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RESEARCH ARTICLE

Critical Review on Issues and Challenges to Measure Service Quality in Higher Education

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ABSTRACT

Service quality has got increased considerable attention within the education sector. Efforts to understand and assess the service quality in higher education have been undertaken in the recent years. The conceptualization of service quality, its relationship to the satisfaction, value constructs and methods of evaluation have become a central theme of education sector. Numerous studies have done in this area with adopting generic service quality models, but little work has been concentrated on exploring the dimensions to measure service quality in higher education in the standpoint of total environment as experienced by students being the primary customers. The paper focuses on recent studies (models) developed to measure service quality in higher education and discussed various factors should be considered while developing a model for measuring the same with provided a conceptual framework.

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INTRODUCTION

Education builds human so it builds the nation. Higher education plays a vital role in the development of both people and societies as it enhances social, cultural and economic development. It promotes active citizenship and inculcates ethical values to serve both public and private purposes. Changing higher education environment, increasing expectations of multiple stakeholders and impact of globalization and internationalization excite the ways to evaluate and increase the studies of quality in higher education. In many countries, at national level, quality assurance agencies, regulatory and accreditation bodies are responsible for external quality evaluation of studies. At institutional level, quality evaluation most often carried out by the student (Abdullah, 2006a). Evaluating quality by all stakeholders with views on all the aspect of the institution also equal important. The paper discusses the specific issues in measuring service quality in higher education with critical review of recent major studies carried out on service quality in higher education (Sheffield Hallam University, 2003; Clewes, 2003; Abdullah, 2006b; Mahapatra and Khan, 2007; Senthilkumar and Arulraj, 2011). Reviewing the scientific literature in service quality of higher education, it is noted that various approaches must consider while proposing a model to measure service quality in higher education. The article presents the problems consisting of the following question: "what are the approaches must consider for developing a model to measure service quality in higher education?" The aim of this paper is to present inclusive factors to theorize the various issues and challenges in developing an instrument to measure service quality in higher education.

Service Quality in Higher Education

Quality in higher education may even be more difficult to define than in most other sectors. It is vital to study the meaning of quality in

higher education, although some fascinating studies exist (Harvey *et al.*, 1993; Srikanthan and Dalrymple, 2003) still it is ambiguous. Through extensive literature it is identified that there exists a gap in the research pertaining to higher education and evaluation of service quality. Quality in higher education follows the general definitions of quality; "excellence in education", "value addition in education", "fitness of educational outcome and experience for use", "defect avoidance in the education process", "meeting or exceeding customer's expectations of education and "continuous improvement". Education quality depends on perspectives of different stakeholders.

The indicators of education quality are often the satisfaction of internal and external stakeholders. From the support of literature evidence, dimensions of quality in higher education vary in level of importance for different groups of customers. Obviously, in higher education, the definition of customer is quite different from that in manufacturing or general services since groups such as students, employers, academic staff, government and families are all customers of the education system with a diversity of requirements (Owlia and Aspinwal, 1996). The quality depends on other factors like institutional, public and individual factors. Institutional factors refer to study programs, study process flexibility, inventory and financial support for students. Public factors include institution reputation, image, rating position and individual factors covers attitudes to study, lecturers and university fellows, expectations to studies and its fulfillment level (Katiliūtė and Kazlauskienė, 2010). Higher education has been increasingly recognized as a service sector and it must struggle to understand the expectations and needs of multiple stake holders they include students, parents, faculty, administrators, government, professional bodies and society.

Literature review

The service quality in higher education was examined by Mahapatra and Khan (2009), Firdaus (2006b), Senthilkumar and Arulraj (2009) and Cronin and Taylor (1992). The previous studies tried to bring the

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dimensions of service quality in higher education but no single model covers all the dimensions which influences overall service quality in higher education. Quality of service largely depends on human behavior, the quality dimensions of measuring instrument differ in different service settings. No single instruments can measure quality of all the service sectors because each sector has their own unique dimensions. For example 'empathy' and 'responsiveness' are more significant in health care sector, where as 'reliability' in transportation and 'tangibility' in hotel services are more important. It is highly necessitated to identify related dimensions for individual service sector. In education sector, intangibility and lack of physical evidence of service makes perceptions of service quality a complex task and create difficulties for analysis (Mahapatra and Khan, 2007).

