Implementation Issues Of Total Quality Management In Higher Education

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INTRODUCTION

Quality has become one of the most important competitive strategic tools, and many organizations have realized that it is a key for developing products and services that support continuing success. Quality systems are designed to set a clear direction for organizations to follow; enabling understanding and involvement of employees proceeding towards a common goal. As competition increases and changes occur in the business world, we need to have a better understanding of quality. Quality concerns affect the entire organization in every competitive environment. Therefore, top managers need to understand and apply quality philosophies to achieve high performance levels in products and processes and to face the challenges of the new global competition. Consumers demand high quality levels of products/services at reasonable prices to achieve value and customer satisfaction.

There is an increasing focus on quality management in higher education throughout the world. With increased competition, higher education institutions have recognized the importance of quality system implementation in maintaining effectiveness in a violating business environment. Specially meeting the needs and desires of the customer is critical and must be done in a much better and efficient manner than has been done in the past.

STATEMENT OF THE PROBLEM

The purpose of this study is to identify some implementation issues for higher education. The issues which have been identified have been mentioned below:

1. The need for top administrators to understand total quality management.
2. To understand the importance of leadership-support and commitment in TQM efforts.
3. To develop an awareness of the importance of change management tools and techniques in the creation of total management environment.
4. To promote the importance of established quality management philosophies.
5. To understand how to determine and evaluate customer requirements.
6. To determine the need for continuous improvement efforts and competitive advantage in the future.
7. To explore the integration of organizational interactions through total quality management philosophies to achieve improved efficiency and customer satisfaction.
8. To understand how organizations can successfully achieve business excellence through the implementation of TQM practices.
9. To evaluate how the adaptation of TQM approach can help to overcome some of the difficulties of the changing business environment.

HISTORY OF QUALITY

The introduction of total quality management concepts can be traced to the first management consultant, an engineer named Frederick W. Taylor. His application of science to complex human endeavors was further developed by Walter A.Shewhart, a statistician, who developed work sampling and control charts, which attracted the interest of another statistician, Edwards Deming, and Joseph M.Juran; an investigator, who recognized that system problems could be addressed through three fundamental managerial processes - planning, control and improvement. Philip B.Crosby

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advocated the "zero-defects" program adopted by the US federal government defining quality as "conformance to requirements". Work regarding the quality discipline is continuing, and adoption of these concepts by service industries is resulting in broadened application and interpretation of quality principles. Marketing approach and strong customer focus of Deming, Juran and Crosby initiated the TQM principles and share a common theme of participatory management. Management participation and attitude, professional quality management, employee participation, and recognition reflect a philosophy, making internal and external customer satisfaction as the organization's primary goal.

QUALITY MANAGEMENT PHILOSOPHIES

THE DEMING PHILOSOPHY

W. Edwards Deming was originally trained as a statistician, and much of his philosophy can be traced to these roots. Deming focuses on the improvement of products and services in conformance to specifications by reducing uncertainty and variability in the design and manufacturing process.

DEMING'S 14 POINTS FOR MANAGEMENT

1. Create and publish to all employees a statement of the aims and purposes of the company or other organizations. The management must demonstrate constantly their commitment to this statement.
2. Everyone should learn the new philosophy throughout the organization.
3.Understand the purpose of inspection, it should evaluate process improvements and cost reductions.
4.End the practice of awarding business on the basis of price alone.
5.Improve constantly and forever- the system of production and service.
6.Institute training.
7.Teach and institute leadership.
8.Drive out fear. Create trust. Create a climate for innovation.
9.Optimize all efforts toward the aims and purposes of the company.
10. Eliminate exhortations for the workforce.
11.(i) Eliminate numerical quotas for production; instead, learn and institute methods for improvement.
11. (ii) Eliminate management by objectives (MBO). Instead, learn the capabilities of processes, and how to improve them.
12. Remove barriers that rob people of pride or workmanship.
13. Encourage education and self-improvement for everyone.
14. Take action to accomplish the transformation.

