The Service Quality Scale Debate:
A Tri-Instrument Perspective for
Higher Education Institutions

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Service quality issues, over the years, have become an important consumer trend and have gained ground in service marketing literature in general, and the extant literature on higher education, in particular. Despite the fact that service quality is more difficult to measure than the quality of goods, several instruments for measuring service quality have been developed and validated, such as SERVQUAL, SERVPERF and HEDPERF. This article analysed three instruments for measuring service quality: SERVQUAL, SERVPERF, HEDPERF and compared them in terms of strengths and weaknesses within the context of higher education institutions. Although, both SERVPERF and HEDPERF instruments seem to have some reasonable measure of stability over the disconfirmation perspective of SERVQUAL scale, however, the growing competitions in the service industry has made SERVQUAL to be better because of its diagnostic ability. Using SERVQUAL to evaluate service quality would enable managers to identify and improve on those dimensions that are negatively perceived by customers. We conclude that the SERVQUAL scale is more robust than either of the performance-only SERVPERF and restrictive-oriented HEDPERF scales.

Keywords: *Service quality, SERVQUAL, SERVPERF, HEDPERF, Higher Education Institutions*

JEL Classification: *M10, M31*

1. Introduction

There is a considerable debate in the specialty literature on service quality. Many researchers (Parasuraman *et al.,* 1985; Carman, 1990; Bolton and Drew, 1991a, b) agree that service quality is an evasive concept. Lewis and Booms (1983, p.100) defined service quality as a "measure of how well a service level delivered, matches the customers' expectations". This definition explains that service quality is an attitude of

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overall judgment on service superiority (Ford et al., 1999). Parasuraman *et al.* (1991) "point out that service quality is an attribute that is extrinsically perceived based on the customers' experience of the service encounters". However, Jaiswal (2008) noted that "service quality is not only involved in the final product or service, but also in the production and delivery process, which requires the measurement of customers' perceptions after consumption". Gronroos (2007), using the total perceived service quality model, compared between customer expectations of the service and their experience after receiving the service. In the study, he posits that customers are really looking for two service quality dimension to evaluate: (1) technical quality, i.e. what has been delivered by the service provider or the customer really get; and (2) functional quality, i.e. the ways and manners in which the services are delivered or how the services are actually delivered (Gronroos, 2007). It can be concluded that both dimensions affect the image of the service provider and determine how quality is perceived by different customers of the organisation (Gronroos, 2007). According to Chang (2008) the concept of service quality should be generally approached from the customers' perspectives, because the customers have different values, grounds of assessment and circumstances.

2. Service Quality in Higher Education Institutions

Service quality, over the years, has become an important consumer trend (Parasuraman *et al.* 1985) and has gained ground in service marketing literature in general, and the extant literature on higher education institutions (HEI), in particular (Tan and Kek, 2004; Telford and Masson, 2005; Smith *et al.,* 2007). The constructs of quality, as discussed in HEI literature, was based on perceived quality (Fitri *et al.,* 2008). Perceived quality, according to Zeithaml *et al.* (1987) and Zammuto *et al.* (1996) is defined as the "consumer's judgment about an entity's overall experience or superiority". Similarly, Parasuraman *et al.* (1994, p.43) concluded that "consumer perceptions of service quality result from comparing expectations prior to receiving the service, and their actual experience of the service". Perceived quality represents a form of attitude, that is similar to satisfaction, though not the same. Moreover, perceived quality is the result of an evaluation and comparison between consumers' expectations in relation to a service with its performance perceptions (Rowley, 1996).

As described by Cuthbert (1996), the higher education sector exhibits all the characteristics of service provider: "it is intangible and heterogeneous, meets the criterion of inseparability, by being produced and consumed at the same time, satisfies the perishability criterion and assumes the students' participation in the delivery process". Thus, Cuthbert (1996) posits that "service quality is directly applicable to higher education. He concluded that higher education institutions are increasingly attracting more attention to service quality initiatives mainly due to the social requirement for quality evaluation in education and the competitiveness in the higher education market place." Despite the fact that service quality is more difficult to measure than the quality of goods (Parasuraman *et al.,* 1985), several instruments for measuring service quality have been developed and validated, such as SERVQUAL (Parasuraman *et al.,* 1985, 1988, 1991, 1994; Zeithaml *et al.,* 1990; Shahin, 2005), SERVPERF (Cronin and Taylor, 1992; Carrilat *et al.,* 2007; Abdullah, 2005; Awan, *et al.,* 2008); HEDPERF (Firdaus, 2006a; 2006b). However, the SERVQUAL instrument has been widely used (Shekarchizadeh *et al.,* 2011; Zeshan, 2010) in higher education, to measure consumers' expectations and their perceptions of service quality. Arising from the gaps model of service quality, Parasuraman *et al.* (1985) proposed the SERVQUAL instrument as a standardized tool for measuring service quality based on five dimensions: tangibles, reliability, assurance, empathy and responsiveness. It was tested for reliability and validity in multiple service sector settings, including higher education institutions (HEIs) and it was found to be a concise multi–item scale with good reliability (.92) and validity (Cuthbert, 1996; Souther and McNeil, 1996; Saaditul *et al.,* 2000).