There is an extensive literature on the causes and consequences of quality education (Sangeeta *et al.*, 2010; Chua 2004; Blass and Weight, 2005; Cornuel, 2005; Oliveira and Ferreira, 2009). Today total quality management and quality assessment are becoming very important issues. Many researchers have conducted study to examine these issues and they developed models to measure service quality in education (Mahapatra and Khan, 2007; Abdullah, 2005; Clewes, 2003; Senthilkumar and Arulraj, 2009).

Parri (2006) discussed various approaches to the concept of quality of higher education and the essence of quality assurance in higher education. Author divided the quality assurance into internal and external according to customers of education and their opportunities. External quality assurance is necessary in order to prove to the public that the goals set by the institutions will be achieved whereas internal or institutional quality assurance aims at institutional development and assessment of internal accountability.

In higher education, quality measurement is rising with increased importance on education accountability to its stakeholders. There are many gray areas in the issue over how to measure service quality in higher education. Gap model provides base to evaluate service quality with the difference of perceptions and expectations. The argument regarding the gaps of SERVQUAL (Parasuraman *et al.*, 1988), SERVPERF (Cronin and Taylor, 1992) and Evaluated Performance (EP) (Teas, 1993) approaches to measuring service quality is still unresolved as there are valid issues and propositions. The general view appear to be that, although SERVQUAL, SERVPERF and EP were designed as standard measures of service quality which have cross-industry applicability, it is imperative to view the instruments as basic "framework" that often necessitate modification to fit into the specific application of context. Without doubt the use of these approaches as a means of measuring service quality throughout the marketing (service) sectors may have been tested with some degree of success, but this may not be the case for other service sectors, namely, higher education.

Sheffield Hallam University (2003) produced the Higher Education Excellence Model which has been based on, adapted and developed from the 'EFQM Public and Voluntary Sector Excellence Model', 2003 version. It has been fully endorsed by the (EFQM) European Foundation for Quality Management. The Higher Education Excellence Model assesses the excellence with nine criteria and using RADAR logic.

Debbie Clewes (2003) developed a conceptual model of service quality in higher education. Three clearly differentiated stages in the postgraduate students' service-quality experience emerged. First, the pre-course position, which is centered on service expectations, second, the in-course experience and, third, post-course service value assessment. These stages are linked and evolve over time as the proposed student-centered model of service quality in postgraduate higher education.

Abdullah (2006b) proposed HEDPERF (Higher Education PERFORMANCE), a new and more comprehensive performance-based measuring scale that attempts to capture the actual determinants of service quality within the higher education sector. The 41-item instrument has been empirically tested for unidimensionality,

reliability and validity using both exploratory and confirmatory factor analysis. Mahapatra and Khan (2007) evolves a systematic integrated approach for modeling customer evaluation of service quality applied to technical education system through a survey instrument known as EduQUAL, specifically proposed for the education sector, is used to measure the satisfaction level of four key stakeholders they are students, alumni, recruiters and parents. On the other hand, recently Senthilkumar and Arulraj (2009) have been worked on this issue and developed a research model "SQM-HEI" (Service Quality Measurement in Higher Education in India) which measures the quality of higher education. The model focuses on three dimensions; Teaching Methodology (TM), Environmental change in Study factor (ECSF), Disciplinary Action (DA), and Placement as the mediating factor and the outcome as the quality education. Apart from the above models, many researchers have been adopted "SERVQUAL" model into education sector with modifications (Chua, 2004; Oliveira and Ferreira, 2009; Pariseau and McDaniel, 1997; Cuthbert, 1996). Parasuraman, Zeithamal, and Berry developed an instrument called "SERVQUAL" for quantifying customers' assessment of service quality performance. The SERVQUAL instrument has evolved to become the most commonly used service quality measurement instrument in education. Although globally accepted and adapted in various service organizations, the SERVQUAL instrument is not without criticism.