JURAN'S QUALITY TRILOGY

Dr.J.M.Juran, whose impact on the quality movement in Japan was second only to Deming's -developed a useful framework to what is referred to as "a universal thought process-a universal way of thinking about quality.
The underlying concept of the quality trilogy is that managing for quality consists of three basic quality oriented processes:
✠ **Quality Planning**
✠**Quality control**
✠**Quality Improvement**
This is the same basic idea behind the so-called PDCA cycle, known in Japan as the Deming wheel, which is considered to be essence of the Japanese approach to total quality control:
✠**PLAN:** The basic planning process described by Juran.
✠**DO :** The implementation of the Plan.
✠**CHECK:** Evaluation of performance according to critical measures appropriate methods.
✠**ACT:** Quality improvement efforts based on the lessons learned from experience.

THE CROSBY PHILOSOPHY

Philip B.Crosby was the corporate vice president of quality at International Telephone and Telegraph (ITT) for 14

years after working his way up from being a line inspector. After that, he established Philip Crosby Associates in 1979 to develop and offer training programs related to quality.

Quality means conformance to requirement, not elegance:

- There is no such thing as a quality problem; only opportunities to improve.
- There is no such thing as the economics of quality; it is always cheaper to do the job right the first time.
- The only performance measurement is the cost of quality approach.
- The only performance standard is the "Zero Defect".

CROSBY'S 14-POINT PROGRAM

- **Management Commitment:** Top management must become convinced of the need for quality improvement, and must make its commitment clear to the entire company.
- **Quality Improvement Team**: Management must form a team of department heads to oversee quality improvement.
- **Quality Measurement**: Quality measurement appropriate to every activity must be established to identify areas needing improvement.
- **Cost of Quality Evaluation:** The controller's office should make an estimate of the cost of quality to identify areas where quality improvement would be profitable.
- **Quality Awareness:** Quality awareness must be raised among employees. They must understand the importance of product conformance and the cost of non-conformance.
- **Corrective Action :** Opportunities for correction are generated by steps 3 and 4, as well as discussions among employees.
- **Zero Defects Planning**: An ad hoc zero defects committee should be formed from members of the quality improvement team.
- **Supervisor Training:** Should begin early in the process. All levels of management must be trained to implement their part of the quality improvement program.
- **Zero Defects Day:** A Zero Defect day should be scheduled to signal to employees that the company has a new performance standard.
- **Goal Setting:** To turn commitment into action. Individuals must establish improvement goals for themselves and their group.
- **Error Cause Removal:** Employees should be encouraged to inform the management of any problems that prevent them from performing error-free work.
- **Recognition:** Public, no financial appreciation must be given to their quality goals or perform outstandingly.
- **Do All Again:** To emphasize the never-ending process of quality improvement.

TOTAL QUALITY MANAGEMENT (TQM)

TQM can be defined as: A continuously evolving management system consisting of values, methodologies and tools, the aim of which is to increase external and internal customer satisfaction with a reduced amount of resources.

Total Quality Management refers to a management process and a set of disciplines that are coordinated to ensure that the organization consistently meets and exceeds customer requirements. TQM engages all divisions, departments and levels of the organization. Top management organizes all of its strategy and operations around customer needs and develops a culture with high levels of employee participation. TQM companies are focused on the systematic management of data in all processes and practices to eliminate waste and pursue improvement.

The goal is to deliver the highest value for the customer at the lowest cost while achieving sustained profit and economic stability for the company. Top management must commit to a vision, often expressed in a mission statement, and align and train its employees towards that common goal. To do this, cross-functional teams work on improvements that promote efficiency and respond to customer requirements. Long-term relationships with customers, suppliers and employees focus on quality beyond short-term profit.

CORE PRINCIPLES OF TOTAL QUALITY MANAGEMENT

While every organization should implement its own specialized form of quality management, there are some basic core principles that guide every quality effort.

1) The Customer Is The Ultimate Determiner Of Quality: Services and programs should be designed, with the needs of the customer in mind. Therefore, it is important to determine who the customers are and define their specific needs.

2) Quality Should Be Built Into The Process From The Beginning: It is not simply derived from customer complaints. It is important that all levels of an organization be involved in producing a quality product and not just try to modify it before delivery.

3) Achieving Quality Requires Continuous Improvement: The Customer's expectations are always changing and typically rising as quality management begins to yield results. It is important to remember that when customers are assessing quality, they are not simply comparing us to our performance last year, but to every other organization that is serving their needs.

