

COMPARING SERVPERF VERSUS HEDPERF IN MEASURING HIGHER EDUCATION SERVICE QUALITY: A CASE ON SABARAGAMUWA UNIVERSITY OF SRI LANKA

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Abstract

Sri Lanka as a developing country, has to pay more consideration towards the tertiary education sector within the country as education is vital for the development of all individual, family, societal, national and global levels. When paying attention to the higher education sector it is important to measure the quality of the service provided from the universities to students from their perspective as they are the primary customers of education. Among different measures available, the current study is focused on comparing two measures of service quality known as SERVPERF and HEDPERF, to identify the most superior measure to deploy in higher education sector. The SERVPERF model is a prominent measurement for general service quality and HEDPERF is a model developed to assess perception of service quality specifically in the higher education sector. The two scales were compared in terms of validity, reliability, and explained variance. The study has applied survey method including both SERVPERF and HEDPERF scales with 22 items and 41 items respectively. The study has been carried out by collecting data from the sample of 211 management undergraduates in 3rd year of Sabaragamuwa University of Sri Lanka. The findings revealed that HEDPERF is more appropriate to measure service quality of higher education as HEDPERF resulted in more reliable estimations, greater validity and greater explained variance. But still HEDPERF should be modified in Sri Lankan context as two dimensions out of six were removed due to their low reliability values. Thus, there is a need of a novel model to measure higher education service quality in Sri Lanka.

Keywords: HEDPERF, higher education, service quality, SERVPERF

Introduction

The most crucial factor for any country for its development is the human capital, in the sense of knowledge, skills and experienced possessed by individuals or the society as a whole. In order to develop human capital asset of a country, apparently there should be a better education system which can fill individuals with knowledge and skills in multidisciplinary nature. Thus, Sri Lanka as a developing nation, the most vital area to be considered is to enhance the human capital to ensure a secure development. Therefore, the higher education sector in Sri Lanka has a huge responsibility to build and uplift human capital.

The higher education sector has spread its importance among numerous stake holders such as the students, academic staff, industry, society, parents and etc (Suganthi & Samuel, 2012). Nevertheless, students are treated as the primary customers of higher education industry (Abdullah, 2006a). According to several authors, higher education institutes not only consider about the values provide to the society but also about the feelings of its undergraduates regarding the quality of the service (Ginsberg, 1991; Lawson, 1992; Bemowski, 1991 as cited in Abdullah, 2006a). Since there are many stake holders of higher education sector, it is vital to maintain a high service quality in order to increase the satisfaction of all the stakeholders and the quality level of the graduate output. Thus, there is an increasing importance to measure the service quality of higher education institutes. Service

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sector organizations have increased their attention to maintain higher service quality to attain a competitive advantage at the market place by satisfying their customers. In fact tertiary education of Sri Lanka attempt to elevate the service quality of the institutes to encounter the global educational standards. O'Neill and Palmer (2004)(O'Neill & Palmer, 2004) define service quality in higher education as the difference between what a student expects to receive and his/her perceptions of actual delivery

Due to the complexity of defining the “customers” in higher education industry, the service quality of higher education institutes can be measured from different perspectives such as: academics as customers, administration as customers, students as customers, society as customers (Abdullah, 2006b). However, many scholars have identified students as the primary customer in education service (Ushantha & Kumara, 2016). Thus students can be identified as the most appropriate party to get a view regarding service quality of the higher education sector.

Moreover, there can be seen several models to measure the level of service quality in higher education such as SERVQUAL (Parasuraman, Zeithaml, & Berry, 1988), SERVPERF (Cronin & Taylor, 1992) and HEDPERF (Abdullah, 2006b), but there are a limited number of studies which compared those measures to recognize the validity in Sri Lankan context. Consequently, this study aims identify the most applicable model to measure service quality of higher education sector by comparing two methods: SERVPERF and HEDPERF.

Literature Review

Nowadays with the competitive environment the service quality of the tertiary education has become a critical factor. The students of the higher education sector as the primary customers, are seeking high level of service quality. Thus, it is important to know how the students of higher education institutions feel about their educational experience (Bemowski as cited in Ushantha & Kumara, 2016). In order to know the students' educational experience, higher education institutes have taken many steps to measure the quality level of the service they provide.

A service can be differentiate from a physical product by understanding its unique characteristics namely, intangibility, inseparability, perishability and heterogeneity (Kotler & Armstrong, 2013). Thus many researchers have defined service quality as the attitude towards the service superiority from the customer perspective. As the foremost definition of service quality perhaps Lewis and Boom have defined it as measure of how well the service level delivered matches the customer's perspective (Abdullah, 2006a).

As a prominent authors of the field, Parasuraman et al., (1988) has developed a model called SERVQUAL with five dimensions to measure the service quality and defined the service quality as the gap between performance perception and expectation. In contrast Cronin and Taylor (1992) have critiqued the SERVQUAL approach as it is inadequate to conceptualization and to operationalise the service quality measurement and they developed SERVPERF model by highlighting only the performance of the service. SERVQUAL model highlighted the expectation minus perception paradigm, while SERVPERF model highlighted the attitude model which consists of 22 perception items thus excluding other items which are relating to the expectation (Sultan & Tarafder, 2007). Moreover while Parasuraman et al., (1988) proposed high level of service quality leads to customer satisfaction, Cronin and Taylor (1992) specified that satisfaction is an antecedent of service quality. So it is apparent that customer satisfaction is a crucial factor for service quality.