Although generic instruments have been tested with some degree of success in wide-ranging service industries, but their duplication in higher education sector is still hazy. Apart from this many researchers have done study to measure the service quality in higher education with modification of service excellence models and they have mentioned different views to measure the same. From the existing literature summarized above, (see Table 1) the study identified that SERVQUAL, HEDPERF, EduQUAL, SQM-HEI and other similar studies are empirically tested on academic aspects & non academic aspects. With all these seemingly incompatible problems associated, perhaps the time has come to conceal the existing instruments and attempt to reconstruct or redefine service quality from a new and different perspective. Thus, the generic measures of service quality may not be a totally adequate instrument by which to assess the perceived quality in higher education, although their impact in the service quality domain is irrefutable. Service quality has attracted considerable attention within the higher education sector, but despite this, little work has been concentrated on identifying its determinants from the standpoint of students being the primary customers.

Thus, it would seem rational to develop a new measurement scale that incorporates not only the academic components, but also aspects of the total service environment as experienced by all the stakeholders. As such, there is still no universal consensus on how best to manage quality within HE and a variety of quality management models have been implemented in different HEIs (Martens and Prosser, 1998).

Inclusive factors to consider while develop a model

Based on the literature evidence it can be said that the development of instrument to measure service quality in higher education is highly intricate task which should consider below mentioned important facets.(see Fig.1).

Multiple stakeholders

Every stakeholder in higher education has a particular view of quality which is dependent on their specific needs. Generally speaking, stakeholders are individuals or entities who stand to gain or lose from the success or failure of a system or an organization. All the stakeholders are part of the system, some are service providers and some are service receivers whose divides into internal and external stakeholders. Internal stakeholders are directly involved in the system i.e. students, academic staff and non-academic staff. Non-academic staff includes administrative staff, technical/support staff and university management. The external stakeholders are who benefited

Table I. Major (recent) Studies on Service Quality in Higher Education

Sl. No.	Model	Developed by	Year	Country	Service Quality Dimensions
1.	Higher Education Excellence Model	Sheffield Hallam University	2003	UK	Leadership, Policy and Strategy, People, Partnerships and Resources, Processes, Customer Results, People Results, Society Results, and Key Performance Results
2.	Student-Centered Model of Service Quality in Higher Education.	Clewes	2003	UK	Pre-course position, In-course experience and Post-course service value assessment
3.	HedPERF	Abdullah	2006	Malaysia	Non-academic aspects, Academic aspects, Reputation, Access, Program Issues and Understanding
4.	EduQUAL	Mahapatra and Khan	2007	India	Learning outcomes, Responsiveness, Physical facilities, Personality development and Academics
5.	SQM-HEI	Senthilkumar and Arulraj	2009	India	Teaching Methodology (TM), Environmental change in Study factor (ECSF), Disciplinary Action (DA)

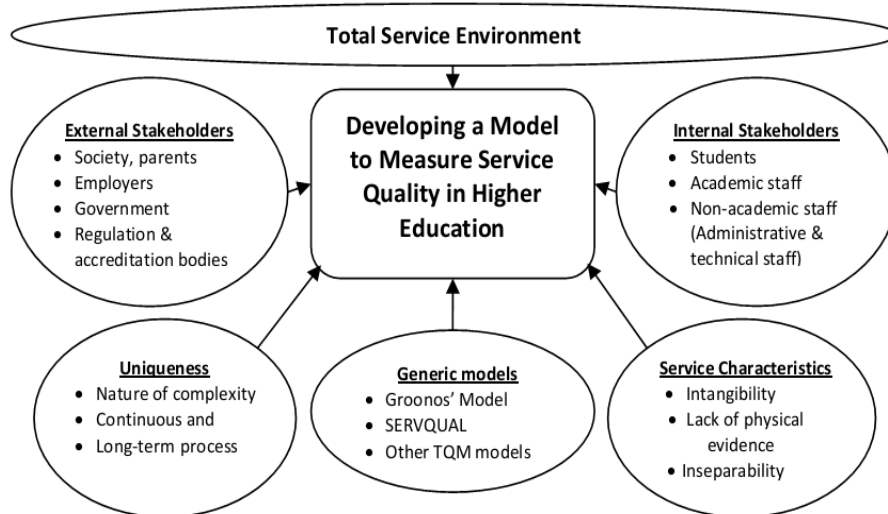


Fig. 1. A framework shows Inclusive factors to consider while develop a model

from the ultimate output of the system. The output may be skills, ability, knowledge and capabilities of the students to perform particular job. They include employers, parents, society, government, accreditation and regulatory bodies. A complete education system has to provide quality education to satisfy every stakeholder needs. The ultimate solution to satisfy every stakeholder is providing aggregate quality education with understanding needs and expectations of each stakeholder.

