

A review of Quality Factors of Higher Education

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Abstract: In developing countries, higher education and particularly university education is recognized as a key force for modernization and development. This has caused an increase in the demand for its access, accompanied by a number of challenges. The aim of this paper is to identify the quality factors of higher education. The study based on parameters on qualitative & quantitative; within the higher education sector insights into comparative evaluations of quality dimensions. Higher educational quality dimensions are Curricular Aspects; Teaching-Learning and Evaluation; Research, Consultancy and Extension; Infrastructure and Learning Resources; Student Support & Progression; Organization Management and Healthy Practices, its respected factors.

Keywords: Higher Education in India, quality determinants, service quality dimensions, quality teaching.

I. Introduction

Higher education is fundamental importance of the country, as it is a powerful tool to build knowledge-based society of the 21st century [1]. India's higher education system, originally designed to serve the selected, will now have to serve the people. Higher education is generally understood to cover teaching, research and extension. Scientific, technological advancement and economic growth of a country are dependent on the higher education system as they are on the working class. Innovation and evaluation are required and understanding that change will be essential [2]. Government of India has set a target of increasing the Gross Enrolment Ratio (GER) from the present level of about 12% to 15% by the end of XI Five Year Plan and to 30% by the year 2020. Various new initiatives have been taken during XI Five Year Plan to increase the GER. The demand of higher education and the magnitude of planned reforms over the next ten years in India will provide the largest opportunity in the world for international higher education institutions and educational businesses.

1.1 Structure of Higher Education in India

All the institutions of higher education in the country are divided into three categories [1]:

1.1.1 Category I: University & University Level Institutions – All Institutions which are established

- Under central act, a Provincial act or a state act (Central University/State University).
- As an institution deemed to be a university under section 3 of the UGC Act 1956 e.g. Deemed University.
- As an institution specially empowered by an Act of Parliament to confer or grant degrees e.g. Institution of National Importance (IITs, NITs etc.), Institutions set up by other Central Ministries by an Act of Parliament such as NIFT.

1.1.2 Category II: Colleges/ Institutions affiliated to University - This constitutes

- Colleges affiliated with the University (Constituent/ University College, Affiliated Colleges including Autonomous Colleges).
- Institutions for which degree is awarded by the University but the Institution is not affiliated with the University.
- PG Centers of the University.
- Off-Campus Centers/ Constituents Units of Institutions deemed to be University.

1.1.3 Category III: Institutions NOT affiliated to University – These Institutions are termed as Stand-Alone Institutions for the purpose of the survey. These are the institutions which are providing PG Diploma/ Diploma degree but not affiliated or recognized by any University/ University Level Institutions. However, their courses are recognized/ approved by one or the other Statutory Body such as All India Council for Technical Education (AICTE), Indian Nursing Council etc. This constitutes

- All such institutions which are conducting PG Diploma/Diploma level courses recognized by AICTE but not affiliated to any University.
- Teacher Training Institutes running Diploma level courses approved by National Council of Teacher Education e.g. District Institute of Education & Training (DIETs)
- Polytechnics
- Nursing Institutes running GNM courses approved by Indian Nursing Council.
- Institute of Chartered Accountant of India
- Institute of Company Secretary
- Actuarial Society of India

2. Higher Education Quality & Challenges

Higher education is generally understood to cover teaching, research and extension. Kothari Commission listed the following roles of the universities:

- To seek and cultivate new knowledge, to engage vigorously and fearlessly in the pursuit of truth, and to interpret old knowledge and beliefs in the light of new needs and discoveries.
- To provide the right kind of leadership in all walks of life, to identify gifted youth and help them develop their potential to the full by cultivating physical fitness, developing the powers of the mind and cultivating right interests, attitudes and moral and intellectual values.
- To provide the society with competent men and women trained in agriculture, arts, medicine, science and technology and various other professions, who will also be cultivated individuals, imbued with a sense of social purpose.
- To strive to promote quality and social justice, and to reduce social and cultural differences through diffusion of education.
- To foster in the teachers and students; and through them in the society generally, the attitudes and values needed for developing the 'good life' in individuals and society [3].