4) Quality Management Requires The Involvement Of All Staff And Partners: Since improved quality comes from improvements during the process leading up to the delivery of the product or service, all levels and divisions of an organization must be involved in developing quality. Therefore, key components to lasting Quality management are significant team building, partnership creation, and trust.

DEFINITION OF HIGHER EDUCATION

Higher education third stage or post secondary education is the non-compulsory educational level following the completion of a school providing a secondary education, such as a high school, or a secondary school. Higher education is normally taken to include undergraduate and post graduate education, as well as vocational education and training. Colleges and universities are the main institutions that provide higher education. Collectively, these are sometimes known as higher education institutions. Higher education generally results in the receipt of certificates, diplomas or an academic degree.

IMPLEMENTATION OF TQM IN HIGHER EDUCATIONAL INSTITUTIONS IN INDIA

The implementation of TQM is based on the European model for Business Excellence, and the Model is used by the top management team of the institution to make an organizational assessment of the whole organization.

The Model Has Several Strengths:

It takes into account both enables and results.

✠ It makes it possible for the leaders to plan in a structured way what to do in the future to achieve the particular results that they want.

✠ It makes it possible for leaders to make priorities among all the different things that an organization is doing in a way that the resourced are utilized in a proper way.

QUALITY CONCEPTS IN EDUCATIONAL INSTITUTIONS

When an educational institution begins to work with quality management principles and concepts, a lot of problems will occur because it is difficult just to copy from successful companies in other fields e.g. from manufacturing industries. In order to have reasonable high chance for success with quality improvement initiatives, we have to discuss the quality management principles and concepts within the group of leaders in the first step of the quality journey.

1. The School Is Not A Factory.
2. The Students Are Not The Product.
3. Their Education Is The Product.
4. The Customers For The Product Are Several:

a. The Students Themselves
b. Their Parents
c. Their Future Employees
d. Society At Large
5. Students need to be managers of their own education.

THE MOST POPULAR QUALITY TOOLS OF TQM IN IMPROVING EFFECTIVENESS IN HIGHER EDUCATION

1.Brainstorming
2. Affinity Diagram
3. Nominal Group Techniques
4. Lotus Diagram
5. Radar Chart
6. Run Chart
7. Cause And Effect Diagram
8. Relations Diagram
9. Pareto Diagram
10. Flowchart
11. Check Sheet
12. Force Field Analysis

HOW THESE TOOLS CAN HELP

Using these quality tools as part of the improvement process will help higher education to gain consistent results.We can use these tools as part of a "plan-do-study-act" process (PDSA):
✠ **PLAN** : Asses where we are and where we want to be, -identify strengths and barriers to improvement, and decide what we need to change.
✠ **DO** :Implement changes on a small scale or trail basis.
✠ **STUDY** : Using data, identify if our changes made a difference.
✠ **ACT**: Set the process in motion and continuously assess the results.

POINT OF IDENTIFICATION FOR IMPLEMENTATION OF TQM IN HIGHER EDUCATION

1. Teaching And Learning.
2. Economic Education.
3. Continuous Quality Improvement.
4. Teacher Education Quality Control.
5. Principles To Faculty Selection.
6. Value Creation.
7. Performance Measurement.
8. Quality Concept Of Education.
9. Quality Of Academic Library.
10. Academic View Of Purpose Of Higher Education.
11. Accreditation Standard.
12. Research Study.
13. Taxonomy Of System Dynamics.
14. Self Assessment.

1. Teaching And Learning: Teaching refers to an instructional activity that takes place in the form of a dialogue between teachers and students regarding segments of a text. The dialogue is structured by the use of four strategies:

summarizing, question generating, clarifying and predicting. Learning is one of the most important mental functions of humans. It relies on the acquisition of different types of knowledge supported by perceived information. It leads to the development of new capacities, skills, values, understanding and preferences.

2.Economic Education: It pays constant attention to the needs of the customer and requires a continuous process of gathering relevant information and data.

3.Continuous Quality Improvement: It is a philosophy that we can continuously improve in a step-by-step manner- much like a mountain climber. The key is knowing how to climb (this is the process) to try different paths to the peak (learning by trial) and to hold the elevation we have gained (adopting the successful processes into our day to day routine).