Consider total service environment

Service quality has attracted considerable attention within the higher education sector, but despite this, little work has been concentrated on identifying its determinants from the standpoint of students being the primary customers. Studies have done with mainly consideration of academic aspect, less importance for other components like non-academic, physical, institutional, culture, climate and overall service environment as experienced by the student and other stakeholders. Thus, it would seem rational to develop a new measurement scale that incorporates not only the academic components, but also aspects of the total service environment as experienced by all stakeholders.

Using generic models to measure service quality in higher education

Compared to conceptual models developed for products and general services, only few published work was found related to quality dimensions in higher education. Quality in higher education may even be more difficult to define than in manufacturing or service sectors. This is certainly true for higher education since most quality attributes cannot be seen, felt, or touched in advance; production and

consumption of the service are inseparable because personal contact (e.g. between students and lecturer) plays an important role; and quality varies markedly in different circumstances (Owlia and Aspinwal, 1996). With this difficulty many empirical studies have done with adopted generic models to measure service quality in higher education sector (O'Neil and Palmer, 2004; Cuthbert, 1996; Gallifa and Batalle, 2010). Education quality is a multi-dimensional concept and differs from general services that we cannot easily assessed by using generic models. But set of attributes found from discussing the general quality and services dimensions provided a basis for further investigation.

Uniqueness

Involvement of Multiple stakeholders with different needs and continues and long term processes are important indicators which shows uniqueness of higher education sector from other service sectors. Higher education system has high complexity, it consists many components that interact at multiple layers at different time frames. The multiplicity of these components and diverse nature of stakeholders who range from students and their parents to their elected representative bodies, are all essential components of the system's functioning and must be part of any attempt to support, reform or improve it. In their complexity, education systems are similar to other social organizations, and in fact, share aspects of interaction among components with most physical systems of global importance.

Continuous and Long-term process

Continuous and Long-term process is another important feature which differentiates education service system with other service

systems. In other service systems customer may encounter service with provider for certain limited time. But in education systems as a primary customer, student seizes service for long period that minimum one year to maximum six years. So, the overall satisfaction can be measured after the continuous and long period only.

Service Characteristics

Along with long term process, customer needs to participate at every level of service. In other services, customer may not participate in the service process rather he just enjoys the service offered by the provider. In education service system customer must voluntarily participate in the system. The output of education system purely *intangible* (Shostack, 1977) and also it has no *physical evidence* (Mahapatra and Khan, 2007). The output of the education system could be skills, capability, knowledge of the students which highly difficult to measure and are not having *physical evidence*.

Conclusion -Recommendations

“The institutions must work to obtain a standard of quality that exceeds all the stakeholders’ expectations and needs.” (Pereira, 2004). This paper therefore draws on service quality research undertaken within higher education and quality models especially developed for measuring service quality in higher education and provide an analytical review of the different approaches to consider while developing a model to measure service quality in higher education. There has been a consensus on the importance of service quality issues in higher education, the identification and implementation of the right measurement instrument, however, it remains a challenge for those practitioners who aim to gain a better understanding of the quality issues with an impact on multiple stakeholders’ experiences.

With this extensive review, the issues and challenges to measure service quality has been addressed and the study also provides recommendations on developing a comprehensive model to measure overall service quality in the perspectives of all internal and external stakeholders and total service environment of higher education. Since every stakeholder has different role, purpose and need to participate in the system, it is necessary to develop individual model (instrument) to measure service quality in each stakeholder’s perspective. It helps to measure each stakeholder’s satisfaction which helps to evaluate overall satisfaction of the system. Hence, it may be worthwhile to develop measuring instruments from different perspectives of stakeholders.

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