), Higher Education, Management Education, TQM in Education

**INTRODUCTION**

In today’s knowledge economy, human capital is recognised as the most important asset of business and nation as a whole to develop and prosper. It acts as a differentiator with the competitors in the market. Higher Education and Management Education in particular is about developing the human capital by sharpening their business acumen under the controlled environment. Corporates capitalise on these skill sets that are honed in a business school and add their experiences to shape the future managers.

**BACKGROUND OF THE STUDY**

Fostering excellence and applying quality in higher education presents a range of challenges. The present scenario and the economic slowdown have posted serious questions on the quality of higher education in India especially management education that stands at the crossroad. Management education was a popular choice because of its interdisciplinary nature and with admission to the course open to all categories of graduates. The growing number of Business schools in every corner of the country has made Management Education available to everyone who aspires for it. This growth has in fact far exceeded the demand of the industry in the last few years, thereby making Management Education especially Master of Business Administration (MBA) as one of the most preferred PG degree attracting tens and thousands of students every year till the end of last decade. The present scenario is pretty demanding as the business schools are facing severe challenges that questions their survival and future growth.

**PROBLEM DEFINITION**

Decreasing quality in higher educational institution is a cause of concern for all those concerned with the field of education. Educational institutions without proper academic support and infrastructure quality produce low quality of students who will not be able to contribute to the nation in the long run. The problem is more pronounced as the numbers of educational institutions are increasing every year. Thus this article tries to focus on implementation of quality initiatives that should be given paramount importance, which will further help in strengthening the overall brand of the management institutions.

It is evident now that we need to improve the quality in all dimensions of the institutions to completely overhaul the system. This will only help in providing better educational quality for student’s and at the same time attract more students from home and abroad. The study uses analytical descriptive approach which is based on analysis of the literature and administrative thought in the area of TQM for management education institutions and supports the implementation of TQM.
concepts as well. This research paper tries to focus on implementing Total Quality Management in a business management institute which can make it competitive in the long run.

PURPOSE OF THE STUDY

Although the issue of quality has been given considerable attention in industry/commerce, quality in higher education is underdeveloped as a concept. This paper offers an explanation which may help those with an interest in the management of quality systems and the evaluation of educational programs. There is still no consensus on how best to measure and manage quality within higher education institutions, in spite of many approaches and models have been adopted, because quality is dependent process and the success of any process is dependent on how others are working well, it's more effective to judge quality through a systematic assessment. Correctly managing and implementing the TQM concepts and indicators is one of such measures, which will go a long way in revolutionizing management education in India. Thus, through this study the researchers hope to achieve the following objectives:

1. Total Quality Management standards and indicators will impact and improve the quality of Management Institutions.
2. Identify the challenges in TQM implementation in Management Institutions.

LITERATURE REVIEW

A review of the literature shows that quality and TQM in higher education has been given different interpretations arising out of different perspectives adopted in the studies.

Srivanci (2004) TQM in a classroom setting is a philosophy and a set of guiding principles and practices the teachers apply to teaching that represents the foundation for continuous learning and improvement on the part of the students and the teachers. It is the application of procedures related to instruction that improves the quality of education provided to the students and the degree to which the needs of the students and their employers are met, now and in the future. Quality of an institute may depend on its infrastructure, industry-institute interaction, research activities and so on (Mallesham, 2005). It involves meeting pre-determined objectives, giving value for money (Harvey and Green, 1993) encompassing input, process and output (Sahney 2004). Here, input includes students, faculty, infrastructure and staff; process is in the form of teaching and learning while employment, exam results, satisfaction constitute output.

It has been difficult to define the concept of quality (Parasuraman, 1985). It may be considered as the fitness for use and conformance to requirements (Terziovski and Dean, 1998). According to Parasuraman (1985, 1988) it refers to how well the service meets or exceeds the customers' expectations. However, Ovretveit (1993), on the other hand, argues that service is not only about customer perception but it includes the internal management process or "functional process" as well.

Differences in meaning of quality in education have led researchers to measure it by employing different methods (Tam, 2001). Some have used total quality management (TQM) for school and higher education (Kanji and Tambi, 1999; Barnard, 1999) while others have used the SERVQUAL scale (Chua, 2004; Tan and Kek, 2004; Mahapatra and Khan, 2007; Aghamolaei and Zare, 2008). Educational institutions embracing TQM have adopted quality practices such as

In the words of Sallis (2002), Quality is at the top of most agendas and improving quality is probably the most important task facing an institution. However, despite its importance many people find quality an enigmatic concept. It is perplexing to define and often difficult to measure, no two experts ever come to the same conclusion when discussing what makes a good school, college, or university.

