Quality Assurance, Sustenance & Enhancement in Higher Education Institutes

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Higher Education in India – An Introduction

• An enabler for attaining economic growth, a vehicle for wealth generation and technological progress judging by the experience of industrialised nations.

• An asymptotic rise in the growth of higher education institution in India in all sectors
  ○ Nearly 780 Universities, nearly half of them are in private sector
  ○ Over 35000 colleges including over 5000 Technical colleges.
  ○ Opening of new IITs, IIMs, NITs, IIITs, NISERs, Central Universities etc.

• Problems in Higher Education Institutes
  ○ Poor faculty to student ratio
  ○ Less number of PhD’s, publications, citations and patents
  ○ Lack of industry institution partnership and employability of graduates

• The need for a dependable quality assurance mechanism has therefore gained importance
What is Quality?

- The British Standard Institution (BSI) - “the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs” (BSI, 1991).

- Green and Harvey (1993) identified five different approaches to defining quality:
  - in terms of exceptional, consistency, fitness for purpose, value for money, transformative

- Reeves and Bednar (1994) conclude “...The search for a universal definition of quality and a statement of law like relationship has been unsuccessful”.

- Gummesson (1990) – “it might be useful to create an insight into the many dimensions that form a fuzzy entity referred to as quality through social consensus rather than defining it”
Why Quality?

- Competition
- Customer satisfaction
- Maintaining standards
- Accountability
- Improve employee morale and motivation
- Credibility, prestige and status
- Image and visibility
Nature and Scope of Quality

- The scope of quality includes all sectors of economic and social activity
  - manufacturing activities
  - business processes
  - services.
- Perceptions of quality in higher education depend on the particular sector:
  - National Funding Agencies: education for largest number at minimum cost.
  - Educational Administrators: image and reputation of their institutions.
  - Faculty: student learning and satisfaction.
  - Development perception: exists within the institution, not imposed from outside.
- TQM - Quality Engineering Education
- Academic quality is referred by many measurable terms including:
  - Publications, Honours, Awards & Patents
  - Sponsored projects and consultancy
  - Interaction with the Industry, Profession & Community
  - Turn-over
  - Resources
  - Students & Teachers
  - Practical Knowledge / Training, etc.
Criteria for Ranking Academic Quality

- Agencies and Magazines rank academic institutions country-wise, region-wise and globally
- Assign weighting factors to the different criteria and come up with a single composite numerical score
- Some of these criteria are:
  - Depth and nature of coursework
  - Student/faculty ratio
  - Number of enrolled students who graduate (‘retention’),
  - Students' later achievements.
  - Facilities – Library, Laboratory, Computing
  - Reputation/Prestige
  - Quality of faculty members
  - Performance in competitive exams (GATE, CAT, GRE, GMAT, etc.)
  - Accomplishments of alumni, etc.
Dimensions of Quality in Higher Education

- Product dimensions
- Software Quality Dimensions
- Service Quality Dimensions
- The three different approaches lead to a conceptual framework covering six criteria to depict quality dimensions:
  - Tangibles
  - Competence
  - Attitude
  - Content
  - Delivery
  - Reliability
Institution Strategic Planning and Quality Assurance

- Develop quality policy through internal discussions and make it public
- Mission and vision statement
- Quality Policy Factors:
  - Available resources and global competition
  - Stake holders should own the policy.
  - Institutionalise quality to self-sustain - self improve & reform
  - Critical self-assessment (SWOT Analysis by stakeholders)
  - External peer review
- Need of Quality culture in Technical Education
  - To be growth oriented and have a good reputation
  - To be never out of market
  - To be capable of maintaining customer confidence.
  - To be cost effective.
  - To improve customer satisfaction and to develop confidence.
  - To use the creativity of faculty and students for development of the institution.
  - To provide careers to the faculty instead of jobs
  - To provide job satisfaction to all employees
  - To enhance healthy competition
  - To be an example to other institutions
  - To eliminate the waste of resources at all levels.
Models of Quality Assessment

- Country specific and Institution specific models.
- Models are process oriented and emphasize on the development of a system of quality assurance.
- Five popular models of quality assurance:
  - Baldrige criteria,
  - ISO 9000-2000,
  - Capability Maturity Model,
  - Six Sigma
  - Total Quality Management.

Quality Assurance in Higher Education

- Quality assurance in higher education - “a systematic management and assessment procedures adopted by a higher education institution or system to monitor performance and to ensure achievement of quality outputs or improved quality”
- It aims to give stakeholders confidence about the management of quality and the outcomes achieved.
- Quality assurance in higher education normally has two important aspects:
  - Design inbuilt quality
  - Manufactured quality
Quality Assurance Indicators

- Quality assurance indicators (QAIs) are measures which give information and statistics about educational effectiveness, efficiency and performance in different contexts.
- All indicators have one goal - Need for objective evaluation and Quality improvement.
- According to UNESCO:
  - What learners gain
  - Quality Learning Environments
  - Quality Content
  - Processes that support Quality
  - Outcomes from the learning environment.
- QAIs could be classified as: simple quality indicator, performance quality indicator and general quality indicator.
- Another way of classifying QAIs: Input, Output, Process and Outcome Indicators
- QA could also be carried out using four quality indicators, namely:
  - Finance
  - Access/participation,
  - Quality adequacy
  - Relevance of TE programme.
Quality Assurance Exercise in Institutions

- Institution undergoes routine and periodic quality assurance exercise
- Establishment of Quality Assurance Committee or Unit
- Strengthen the training outcomes and deliverables
- Competencies of instructor and instructional resources
- Explore funding
- Disliked by authorities and instructors in institution because of socio-economic challenges
- Philosophies of QA are sacrificed by personal interests and institutional corruption
- Positive outcomes despite of infrastructural deficiencies
- Contents of curriculum fulfils the needs of the society
Accreditation

- Accreditation is a diagnostic tool for educational reform.
- The dictionary meaning of accreditation is: official recognition or guarantee of quality acceptance.
- Purpose – to ensure quality control and quality assurance
- Link accreditation to institutional mission and vision
- Focus less on penalties and more on incentives
- Teaching and research must be viewed as key determinants
Accreditation (Contd.)

