Quality Assurance Model in Higher Education: An Input from Industrial Best Practices

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Abstract - Quality can be defined as that which best satisfies and exceeds customer's needs and wants. Quality can be of two kinds, intrinsic and extrinsic. The intrinsic quality of higher education refers to the basic value and ideals, which form the very heart of higher education. It focuses on the knowledge creating processes and student learning. It represents the core of academic quality. The academic community can be seen as the guardian of intrinsic quality. The extrinsic quality refers to the capacities of higher educational institution to respond to the needs of the society with whom they interact. It concerns the demands that society directs towards higher education.

Key Words: Quality Assurance, Quality aspect of Service, FMEA, ISO, Quality Management System, IQAC.

I.   INTRODUCTION

The issue of quality in higher education poses a special challenge because of its two distinct aspects – service and education – which need to be seen differently and addressed not only separately but also synergistically. This fact makes the whole issue of quality in higher education fairly complex and also explains the common belief among academics that the issue of quality in higher education is not comparable to any other sector. Given the complex nature of quality in higher education, a question is raised time and again in academic circles should the quality assurance models be used to address the issue of quality in higher education. This paper is an attempt to address the question of quality in higher education from a very practical aspect. An institution of higher education should successfully deploy the quality models in combination with the accreditation model to fulfill the nationally recognized higher education quality standards to realize ideals of academic excellence and address both the service and education aspects of quality in higher education.

II.   QUALITY MODELS & QUALITY IN HIGHER EDUCATION

Service Aspect

In educational institution, the service aspect of quality is applicable to educational support services, institutional facilities and administrative services. Concerning the use of quality models to address these aspects in higher education, there is generally a consensus among academicians that the quality models available & implemented in other sectors are quite appropriate for education because of the following reasons & common belief:

(a) The 'service aspect of quality' in higher education is similar to that of any other service in our daily life like banking, hospitality, traveling, etc.

(b) The 'service aspect of quality' in higher education, like any other usual service, is customer/user-driven and involves tangible processes which can be conveniently measured and improved.

(c) The common understanding on the part of academics that, in an institution of higher education, the quality of teaching and learning is likely to improve with the provision of high quality educational support services, administrative services and institutional facilities – for example, instructional support services or other necessary institutional facilities like libraries and learning resources.

The internationally accredited quality system management models, thus are believed to be quite suitable and having the necessary potential to address appropriately the 'service aspect of quality' in higher education as the models provide us with a comprehensive framework of quality management.

Education Aspect

Regarding the use of the existing quality models to address the education aspect of quality in higher education, the critics argue that the quality models are incompatible with higher education as the models having originally been developed for manufacturing and business organizations, are based on TQM philosophy which may not be very appropriate for an educational environment.

Away from this controversy, the achievement of academic excellence, in terms of quality of teaching, learning, research and scholarship, remains at top priority of all academic institutions. The major challenges are

a)   How will it be ensured that all teachers, in an institution of higher education are effectively using the required pedagogical models to assure quality of education?

b)   How to ensure that all teachers in an institution have not only acquired the necessary skills in applying the needed pedagogical models but they are also equally motivated

to use those models effectively to impart quality education?

c) How to ensure that the effective processes of teaching and learning are being applied and controlled by all the teaching staff generally in an institution of higher education so that, by end of the day, all the students attain a minimum desired quality standard?

d) How to ensure that all teachers in an institution of higher education are generally receiving necessary instructional support services or other indispensable institutional support facilities and administrative services appropriately to guarantee high quality teaching and learning?

e) How to ensure that the academic programs which are being offered in the institution are meeting the present and future needs of the students and the community at large which, by end of the day, the students are going to serve ?

f) How to ensure that all the institutional resources are being effectively and efficiently deployed to achieve the goal of quality education?

g) How to ensure that there is an on-going improvement and development in all collegial functions that an institution of higher education is doing in order to impart quality education?

h) How to ensure that an institution of higher education is effectively achieving its major goal of imparting quality education?

III. NEED FOR AN EFFECTIVE MANAGEMENT METHODOLOGY

It's quite clear that the issue of quality in education at institutional level cannot be addressed by a single factor but require a multi dimensional approach to resolve the issue of quality in education. The vital elements of the framework should typically address the following [1][3]

a) **Leadership** – to ensure that the overall direction of the higher education institution is set towards educational excellence and the entire institution is steered with a strong inspirational force to achieve its mission and vision of the excellence.

b) **Policy and Strategy** – to ensure that the institutional mission of quality education will be systematically achieved (how the institution plans for the future, and it turns those plans into actions?). For example, how all teachers in the institution will effectively deploy necessary pedagogical models with a clear-cut action plan to achieve educational quality or academic excellence at institutional level?

c) **Focus on Faculty and Staff** – to ensure that all teachers and other staff in an institution are being taken care of properly and they are: (a) being provided, on continual basis,

with appropriate opportunities for professional development so that they are always duly equipped with the latest knowledge and skills necessary for them to perform their professional duties; (b) generally satisfied with the work environment; (c) receiving reasonable salary packages and compensations; and, (d) motivated enough to perform their jobs effectively.