Quality in higher education may even be more difficult to define than in most other sectors. Frazer (1994) argues that a first important step would be to agree internationally on terms such as levels, standards, effectiveness and efficiency. Such agreement on basic factors is also an objective for the so-called “Bologna process” of integration currently taking place in Europe.

Martens and Presser (1998) emphasise the importance of quality learning, which should be focused on meaning and not on reproduction. Ramsden (1992) underlines that the vital competence in academic disciplines consists in understanding the way in which students apprehend and discern phenomena related to the subject.

The literature on quality in higher education is more voluminous than one would expect, partly because, terms like quality, accountability, and assessment are used somewhat interchangeably (Ewell, 1993). Quality is a process or a manner of thinking whereby organizational participants implicitly view their work as valuable, measurable, and able to be improved. The resource view holds that the quality of an institution of higher education can be determined by assessing its internal resources: the number of books in its library, the number of faculty with terminal degrees, size of the endowment, reputation, etc.

However, internal symbols of quality were no longer the most legitimate measures of satisfaction demanded by an increasingly sophisticated higher education consumer. “It has become evident that students, the primary customers of the institution, need and want more than library books and an impressive set of faculty degrees enumerated at the end of the college catalog” (Seymour, 1992).

Astin, (1991) After a long entrenchment in old ways of thinking (namely, the resource view of quality), some institutions had begun to embrace a performance view of excellence in education; motivated by competition, costs, accountability, and a service orientation. This means that the quality of an institution of higher education is determined by its outputs – efficient use of resources, producing uniquely educated, highly satisfied and employable graduates, for example. This view is popularly termed the value added approach to determining quality in higher education. This approach stresses agreeing upon, teaching, and measuring a set of student competencies that should be gained through a baccalaureate education (Bennett, 2001).

Jagdish (2001) Increased competition and consumer choice are the biggest catalysts to adopting the customer orientation in higher education. Academic leaders especially should consider the context of quality and assessment as more than an account of things, past or present, but as a guide to planning, leading, and ultimately assessing future calls for reform. Most important are the lessons higher education can learn from the quality and assessment movement in industry: inspiring more responsible leadership, student centeredness, continuous improvement, transparency, global, political, and economic accountability.

Sakthivel (2005) developed a TQM model of academic excellence and empirically establish a relationship between TQM implementation and students’ satisfaction of academic performance.
The result found there is a relationship between the five TQM constructs namely commitment of top management; course delivery; campus facilities; courtesy; customer feedback and improvement and students’ satisfaction of academic performance has been established.

APPLYING QUALITY IN HIGHER EDUCATION

Quality concept can be applied in education scenario based on the philosophy of W. Edwards Deming (2000). Deming’s work is not merely about productivity and quality control; it is a broad vision on the nature of organizations and how organizations should be changed. When educators look at TQM principles, they assume that the model applies only to profit-making organizations. Actually, TQM applies as well to corporations, service organizations, universities, and elementary and secondary schools. The concepts formulated by TQM founder, W. Edwards Deming, provides a framework that can integrate many positive developments in education, such as teaching, academic management, cooperative learning, and outcomes-based education.

The problem is that words like learning and curriculum are not found in Deming’s 14 principles. Some of Deming’s terminology needs to be translated to schools as well. For example, superintendents and principals can be considered management. Teachers are employers or managers of students. Students are employees, and the knowledge they acquire is the product. Parents and society are the customers. With these translations made, we can see many applications to schools.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Definition in Higher education</th>
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<tbody>
<tr>
<td>Performance</td>
<td>Primary Knowledge / Skills required for graduates</td>
</tr>
<tr>
<td>Features</td>
<td>Secondary / Supplementary knowledge and skills</td>
</tr>
<tr>
<td>Reliability</td>
<td>The extent to which the knowledge &amp; skills learnt is Correct, Accurate and Up to date</td>
</tr>
<tr>
<td>Conformance</td>
<td>The degree to which an institution’s programme/course Meets established standards, plans and promises</td>
</tr>
<tr>
<td>Durability</td>
<td>Depth of Learning</td>
</tr>
<tr>
<td>Serviceability</td>
<td>How well an institution handles customers’ complains?</td>
</tr>
</tbody>
</table>