3. Service Quality Measurement Instruments

Service quality has for some time received increased attention in service marketing literature. Although scholars have agreed on the importance of service quality issues in higher education, the identification and selection of the correct measurement instrument is still a challenge (Brochado, 2009). Literature review has revealed that the most popular instruments used to measure service quality are SERVQUAL (Parasuraman *et al.,* 1988, 1991) and SERVPERF (Cronin and Taylor, 1992). But recently, an instrument related to HEIs has been proposed. Firdaus (2006a) introduced the HEDPERF scale to measure higher education performance. The HEDPERF scale, though higher education specific, has not been popularized, thus affecting its reliability and generalisation. Though, the HEDPERF model lacked wider

acceptance, even in the education industry, it also lacked the flexibility of applications based on types and characteristics of institutions (Brochado, 2009).

3.1. SERVQUAL

The SERVQUAL (or service quality) model, which is one of the most widely adapted and used service quality instruments, has its theoretical foundation in the Perception (P) minus the Expectation (E) measures, which for the GAP model. The GAP model uses 22 scales for expressing consumer expectations and their perceptions related to the performance of a service. Zeithaml *et al.,* (1996, p. 49) said: "customers' expectations are beliefs about service delivery as standards or reference points against which performance is judged", whereas customers' perceptions are "subjective assessments of actual services experienced in the interaction process with service providers" (Zeithaml *et al.,* 1996, p. 49). Measuring the difference between expectations and perceptions using the SERVQUAL gap scores is useful for assessing levels of service quality (Shahin, 2005).

Parasuraman *et al.* (1988) argue that, with modification, "SERVQUAL can be adapted to any service organisation. They further claimed that information on service quality gaps can help managers diagnose where performance improvement can best be targeted". The SERVQUAL instrument is therefore adopted in this study. SERVQUAL scale conceptualizes service quality in five dimensions: tangibles, reliability, assurance, responsiveness and empathy, which are measured using 22 scale items. Brochado (2009) observed that, in the context of higher education, "the dimensions include physical facilities, equipment, teaching staff, non-teaching staff, communication materials such as brochures, booklets, logos, band name (tangibles); the ability of the university to perform the promised service dependably, professionally and accurately (reliability); the willingness of the university to give help to students and provide timely service (responsiveness); the expertise, knowledge, qualification and courtesy of the teaching staff (assurance) and the caring, personalized attention given to students by the university (empathy)". These dimensions are summarized in Table 1.

Table 1. *SERVQUAL Dimensions and Their Constructs*

Dimension	Constructs
Tangibles	Physical facilities; equipment; appearance of personnel; communication materials; laboratories; workshops, logos; brand name.
Reliability	The ability of the university to perform promised services dependably and accurately.
Responsiveness	The willingness of the university to help students (e.g. financial aids, scholarships); provision of prompt services.
Assurance	Knowledge, experience and quality of the teaching staff; ability of the teaching and other support staff to convey trust and confidence.
Empathy	Care provided to students by both the university and staff; personalized attention.

Source: Brochado (2009)

3.2. SERVPERF

Despite its wide usage in the literature, the SERVQUAL instrument has been criticized by some scholars (Cronin and Taylor, 1992, 1994; Teas, 1993; Churchill *et al.,* 1993). For instance, while Cronin and Taylor (1992) posit that service quality can be derived from perceptions of performance alone as opposed to Parasuraman *et al.*'s (1985, 1988) comparison of performance perceptions with expectations, Teas (1993) believed that removing the expectations components of the SERVQUAL measure would enhance its accuracy and reliability.

Churchill *et al.* (1993) argues that the perceptions-minus-expectations scores would create problems of reliability, discriminant validity and variance restrictions. They further argued that expectations are irrelevant and also gives misleading information in terms of service quality evaluation. As a result of these criticisms by researchers and the perceived shortcomings in the SERVQUAL scaling (Buttle, 1996), an alternative scale, SERVPERF (or service performance), was introduced (Cronin and Taylor, 1992). The SERVPERF instrument is a performance-only approach of measuring service quality. It is premised on the perception components alone, leaving out the expectation components. Cronin and Taylor (1992) argued that expectation is not a strong influence on customer purchase intentions as customer perceived satisfaction, as such; it is the consumers' attitudes which are formed after the services are rendered that should be evaluated.

In a subsequent study, Cronin and Taylor (1994) concluded that the SERVPERF model explained more of the differences in an overall measure of service quality when compared to SERVQUAL.