d) **Focus on Students** – to ensure that students need are properly taken care of; suitable academic programs are offered to meet the present and future needs of students; 'student-centered' education producing quality graduates is every body's business in the institution; and, so on.

e) **Focus on Key Processes** – to ensure that student-centered key educational processes are properly in place; duly implemented; effectively controlled; and, continuously improved. [2]

f) **Focus on Effective and Efficient Deployment of Resources** – to ensure that the institutional resources in an institution of higher education are deployed effectively and efficiently in order to impart quality education.

g) **Focus on Valued Partnerships –** to ensure that valued technical and industrial partnerships as well as key suppliers are taken care of properly in order to achieve the institutional goal of academic excellence.

h) **Performance Measurement/Assessment** – to ensure that an institution of high education has put in place a mechanism of regular and systematic measurement or assessments /audit/review of all collegial processes, functions and outcomes to find the extent to which the institution is achieving its mission?

i) **Continuous Improvement** – to ensure that an institution of higher education has evolved itself into a 'learning organization' whereby it is continuously improving all its processes, functions and outcomes.

It is quite obvious that an institution of higher education will require such a management methodology that would provide it with an integrated educational quality management framework

Features of Existing Quality Models

There is a need to explore whether the existing quality models can provide the required quality management system and methodology. Various existing quality models (EFQM, BNQA and ISO 9001) have several commonalities as all the models are based on TQM philosophy.

Features of ISO 9001 Quality Model and its Application in Higher Education

ISO 9001 is an internationally recognized Quality Standard which provides a comprehensive Quality Management System. The Prime objective of ISO 9001 is to promote development of standards to improve efficiency, productivity and focus on continual improvement. It

provides a unique framework for any organization to establish a customer-oriented quality system. It tells organizations what to do, but not how to do it.

ISO 9001 focuses on designing and establishing a quality management system, and aims at meeting and enhancing the requirements of the customers, organizations and other concerned parties. It's a 'process model' with the integration of four major components as under

a) Management responsibility,

b) Resource management.

c) Product (and/or service) realization,

d)Measurement, analysis & improvement.

All the above stated features of ISO 90001 Quality Model make it a flexible model which can be easily applied in higher education setting. The interested institutions of higher education are today adapting this model conveniently to address the issue of quality in teaching and learning in their campuses. ISO 9000 Quality Model has been introduced successfully in the institutions of higher education in various countries. It is observed that, in addition to the features and requirements of ISO 9000 standards, the possible explanation for the general success of ISO 9000 Quality Model in higher education may include the factors: (a) the discipline of writing the quality manual, (b) identifying procedures and writing work instructions would provide a much better grasp of the institution's internal processes, (c) internal and external customer or stakeholder links, and (d) an independently certified quality system.

Features of BNQA Excellence Model and its Application in Higher Education

The Baldrige National Quality Award (BNQA) is an organizational excellence award that is administered by U.S. Commerce Department and the award process is overseen by the National Institute for Standards and Technology (NIST). It has been established since 1987 to recognize performance excellence in the US organizations. Education category has been added in BNQA since 1999. This award is based on an organizational performance excellence model. The features of this model are following: [4]

• The BNQA Excellence Model for Education provides for a quality management system having seven categories which provide a framework for improving overall performance in an institution. Using BNQA Model for Education, institution can take steps to improve the following areas, thereby achieving organizational objectives and improving performance results:

1. **Leadership**—Evaluate how senior leaders guide the institution.

2. **Strategic Planning**—Examine how the institution sets strategic directions and how it determines key action plans.

3. **Students/Stakeholders and Market Focus**—Review how the institution determines student/stakeholders and market-driven requirements and expectations; and how it builds relationships with and acquires, satisfies and retains students.

4. **Measurement, Analysis and Knowledge Management**—Evaluate the use of analysis and improvement of data and information to support key organizational processes and the institution's performance management system.

5. **Faculty/Staff Focus**—Review how the organization empowers faculty/staff to develop to their full potential, and how human resource policies and procedures are aligned with the institution's objectives.

6. **Process Management**—Examine aspects of student learning and support processes, and see how they are designed, managed and improved.

7. **Organizational Performance Results**—Evaluate performance and improvement for student satisfaction, financial and marketplace performance, human resources, supplier and partner performance, operational performance, and governance and social responsibility.

The BNQA model with its quality management framework is gradually becoming popular with the US institutions of higher education. The quality system implicit in BNQA (Baldrige Award) clearly exhibits characteristics of both customer satisfaction and continuous improvement. The BNQA guidelines spell out what must be done to attain a high score in different categories of the model.

Features of EFQM Excellence Model and its Application in Higher Education

The EFQM Excellence Model is administered by the European Foundation for Quality Management (EFQM). The Model has been originally developed jointly by practitioners and scientists having its first publication in 1991. Since then, it has been continuously reviewed and improved. The main features of EFQM Model are following:

• EFQM Excellence Model is a non-prescriptive and the most 'value-added' quality management framework in the world. This 'value-addition' is mainly due to one of its very important features that this model recognizes society as one of the major stakeholders for an excellent organization. This feature makes this model very suitable for special types of organizations like universities, colleges and other institutions of higher learning.