4. Teacher Education Quality Control: Teacher education refers to the policies and procedures designed to equip teachers with the knowledge, attitudes, behaviors and skills they require to perform their tasks effectively in the school and classroom. The 'no fault' approach is believed by some to be satisfactory, as weaknesses are carefully identified, assessed and then addressed through the provision of in service training.

5.Principles Of Faculty Selection: Depend on faculty cooperation; program planning, and judicious use of limited funds. Department and faculty should recognize development activities as a normal part of a productive faculty member's academic work that enhances instructional and general academic effectiveness.

6. Value Creation: Value creation analysis looks at how each participant is adding value to the system. The roots of this analysis lie in the principles of value-added accounting and value chain analysis. The theory goes that at every point along the value chain, we should be adding value to the product or service.

7.Performance Measurement: Performance measurement is the use of statistical evidence to determine progress towards specific defined organizational objectives.

8.Quality Concept Education: A quality education imparts a lifelong love of learning for its own sake. It provides challenges in many different areas of endeavor so the student can discover his/her strengths and passions. It prepares the student for further education and for adult life as a thoughtful and well informed citizen of the nation and the planet.

9. Quality Of Academic Library: The traditional orientation of measuring the quality of an academic library in quantifiable terms of its collection and use no longer offers attainable goals; nor does it adequately addresses the campus community's demands for information.

10. Academic View of Purpose of Higher Education: Views are considered in the discussion around purpose quality and performance measures in higher education. Quality of higher education is an increasingly contentious and debated issue. Views of academics on issues around quality in higher education are critical to the debate.

11. Accreditation Standard: Support assessment towards holistic, systematic, objective, data based, transparent and shared experience for institutional improvement.

12. Research Study: Is an analytic approach to conduct an epidemiological investigation.

13. Taxonomy of System Dynamics: Is the science and methodology of classifying organisms based on physical and other similarities. System dynamics has a role in corporate governance planning, resourcing and budgeting, teaching quality, teaching practice, micro worlds and enrolment demand. System dynamics is a tool for decision making in higher education management.

14. Self-assessment: Self-assessment in an organizational setting refers to a comprehensive, systematic and regular review of an organization's activities and results. The self-assessment process allows the organization to discern clearly its strengths and areas in which improvements can be made culminate in planned improvement actions which are then monitored for progress.

LITERATURE REVIEW EARNS THE KNOWLEDGE OF THE PROBLEMS AND THE SOLUTIONS OF THE ABOVE MENTIONED POINTS IN HIGHER EDUCATION

1. How teachers teach and how they manage what students learn?

a. Define the attributes and strategies that satisfy all of these conditions and may still not qualify as TQM.
b. Further work may be done to find conditions which may fit as quality to TQM.
2. Finding the goal of higher learning.

1. THE GOAL OF HIGHER EDUCATION IS TO PRODUCE LEARNING

a. Producing high-quality teaching is desirable only in that it reduces the cost of the ultimate goal-the production of learning.
b. Further Work: Work may done to find out the careful definitions of the learning process and the roles that various agents play.

2.WHAT IS THE NEED FOR QUALITY IMPROVEMENT IN HIGHER EDUCATION?

a. The key is to never lose sight of customer satisfaction.
b. Scope Of Work : Work may done on application of TQM for organizational change.

3.HOW TQM PRINCIPLES CAN BE APPLIED FOR FACULTY SELECTION?

a. Optimization of the job definition which will serve as the primary marketing device to attract highly qualified candidates and which will serve as an effective criteria for all parties to have a common understanding of the position and the expectation it is to fulfill**.**
b. Scope: Further work can be done to apply similar process improvement methodologies to the other search processes that will result in significant improvements in the overall faculty selection process.

4. TO FIND THE ANSWER TO THE QUESTION, HOW TO CREATE VALUE AND SUSTAINABLE COMPETITIVE ADVANTAGE?

a. Suggestions were found to make a significant contribution to the management's understanding of the enterprise's use of information to create value.

b. FURTHER SCOPE

i. Further implementation of the framework across a wider sampling to determine its application, and possible limitations in different industries.
ii. Further consideration of the customized value proposition in commodity markets.
iii. Further investigation of the value creation cycle as customer focused model as a unit of analysis.
iv. Further investigation into the impact that stakeholders such as employees or community members have on the enterprise's value proposition.
v. Further research to investigate the market performance of our three part classification of value adding: value maintainers, value adders, and value creators.
vi. Further consideration to adding enterprise strategy as an extra Foundation Driver.