3.3. HEDPERF

In a recent study, an industry specific scale, HEDPERF (or higher education performance), was proposed. Firdaus (2006a) developed the HEDPERF instrument based on Cronin and Taylor (1992)'s SERVPERF survey in general, using higher-education specific factors. The HEDPERF scale, consisting of 41 items considered measures that are applicable to high education industry only, by considering not only the academic components, but also aspects of the total service environment as experienced by students. In developing the HEDPERF scale, Firdaus (2006a) identified five dimensions related to service quality conceptualization (Brochado, 2009):

 i. Non-academic aspects. Items that are essential to enable students fulfil their study obligations, whose duties are carried out by administrative personnel.
 ii. Academic aspects. These include responsibilities of academic staff in all respects, such as teaching, supervising, advising and research
 iii. Reputation, i.e. importance of the higher education institution in projecting good professional and corporate image.
 iv. Access. This includes issues such as approachability, ease of contact, availability and convenience.
 v. Programme issues. This includes importance of offering wide range, acceptable and reputable academic programmes/ specializations which are flexible.

Brochado (2009) argues that in terms of reliability, the HEDPERF instrument presented higher levels of internal consistency, and concluded that both SERVPERF and HEDPERF have the best measurement capability, though it is difficult to identify the best among the two instruments. According to Firdaus (2006a, p.13), the HEDPERF scale has the advantage because "it is more specific in areas that are important in evaluating service quality within the higher education sector", which are conceptually premised on modified five dimensions: non-academic aspects, academic aspects, reputation, access and programme issues. He concluded that measuring service quality using the HEDPERF scale resulted in more reliable estimation, greater criterion and content validity and having better fit than the other generic instruments, as such, it is more superior. However, researchers have questioned the HEDPERF's superiority claim, because being a single-industry based instrument, it lacked popularity (Ginns *et al.,* 2007), not standardised and too restrictive (Brunson, 2010).

4. Comparing SERVQUAL, SERVPERF and HEDPERF

In a comparative study, Firdaus (2006b) compared both the SERVPERF and HEDPERF scales in terms of their reliability, and confirmed the superiority of HEDPERF measurement instrument. But researchers such as Ginns *et al.* (2007) in their study criticized the HEDPERF scale as very unpopular, untested, not standardised and too restrictive; scantly used complex and inadequate (Brunson, 2010). Further, according to Brunson (2010), the HEDPERF scale was criticized for its failure to connect loyalty factors to quality perception and satisfaction. They all agreed on the desirability of a scale that evaluates what students, as the primary customers, expect to receive from their chosen institutions prior to enrolling (expectations paradigm) against what they eventually received (perceptions paradigm), thus justifying the use of SERVQUAL as a standard measure of service quality. Table 2 provides a summary of the various service quality models.

Table 2. Summary of Service Quality Instruments and their Proponents

Instrument	Proponents	Concepts	No. of Items	Dimensions
SERVQUAL	Parasuraman *et al.,* 1985, 1988	Perceptions less expectations	22×2 (Before and After)	Tangibles Reliability Responsiveness Assurance Empathy
SERVPERF	Cronin and Taylor 1992, 1994	Perceptions of performance only	22	Tangibles Reliability Responsiveness Assurance Empathy
HEDPERF	Firdaus 2006a, b	Perceptions of performance only	41	Non-academic Academic Reputation Program issues

Source: Brochado (2009)

The SERVQUAL scale has empirical application in higher education (Hill, 1995; Cuthbert, 1996a, 1996b; Kwan and Ng, 1999; Sohail and Shaikh, 2004; Tan and Kek, 2004; Telford and Masson, 2005; Smith *et al.,* 2007; Zeshen, 2010; Shekardchizadeh, 2011; Khanchitpol, 2014; Anim and Mensah, 2015; Sardar, et. al., 2016; Ushantha and Kumara, 2016). Comparatively, the SERVPERF scale as argued (Brachado, 2009, p.177) is "less popular than the SERVQUAL in the context of higher education (one exception is those by Oldfield and Baron, 2000)".

5. Discussion and Conclusion

Numerous studies related to the efficacy of service quality measurement instruments are mostly conducted within a national setting. Comparatively, the studies seem to support the SERVPERF scale as being more stable (Cronin and Taylor, 1992) over the disconfirmation perspective of the SERVQUAL. However one major albatross of the SERVPERF scale and its proponents is the inability to realize that customer experiences vary across countries and cultures. Viewed from cross-cultural perspective, both expectations and experiences of customers are important in measuring level of satisfaction. In this regard, the SERVQUAL scale seems better. With rising competition, organizations need to understand areas of service improvement to attract customer loyalty and retention. The SERVQUAL scale, being a diagnostic tool (Parasuraman, *et al.*, 1988) afford organizational managers ability to identify those service quality dimensions that are outside the zone of tolerance (ZOT).

Although HEDPERF is an education-industry specific tool, whose superior reliability and validity has been reported in various studies (Firdaus, 2006b), however it still remains untested and unpopular in the service quality literature. Apart from being not validated through further studies, the HEDPERF scale is too restrictive (Brunson, 2010). Therefore, it is not flexible and adaptable to other service contexts.

As argued, service quality is not only involved in the final product or service, but also in the production and delivery process, which requires the measurement of customers' perceptions after consumption (Jaiswal, 2008). Since service quality is an attribute that is extrinsically perceived based on the customers' experience of the service encounters (Parasuraman *et al.,* 1985), then SERVQUAL scale is more robust than either of the performance-only SERVPERF or the restrictive-oriented HEDPERF scales.

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