• The fist five major criteria are addressed as "Enablers" (Leadership, Policy & Strategy, Partnership & Resources, and Processes). They show the structural preconditions of superior performance. The other four major criteria are "Results" (People Results, Customer Results, Society Results and Key Performance Results) to measure the

organization's performance and success from different stakeholders' perspectives.

• The assessment, according to this model, is based on a "RADAR" scheme. The results criteria ("R") have to reveal positive trends and favorable comparisons with both the organization's objectives and the level of performance in competition or best in the class. With regard to the enablers, all approaches ("A") should be sound and integrated with policy and strategy. They must be deployed ("D") in day-to-day business and regularly assessed and reviewed ("AR").

The EFQM model provides with a very powerful tool of self-assessment – an organization can establish a permanent learning cycle. It systematically determines the strengths and the areas of improvement, deduces and prioritizes definite measures and builds up continuous improvement and development. The progress is monitored during reassessment, leading again to further improvements.

The underlying idea in various organizational excellence models is that an organization will achieve excellence when it is able to identify and balance the needs of all its stakeholders. In EFQM model, the tasks of identification of stakeholders' needs and balancing those needs are accomplished comprehensively.

IV.   QUALITY SYSTEM ACCREDITATION

Accreditation is the result of a review of an organization or institution following certain quality standards agreed upon before hand. It is a kind of recognition that an organization or institution fulfills certain standards. Today educational institutions become more accountable to the need of students, parents and society at large to ensure the following[1]

• To see that the educational institutions are adhering to the plan of academic programmes set out

• To ensure proper infrastructural facilities and competent faculty

• To give proper guidance and counseling wherever needed to the institution

• To bring accountability of the educational institutions

• To focus on education quality and institutional integrity

• To recognize and reward excellence in performance of institutions

• To check the emergence of substandard institutions

• To promote a conducive climate that can facilitate innovations with the whole-hearted involvement of faculty

• To provide course-wise information to the consumer

• To make the desire for quality as the overarching principles in every operation

• To make the institution more knowledgeable about the needs of standard academics

• To create desirability through higher educational institutions meeting social and economic trends while maintaining high level of academic integrity and superior quality.

Rationale for Self-Assessment in Educational Institution

Self-assessment is the regular and systematic evaluation of the organization with reference to its actual achievement as well as achievement potential done through an internal process with the participation of the relevant work teams. It can be focused on the total organization or just a part of it. The fundamental questions to be posed and answered are:

• What should be achieved and How?

• What strategies are being followed and what is the effectiveness?

• SWOT Analysis at regular interval?

This exercise will help the academic institutions to understand and establish a strong basis for preparation of an action plan towards preservation of the best practices paving way for improvements wherever necessary.

Creating and Monitoring Internal Quality Assurance Cell (IQAC)

The IQAC can serve the following functions:

• To ensure continuous improvement in the entire operation of the College of Education

• To assure stake holders connected with the College of Education namely students, parents, teachers, funding agencies and society in general of the accountability of the institution for its own quality. The IQAC need to be constituted in academic institution. The functions of the IQAC may be outlined as follows:

• Ensuring progressive performance of academic, administrative and financial tasks

• Equitable access of the academic programmes to various sections of the society

• Optimization and integration of modern methods of teaching and learning

• Establishment of credibility of evaluation procedures

The coordinator is expected to take care of the following functions:

• Evolving and applying of quality benchmarks / parameters in various activities of the

Institution

• Organizing seminars and workshops for promotion of quality circles

• Dissemination of information on quality aspects

• Recording and monitoring quality measures of the institution

• Acting as a nodal agency of the institution for quality related activities

• Preparation of annual quality assurance reports and such other reports as deem necessary from time to time

• A report on the key areas identified at the beginning of the academic year along with perspective plan prepared followed by the action report is to be submitted to the NAAC towards the end of the academic year.

V.   CONCLUSION

In conclusion, it may be noted that the survival of any educational institution in the competitive world primarily lies in attracting the beneficiaries through provision of total quality service.

1) Higher Education essentially needs an effective management methodology to address the issue of educational quality at institutional level. It is therefore recommended to utilize any of the quality models as the effective management methodology to achieve the goal of academic excellence.

2) The existing quality system models are flexible which can be synergistically used in combination with all kinds of performance management models related to higher education to achieve excellence in teaching, learning, research and scholarship.

3) An institution of higher education conscious of achieving educational quality at institutional level may start with ISO 9001 Model as it is relatively a simple model with fewer requirements. The value addition here is primarily related to a clear identification of stakeholders and their needs, and achieving a balance to meet those needs.

4) Quality System Accreditation by NAAC is a commendable step towards improvement in qualitysstem in higher education. Implementation of any quality model along with NAAC accreditation will yield tremendous improvement in the quality of higher education.

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