Why Accreditation?

- To promote and recognize excellence in technical education in colleges
- Support and advice in the maintenance and enhancement of quality of provision
- Assurance of the good standing of an Institution
- Enabling an Institution to state publicly that it has been inspected and has satisfied all the requirements for satisfactory operation and maintenance of quality in education

Need of Accreditation

- Funding decisions
- State recognition of qualification/ certification of professionals
- Accountability of Institutions to stakeholders
- Encouraging self improvement initiatives by Institutions
- Quality assurance of educational programme
Impact & Benefits of Accreditation

**Impact of Accreditation**
- Encourages quality improvement initiatives by Institutions,
- Improves student enrolment both in terms of quality and quantity
- Helps the Institution in securing necessary funds
- Enhances employability of graduates
- Facilitates transnational recognition of degrees and mobility of graduates and professionals
- Motivates faculty to participate actively in academic and related Institutional activities,
- Helps create sound and challenging academic environment in the Institution
- Contributes to social and economic development of the country by producing high quality technical manpower

**Benefits and Significance of Accreditation**
- Helps the Institution to know its strengths, weaknesses and opportunities
- Initiates Institutions into innovative and modern methods of pedagogy
- Gives Institutions a new sense of direction and identity
- Provides society with reliable information on quality of education offered
- Promotes intra and inter-Institutional interactions
Models for Accreditation

**ABET Model** (Accreditation Board for Engineering and Technology)
- Recognized by CHEA, USA for accreditation of college and university level programs in applied sciences, computing, engineering and technology.
- Established in 1932

**NBA Model** (National Board of Accreditation)
- The All India Council for Technical Education (AICTE), India constituted the National Board of Accreditation
- Established in 1994
- the NBA has accepted accreditation at the program level as the unit of assessment (post-graduate, graduate and diploma)
- The accreditation by NBA is categorical: Accredited or Not Accredited.

**NAAC Model** (National Assessment and Accreditation Council)
- Established in 1994 by UGC (University Grants Commission)
- NAAC grading valid for 5 years
The parameters adopted by NBA are called Graduates Attributes and they vary from discipline to discipline and level to level. As an illustration, following are the Graduate Attributes for UG Engineering Programme:

- Engineering Knowledge
- Problem analysis
- Conduct investigations of complex problems
- Modern Tool Usage
- The Engineer and Society
- Environment and Sustainability
- Ethics
- Individual and Team Work
- Communication
- Project Management and Finance
- Life-long learning
Other bodies in India to assure quality in professional education are:

- All India Council for Technical Education (AICTE)
- National Council for Teacher Education (NCTE)
- Medical Council of India (MCI)
- Indian Nursing Council (INC)
- Bar Council of India (BCI)
- Rehabilitation Council of India (RCI)
- Distance Education Council (DEC)
- Indian Council for Agricultural Research (ICAR)

**E-learning**

- The Institute of Higher Education Policy (IHEP), USA based on a comprehensive study identified 24 benchmarks for quality e-learning.

Thus, quality is an overriding principle for all forms of education –

- Face-to-face
- Distance
- Online

**Higher education institutions should consider assuring all round quality in order to develop a culture of quality**
Key challenges to Accreditation in India:

- Capacity
- Multiple Inspection Agencies
- Compliance
- Value
- Credibility
- Evolution of benchmarks
Sustaining Quality

- QA is the responsibility of everyone in an educational institution.
- QA should be a continuous and ongoing process.
- It should not be considered as a onetime activity for accreditation alone.
- QA is maintained in the following ways:
  - Self-evaluation/self-study
  - Best Practices Benchmarking
  - External Quality Monitoring
  - Market-driven approach
Standards for the internal quality assurance of higher education institutions

- Mobilization of resources for institutional development
- Student Quality — Number of applications, background, Time to complete degree, Proportion undertaking practical training and R&D, Employment & Salaries, Perceived reputation of graduates and alumni, Proportion of foreign students, Number becoming entrepreneurs
- Quality of Faculty — Number of applications, Publication records, Sponsored research, continuing education activities, Professional society and public service, involvement, Quantum of practical experience, Effectiveness of student counselling, Faculty career satisfaction levels
- Learning resources and student support
- Information systems
- Public information
Standards for the external quality assurance of higher education institutions

- Use of internal quality assurance procedures
- Development of external quality assurance processes
- Criteria for decisions
- Processes fit for purpose
- Reporting
- Follow-up procedures
- Periodic reviews
- System-wide analyses
Expectations from Institutes on Quality

- To improve the education quality assurance and assessment.

- Should ensure that they - Collect, Analyze and Use relevant information for the effective management of their programmes of study and other activities.
Thank You!!