Higher Education Quality control has been superficial and diluted by the exercise of academic freedom [4]. The features of quality of higher education are considering the fact that quality requires teamwork [5]. Providers (funding bodies and the community at large), students, staff and employers of graduates are very important for higher education quality. The dimensions of higher educational qualities are product, software and service [6].

Higher education system grows and diversifies; society is increasingly concerned about the quality of programmes. Much attention is given to public assessment and international rankings of higher education institutions. However these comparisons tend to overemphasize research, using research performance as a yardstick of institutional values. If these processes fail to address the quality of teaching, it is in part because measuring teaching quality is challenging.

In the face of significant progress over the last ten years on the education quality of Indian higher education has four broad challenges [2]:

- **The supply-demand gap:** India has a low rate of enrolment in higher education, at only 18%, compared with other countries. There is enormous unmet demand for higher education. By 2020, the Indian government aims to achieve 30% gross enrolment, which will mean providing 40 million university places, an increase of 14 million in six years.
- **The low quality of teaching and learning:** The system is affected by issues of quality in many of its institutions: a chronic shortage of faculty, poor quality teaching, outdated and rigid curricula and training, lack of accountability and quality assurance and separation of research and teaching.
- **Constraints on research capacity and innovation:** With a very low level of Ph. D. enrolment, India does not have enough high quality researchers; there are few opportunities for interdisciplinary and multidisciplinary working, lack of early stage research experience; a weak ecosystem for innovation, and low levels of industry engagement.
- **Uneven growth and access to opportunity:** Socially, India remains highly divided; access to higher education is uneven with multidimensional inequalities in enrolment across population groups and geographies.

The above transformation is being driven by economic and demographic change by 2020 India will overtake China as the country with the largest tertiary-age population. India will be the world's third largest economy, with a correspondingly rapid growth in the size of its middle classes. Currently, over 50% of India's population is younger [2]. Quality in higher education as an outcome, a property or a process is not necessarily in clash, and can potentially be used by higher education institutions as complementary.

II. Research Methodology

The online databases were used to identify the articles and research papers published in various journals, magazines, reports and newspapers relevant to the objectives of this paper. Formal search techniques were used. The search strategy was designed to concentrate on service quality dimensions, quality determinants, quality teaching and higher education quality factor in India, relevant to service quality measurement in higher education.

Dimensions of Higher Educational Service Quality

Extensive literature review was carried out to identify the key variables of service quality, various research papers have attempted to define the quality of services on trade but it is not possible to arrive at clear-cut conclusion and still it is a doubtful issue because of certain attributes of services. The service attributes contributing more towards customer satisfaction may vary from service to service depending on its nature and

scope. Different dimensions of service quality are used for different institutions. Researchers agree that there is no single dimension which can be applicable for all the service sectors [7], [8]. They also agree that customers must be the determinant of service quality dimensions rather than the management [7], [8], [9], [10]. In the area of higher education, the adoption of quality control has been superficial and diluted by the exercise of academic freedom [4]. It is usually difficult to apply the features of quality to higher education considering the fact that quality requires teamwork [5]. Due to this reason, the researchers have included only those important dimensions in the survey which matters most. A summary of various studies conducted for different dimensions of higher educational service quality considered is presented below in table 1.