Source: Owlia and Aspinwall (1996)

Service quality in higher education should be assessed according to the perceptions of students (Aldridge and Rowley, 1998). The development of intellectual skills and knowledge that will equip graduates to contribute to society through productive and satisfying engineering careers as innovators, decision makers and leaders in the global economy (R. Natrajan, 1999). The ability of a product to satisfy the requirements of the customer (Roma Mitra, 2007) and quality in engineering education is an open system at various levels i.e. students, teachers, curriculum, institutional and state level (Kulkarni P.,1999).
DIMENSIONS OF QUALITY IN HIGHER EDUCATION

FITNESS OF PURPOSE
Fulfilling a customer's requirements, needs or desires, evaluates whether the quality-related intentions of an organization are adequate. In education, fitness of purpose is usually based on the ability of an institution to fulfill its mission or a program of study to fulfill its aims.

VALUE OF MONEY
Return on investment. If the same outcome can be achieved at a lower cost, or a better outcome can be achieved at the same cost, then the customer has a quality product or service. The growing tendency for governments to require accountability from higher education reflects a value–for–money approach. Increasingly students require value–for–money for the increasing cost to them of higher education. The demand for higher education is also influenced by the ability of the customers in terms of their ability to pay.

TRANSFORMATION
It is the process of changing from one qualitative state to another. In educational terms, it refers to the enhancement and empowerment of students or the development of new knowledge.

EXCELLENCE
The degree of excellence of the entire educational experience. The quality of student's life; the adequacy of university or college finances; the breadth and modes of learning offered; and student access to tenured faculty.

TOTAL QUALITY MANAGEMENT (TQM)
According to Witcher (1990) TQM is composed of three terms:

Total: meaning that every person is involved including customer and suppliers,
Quality: implying that customer requirements are met in accordance to specification.
Management: indicating that senior executives are committed.

TQM may also be seen as; doing things right for the first time, striving for continuous improvement, fulfilling customers’ needs, making quality the responsibility of every employee.

The review indicates that a range of quality management models developed for industry have been adopted or tested within HE institutions on a global basis. Internationally, the tool most frequently drawn up is Total Quality Management (TQM) (Cruickshank, 2003), defined as: a management approach of an organization, catered on quality, based on the participation of all its members and aiming at long run resources through customer satisfaction and benefits to all members of the organization and to society (Wicklund et al., 2003, 99).

Total Quality Management (TQM) is inevitably common factor that will shape the strategies of higher education institutions in their attempt to satisfy various stakeholders including students, parents, industry and society as a whole (Ali and Shastri, 2010). The concept of (TQM) management philosophy modern based on a number of concepts of modern management directed that it is based on combining means basic administrative and innovative efforts and the specialized technical skills
in order to improve the level of performance and improvement and development ongoing (Al-Khatib, 1999).

PLACE AND ACCOUNTABILITY

The location of institution is also determining factor of choice of higher education. In general students prefer institutions located in closer vicinity of their cities or towns.

DELIVERY MECHANISM

Students also look at the mode of acquiring education in terms of accessibility and price. Generally the preference is given to full time courses. But part time learning, distance learning, correspondence learning, e–learning has proved to be a boon to those who cannot go for full time education, especially those in organized employed sector.

TANGIBLE ELEMENTS & PHYSICAL EVIDENCE

Tangibility is related to the facilities, equipment, material and people, representing the material aspects of supplying, being perceived by the five human senses, such as visiting cards, pages on the internet, printed materials, billing documents, etc. physical evidence refers to types of services, infrastructures, and facilities often serve as a major attraction to the end user. It could be external as parking, landscaping, surroundings, external architecture, accommodation, offices, cafeteria, clinics, gymnasium and good ambience in general, and internal such as internal architecture, equipment, air quality, temperature, layout, quality classrooms and equipment, etc.