5.TO FIND OUT THE QUALITY DIMENSIONS IN THE LIGHT OF SERVQUAL OF THE RESEARCH LIBRARY

a.The success and sustenance of libraries in future depends upon their capability to be more dynamic and continually prove their value in academic and research endeavors. The only alternative left to the research library is to adopt TQM in all the integrated library activities and services and thereby contribute to the productivity and accomplishments of the customer expectations.
b. Scope: There are six other dimensions to measure the quality dimensions in the university. They are Reliability, Responsiveness, Assurance, Access, Communication, and Tangibles besides Empathy and Security.

6. DISCUSSION OF SOME ISSUES AND THEIR IMPLICATIONS

a. Higher education is required to demonstrate and develop its quality.
b. Quality in higher education is no longer of interest only to academics.
c. Higher education is not as homogeneous as it used to be.
d. How work can be used to develop quality**.**

e. Conclusion is that there is a need to clarify the quality concept in higher education.
f. Further Scope: We can find out the answer of the question whether it is potentially possible to arrive at a definition of quality in higher education that could satisfy everyone.

7.HOW STATISTICAL DATA REFLECTS THE OVERALL SITUATION OF LIBRARY QUALITY MEASURES AND ASSESSMENT?

a. Focused on the development of methods and standards for the evaluation of quality of research libraries including the academic ones**.**
b. Further Scope: The methodology and tools used in the project can be improved, completed and developed.

8.FINDING THE ACADEMIC'S VIEW OF THE PURPOSE OF HIGHER EDUCATION.

a. The findings of this research indicate that the potential for this may be rooted in fundamental differences in perceptions about the purpose of higher education.
b. Scope: Further quantitative measures.

9.FINDING ANSWERS TO THREE QUESTIONS

a. Academic senate positions and continuing faculty concerns with and objections to the current accreditation approach.
b. Summary of the experiences of the colleges who piloted the new standards.
c. Practical, pragmatic assistance to local senates who must address the new student learning outcome requirements and accommodate the shifting paradigm required for completing the self study.
d. A consideration of the new standards reveals many challenges and a continuing controversy**.**

10.HOW ASYNCHRONOUS GROUPWARE SUPPORT AFFECTS THE PROCESS IMPROVEMENT GROUPS?

a. The research has addressed the affects of asynchronous groupware support on group oriented factors for groups.
b. Scope: How the research can be carried out in a synchronous way.

11.INITIAL TAXONOMY OF SYSTEM DYNAMICS MODEL IN HIGHER EDUCATION

a. What next to do for higher education
b. WORK CAN BE DONE ON
1. Critical review of system dynamics models that investigate higher education issues.
2. Highlighting important higher education management issues.
3. Assessing the impact of new educational technology**.**

12.FIND OUT THE APPROPRIATENESS, USEFULNESS AND EXPERIENCED BENEFIT OF USING THE TQM CONCEPT

a. It is important to realize that the obtained results of the three research questions presented above do not give a complete picture that can be used to answer the overwhelming question whether TQM based self assessment is help or hindrance for educational organizations.
b. Scope of work : At least five points in this regard on which each points can be further carried out:
1. Planning
2. Organizational contact
3. Resources
4. Communication
5. Co-workers' view

CONCLUSION

The present system in higher education seems to have some characteristics, which are common with the situation in yesterday's industry. It is rather a question of trying to find out whether there are possibilities to improve the

educational system by adopting perspectives and methods, which have become common in many parts of the trade and industry. Assuming that concepts such as 'customers', 'processes','continuous improvement' making up the vocabulary of TQM are interpreted in a general way, these concepts seem valid and relevant in higher education. A greater emphasis on customer needs, processes and continuous improvements could result in substantial effects on teaching and learning in higher education.

POSSIBILITIES FOR FURTHER STUDIES

1. What is really happening within the institutions where quality systems have been implemented?
2. Study of a more general character concerning different approaches to quality management -to what extent are these approaches justifiable and effective as a means to manage higher education.
3. To develop quality measurement instruments and to regulate higher education.

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