Table: 1 Different dimensions of Higher Educational Service Quality

S. N.	Author	Dimension
	Parasuraman et al.[9]	Access Competence Courtesy Communication Credibility Reliability Responsiveness Tangibles. Security Understanding the customer
	Garvin [12]	Aesthetics Conformance Durability Features Performance Perceived quality Reliability Serviceability
	Gronroos[14]	Attitudes and behavior Access and flexibility Professionalism and skill Reliability and trustworthiness Recovery Reputation and credibility
	Joseph Juran [15]	Structural annual improvement plans, Training for the whole organization Quality directed leadership.
	Gronroos[16]	Technical Quality Functional Quality Corporate Image
	Lehtinen and Lehtinen [17]	Physical Quality Interactive Quality Corporate Quality
	Parasuraman and Berry [18]; Zeithaml et al. [19] ; Cronin and Taylor [20]	Assurance Empathy Reliability Responsiveness Tangibles
	Ronald Barnett [21]	Production of qualified human resources Training for a research career The efficient management of teaching provision. A matter of extending life chances
	Green and Harvey [22]	Consistency Exceptional Purpose Transformative. Value for money
	Carney [24]	Student Qualification (Academic) Student Qualities (Personal) Faculty-Student Interaction Quality Instruction (Faculty) Variety of Courses Academic Reputation Class Size Career Preparation Athletic Programs Student Activities (Social Life) Community Service Facilities and Equipment Location

		Physical Appearance (Campus) On Campus Residence Friendly and Caring Atmosphere Religious Atmosphere Safe Campus Cost/Financial Aid
	Owlia and Aspinwall [25] Tsinidou Maria, et al. [3]	Tangibles: Sufficient equipment/facilities, modern equipment/facilities, ease of access, visually appealing environment, support services (accommodation, sports) Competence: Sufficient (academic) staff, theoretical knowledge, qualifications; practical knowledge, up to date, teaching expertise, communication. Attitude: Understanding student's need, willingness to help, availability for guidance and advisory, giving personal attention, emotion, courtesy. Content: Relevance of curriculum to the future jobs of students, effectiveness, containing primary knowledge skills, completeness, use of computer, communication skills and team working, flexibility of knowledge, being cross-disciplinary Delivery: Effective presentation, sequencing, timeliness, consistency, fairness of examinations; feedback from students, encouraging students Reliability: Trustworthiness, giving valid award, keeping promises, match to the goals, handling complaints and solving problems.
	UNESCO Report [27]	To prepare students for research and teaching. To provide highly specialized training courses adapted to the needs of economic and social life. To be open to all, so as to cater to the many aspects of lifelong education in the widest sense. To promote international cooperation through internationalization of research, technology, networking, and free movement of persons and scientific ideas.
	Athiyaman [28]	Teaching Students Well Availability of Staff for Student Consultation Library Services Computing Facilities Recreational Facilities Class Size Level and Difficulty of Subject Content Student Workload
	Lee et al. [29]	Overall impression of the university/institute Overall impression of the education quality
	Hadikoemoro[30]	Academic Services Readiness and Attentiveness Fair and Impartial Tangible General Attitudes
	Largosen et al.[4]	Absolute Relative Process Culture.
	Sangeeta et al. [31]	Competence: Appropriate physical facilities/infrastructure, faculty's expertise, faculty's teaching ability and skills, sufficient faculty/support staff. Attitude: Effective problem solving, orientation towards achievement, healthy competitive and collegial environment. Content: Learn to apply, clarity of course objectives, relevance of curriculum to future needs, flexibility of knowledge being cross disciplinary. Delivery: Ease of contract/access to teachers and administrative staff, effective classroom management, adequate and appropriate classroom. Reliability: Clearly specified values and aims, consistency of practice, clearly specified policies/guidelines, fairly and firmly-enforced rules and regulations, adherence to course objectives.
	Brooks [32]	Reputation Faculty Research Productivity Student Educational Experiences and Outcomes. Counts of degree issued, financial support, fellowship grant support, teaching assistantship. Timeline of their programme, proportion of students, completing their intended degree programme. Student Satisfaction: Classroom, co-curricular activities, interaction with faculty and peers, instructions, campus life. Student Outcome: Assessment of learning and career outcomes of educational programs.
	Prasad [33]	Contribution to national development Fostering global competencies amongst students Inculcating value system in students Promoting the use of technology Quest for excellence

	Firdaus Abdullah [34]	Academic aspect Access Non academic aspect Programme issue Reputation Understanding
	Landrum et. al. [36]	Service Quality Information Quality System Quality Users Involvement
	Annamdevula and Bellamkonda [39]	Administrative services Academic facilities Campus infrastructure The studied measured the Unidimensionality of the constructs and finds significant relationship between teaching and course content, Support services

Quality Determinants in Higher Education

Quality teaching includes a wide range of quality factors that are grouped under three major categories:

- **Institution-wide and quality assurance policies:** including global projects designed to develop a quality culture at institutional level, like policy design, and support to organization and internal quality assurance systems.
- **Programme monitoring:** including actions to measure the design, content and delivery of the programmes.
- **Teaching and learning support:** including initiatives targeting teachers, students and work environment [40].