RAISING AWARENESS

All the above factors will be futile if they are not properly communicated to the stakeholders. Advertisements in the print and electronic media are being restored to for this purpose apart from official communication to the stakeholders. Institutions are also resorting to promotional methods including educational fairs to facilitate better reach amongst the stakeholders (Ali and Shastri, 2010). The goal is to find solutions for our future aims to establish a dialogue with abroad people especially with opinion leaders and decision makers to increase public understanding of the ways in which institutions serve the society, and demonstrate why public investment in higher education benefit to everyone. Colleges and universities contribute by preparing and

BENEFITS OF TQM TO HIGHER EDUCATION INSTITUTIONS

Adoption of TQM will help institutions of higher education maintain their competitiveness, eliminate inefficiencies in the organization, help focus on the market needs, achieve high performance in all areas, and satisfy the needs of all stakeholders (Edwards, 1993). In the beginning of the 21st century, most institutions of (HE) in the world are facing the same different waves of challenges represented in: low productivity; increased costs; lack of financial resources; adoption of ineffective methods to achieve its goals; low level of job satisfaction among employees; as well as,
greater demand for enrollment; a diverse student body; the impact of globalization and expanding technological demands. How can institutions of HE increase their overall capacity to meet these various challenges (Dimaano, 2009).

To meet these challenges and overcome is very important, not only to enable these institutions in their ability to compete, but also to be able to survive and continuity. Therefore, those institutions in dire need proper application of the concept of Total Quality Management (TQM) to improve quality standards and enable them to excellence, through the achievement of several benefits such as increasing production capacity; reducing the cost of performance; and improving the quality of the product or service provided to the beneficiary. However, the traditional perceptions represented in the view that improving quality conflict with increasing productivity; contribute to further costs of performance; makes many of administrative organizations hesitate to invest in applying the concept of Total Quality Management, which leads to many managerial problems; bad service and product; and therefore not achieve customer satisfaction (Al-Alawi, 2000).

(Harris, 1994) There are three generic approaches to TQM in higher education; firstly there is a customer focus where idea of service to students is fostered through staff training and development, which promotes student's choice and autonomy. The second approach has a staff focus and is concerned to value and enhance of responsibility for action by defined working groups. The third approach focuses on service agreements stance and seeks to ensure conformity to specification at certain key measurable points of the educational processes.

In their model for TQM implementation in higher education institutions, Osseo-Asare and Longbottom (2002) propose enabler criteria, which affect performance and help organizations achieve organizational excellence. These "enabler" criteria are leadership, policy and strategy, people management, resources and partnership and processes. They also suggest "result" criteria including customer satisfaction, people satisfaction, and impact on society and key performance results for measuring the effectiveness of TQM implementation. Non-implementation of TQM was due to institutions preoccupation with funding agencies and non-embracement of continuous improvement culture. Proper education and training of those involved in the implementation process will help to mitigate this problem.

CHALLENGES IN IMPLEMENTATION OF TQM IN INSTITUTIONS

Quality management is not an academic approach that can be easily applied to Higher Education institutions, especially because the academic culture of these organizations is quite strong and resistance to its concepts, principles and practices. And this resistance begins with terminology. Terms such as product, client, empowerment or even strategy, not to mention TQM or reengineering do not easily resonate in Higher education institutions. For Massy (2003) "the greatest resistance to quality process improvement comes from professors who think it's just another business-oriented fad. The language of some TQM advocates contributes to this view, customer, scientific method and removal of all forms of waste is sure to raise the hackles of academies".

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) add 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 emphases 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 it wants to implement and capable of involving all the institution’s members.

Education is a service which has got clients, and that they, as in any other business, can be satisfied or not. Higher education just likes any other format of formal education as a reflection of the social context. Not surprisingly when we said that its and their institutions suffers and faced huge problems and challenges and threats seriously arose from variables that changed shape of the world and created new world order based on science and technological development acceleration basis, and comprehensive programs for development and modernization guarantees for Arab education institutions the ability to overcome its problem and weaknesses.

APPLYING TQM IN EDUCATION

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Figure 1: TQM IN INDUSTRY

INPUT
Raw Materials

PROCESS
Production Line

Quality Check
Pass

OUTPUT
Finished Goods

Rework or Reject
Figure 1 depicts the simple model of TQM in industry where the input is the raw materials. They enter the process stage and move on the production line where the products are made. Next is the quality check (QC) where every product is checked thoroughly to meet the standards, if found defective it is either reworked or rejected based on the case. If the products clear the quality check then they are dispatched to the customers/delivery channels as finished goods.