The deployment of policies for the quality of teaching also revolving point of an institution’s capacity to strike a balance between technical aspect of qualities support and the fundamental issues raised. Clearly, goals related to the quality of teaching can be neither reduced to, nor achieved through, mere technical improvements or extensions of existing mechanisms [2].

Table: 2 Implications for institutional actors of an engagement in quality teaching.

S. N.	Actors	Implementations
	Teachers	Exploit the new technological tools to improve student-to-teacher interaction and to better assess student progress Link practices, methods and tools with the institutional global quality teaching policy Collaborate with the quality units in the design and implementation of curricula Take the opportunity to reflect about their own actions and role in the enhancement of quality, gaining commitment to reflective practice and resulting adaptation and innovation Consider the possible consequences in a teacher’s career progression
	Institution Leaders	Sustain quality teaching in a continuing, effective and explicit way Motivate the head of departments Combine and balance top-down with bottom-up approaches Ensure adequate time, people, funding and facilities for planning and implementing quality teaching initiatives Engage the whole community, including administrative staff and students
	Students	Collaborate actively with teachers and leaders in the definition of the initiative and of quality teaching concept itself, keeping the interaction alive and raising concerns about teaching, learning environments, quality of content and teacher attitudes Use associations and students group to bring new ideas and influence the institutional policy on quality teaching
	Quality Teaching Units	Ensure that the institutional policy on quality teaching is understood and implemented properly by faculty members Disseminate a quality culture in the whole institution and facilitate collaborative work and information fluidity Reconsider their reflection role in addition to the more technical one Combine research in educational sciences with the definition of practices Experiment to develop new measurement and evaluation methods Be receptive and enhance communication tools to gather teacher and student suggestions Keep an open-oriented approach towards external inputs and good practices examples, creating a communication network with quality assurance agencies and external partners

III. Result & Discussion

Higher education also provides opportunities for lifelong learning, allowing people to upgrade their knowledge and skills from time to time based on the public needs. Extensive literature review was carried out to identify the key variables of service quality. The study report should conform to the criteria for dimension and key factors of Higher Educational Quality shown in Table: 3.

Table: 3 Dimension and key factors of Higher Educational Quality

S.N.	Dimension	Factors
	Curricular Aspects	Goal Orientation Curriculum Development Programme Options Academic Flexibility Feedback Mechanism
	Teaching-Learning and Evaluation	Admission Process Catering to Diverse Needs Teaching-Learning Process Teacher Quality Evaluation of Teaching Evaluation of Learning Evaluation Reforms
	Research, Consultancy and Extension	Promotion of Research Research Output Publication Output Consultancy Extension Activities Participation in Extension Linkages
	Infrastructure and Learning Resources	Physical Facilities Maintenance of Infrastructure Library as a Learning Resource Computers as Learning Resources Other Facilities
	Student Support & Progression	Student Profile Student Progression Student Support Student Activities
	Organization Management	Goal Orientation and Decision-Making Organization Structure, Powers and Functions of the Functionaries Perspective Planning Human power Planning and Recruitment Performance Appraisal Staff Development Programmes Resource Mobilization Finance Management
	Healthy Practices	Total Quality Management Innovations Value-Based Education Social Responsibilities and Citizenship Roles Overall Development Institutional Ambience and Initiatives

IV. Conclusion

The paper identified the different quality factors of higher education, through qualitative and quantitative studies. The significance of this paper lies in its integration of the extant theories of higher educational service quality dimensions, determinants and factors as a theory building efforts. This study measure higher educational quality dimensions and factors to achieve desirable validity.

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