Figure 2: TQM IN EDUCATION

Figure 2 depicts the simple model of TQM in education where the input is the students. They go through a teaching process aided by the teachers. At the end of the every year or semester the students have to take an assessment that might be a written or/and practical examination. If a student is found to meet the minimum level of knowledge as per the requirements of the course, he/she is declared pass, if not they have to either redo the subjects or discontinue. The output of the education is the final knowledge and know-how of the students.

Table 2: Comparing TQM in Industry & Education

<table>
<thead>
<tr>
<th>TQM IN INDUSTRY</th>
<th>TQM IN EDUCATION</th>
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</thead>
<tbody>
<tr>
<td>Corporate Culture</td>
<td>Class / Institutional Culture</td>
</tr>
<tr>
<td>CEO / Sr. Managers</td>
<td>Principal / Dean</td>
</tr>
<tr>
<td>Managers</td>
<td>Head of the Department</td>
</tr>
<tr>
<td>Employees</td>
<td>Faculty &amp; Staff</td>
</tr>
<tr>
<td>Customers</td>
<td>Students</td>
</tr>
<tr>
<td>ISO, CRISIL Certification</td>
<td>NAAC, NBA Accreditation</td>
</tr>
<tr>
<td>Zero defects</td>
<td>100% Results</td>
</tr>
<tr>
<td>Production Process</td>
<td>Academic Process</td>
</tr>
</tbody>
</table>

Source: Developed by the Researcher

APPLYING TQM IN MBA – MODEL DESCRIPTION

TQM in education can be successful. The old role of teacher as lecturer and provider of knowledge has been replaced with a new role: teacher as facilitator, mentor and classroom manager. The goal is no longer to impart only knowledge to students: teachers and students must design and deliver education together. If the students are active participants in the classroom, it is more likely that they will process the necessary knowledge and motivation to become life-long learners.
CRITICAL ISSUES

According to Srivani (2004), critical issues in implementation TQM in higher education include:

**Leadership** with lack necessary authority makes it difficult for them to deploy these values and goals through the layers of higher education institutions. The effectiveness of leadership is adversely affected by individuals among academic staff and due to absence of team working.

**Cultural and Organizational Transformation**: rigid department model, interdepartmental competition for resources and lack of market focus are the cultural and organizational reasons that make it difficult to tune in with TQM transformation. In adopting TQM culture, organizations move from product focus to market focus. But for faculty, particularly research faculty, primary loyalty lies on the academic field. Market requirement for their students are of secondary importance.

**Customer Identification**: ambiguity in customer identification is also creates hurdles in TQM implementation. Among the main groups within the higher education institutions – there is not much agreement on which the customer 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 well–defined customer and customer focus, quality efforts may be easily diffused.

DISCUSSIONS

This paper argued that the need for Higher Education institutions to develop their own internal quality management to face the reality today in the challenging environment. (pratasavitiska and Stensaker, 2010) So may be its again the time to look at existent Quality management models, going beyond the debates about whether quality management is or not suited to
higher education, focusing less on the label and paying more attention to the content substance of such models.

Furthermore this paper leads the author to conclude that TQM in higher education not only have full potential to cover the standards but additionally they may allow Higher Education institutions to go step further, opening the possibility for them to really move towards quality enhancement.

As reviewed in literatures many of Higher Education institutions are testing or implementing quality concepts like TQM and SERVQUAL developed for industry. Benefits to be gained from using these concepts, such as engagement in self–assessment by academic departments and greater focus on a strategic approach to quality management, these are related to the efficiency and effectiveness of non–academic functions. Concerns have been reported regarding use of these models in that they may encourage a culture of managing it in Higher Education institutions.

CONCLUSION

Effective teaching matters as quality teaching produces quality learning that creates quality students and makes customers satisfied. As such, Total quality management is one of the useful tools in the teaching and learning used in the school / college even though it was developed initially for the manufacturing industries. For any continuous improvement effort to be effective, quality and reliable feedback information is essential and important in the evaluation procedure of learning with the output clearly defined and measured.

TQM model adopt a view that quality in education actively involves interaction and the satisfaction of the stakeholders that can make a significant difference in academic environment. Also, the model adopt specific TQM principles to enhance the academic quality that allows one to follow clear aims and objectives, to make continuous improvement in teaching, learning and assessment methods, and to be willing to be judged by others. TQM is a strategy that is very useful in the higher educational institutes because it involved all the stakeholders and brings out the best in them and enhances the quality of education.

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