Several models have been developed to measure the service quality of higher education sector (O'Neill & Palmer, 2004 ; Abdullah, 2006a; Yusoff, Mcleay, & Woodruffe-Burton, 2015). Service quality in higher education is defined as the difference between what a student expects to receive and their perceptions of actual delivery (O'Neill & Palmer, 2004). Most of researchers stated that the five dimensional SERVQUAL model may not appropriate for measure the higher educational service quality since expectation is unnecessary to use as key factor (Abdullah, 2005; Sultan & Tarafder, 2007). Further a model has been developed by Abdullah (2006b) which is specified for the higher education sector called HEDPERF (Higher Education Performance-Only) due to the need of industry

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specific model for higher education service quality. The model has consisted with 41 items and 13 items were adopted from the SERVPERF model while rest of the 28 items were produced from literature review and various qualitative methods. Research findings has confirmed that the six dimensions, namely, non-academic aspects, academic aspects, reputation, access, program issues and understanding were distinct and conceptually clear (Abdullah, 2006b).

There are several studies has conducted in different contexts to compare and to pinpoint the most appropriate model to measure service quality in higher education sector. Abdullah (2006a) has compared HEDPERF versus SERVPERF in Malaysian context as well as O'Neill and Palmer (2004) have conducted in the context of Western Australia. Even though there are several studies has directed in Sri Lanka to measure service quality in several industries as well as in higher education industry, there is a gap in Sri Lankan literature regarding comparison of two service quality measuring models in higher education sector.

Methodology

The primary objective of the present study was to determine the instrument which has superior capability to measure the service quality in higher education sector in Sri Lanka. Therefore, the study has attempted to compare the two measurements namely, SERVPERF against HEDPERF. As to accomplish the purpose of this study, the researchers have applied survey method to carry out the study in quantitative methodology.

The data were collected by self-administered questionnaire consisted with four sections as; part A; part B; part C; and part D. Part A consisted with demographic information of participants and part B comprised with SERVPERF scale developed by Cronin & Taylor (1992) which used to measure service quality by five dimensions namely Tangibility, Reliability, Responsiveness, Assurance and Empathy based on the service performance rather than the perceive - expectation gap. The scale has been made of 22 items to measure the five dimensions and it indicates acceptable reliability (Cronbach's alpha in excess of 0.8) and validity. Specially, part C consisted with HEDPERF scale developed by Abdullah (2006b) with 41 items under six dimensions as non academic aspects, academic aspects, reputation, access, programme issues and understanding, and it has ratified acceptable level of reliability and validity. Part D of the questionnaire consist with three items to measure customer satisfaction which served as the a dependant variable of the study.

On the basis of literature, since students are the primary customers of higher education sector, this study has been carefully conducted for third year management undergraduates of Sabaragamuwa University of Sri Lanka as they were the most senior undergraduates within the time period of study. Thus, the population of the study accounted for 360 students (N=360), and the stratified random sampling technique was employed to select 250 participants as the sample (n=250) from seven degree programmes (Krejcie & Morgan, 1970). Thereafter, the respondents were asked to range how much they agreed with the statements in the questionnaire according to Seven-point Likert Scale (1- Strongly Disagree, 2- Disagree, 3- Somewhat Disagree, 4- Neutral, 5- Somewhat Agree, 6- Agree, and 7- Strongly Agree). Therefore, researchers have distributed 250 questionnaires among respondents but only 211 questionnaires were collected in return, indicating 84% response rate.

SPSS 21.0 software was employed for the analysis of the study to compare two scales. The best scale was evaluated in terms of validity (KMO value), reliability (Cronbach alpha value) and the explained variance (R square).

Results and Findings

The collected 211 questionnaires were further analyzed using SPSS 21.0 software package. As per the table 1 presents the sample included 37 percent males and 63 percent females due to the higher number of university entrants of females to management faculties in Sri Lanka.

Table 1: Descriptive Statistics

	Frequency (N)	Percentage
Male	78	37%
Female	133	63%
Total	211	100%

Content validity ensures that the measure includes an adequate and representative set of items that tap the concept. The more the scale items represent the domain or universe of the concept being measured, the greater the content validity (Sekaran, 2003).

The present study attempted to rationalize the most valid instrument among SERVPERF and HEdPERF scales in higher education institutes in Sri Lanka. Thus, the validity of the two instruments were compared using KMO and Bartlett's Test values (table 2). Accordingly, Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) value of SERVPERF scale was 0.815 value with 0.000 acceptable significance value. The results depicted that HEdPERF scale had a higher KMO value of 0.875 showing a high validity of the instrument compared to SERVPERF.

Table 2: Overall Validity of Variables

Measurement	Number of items	KMO value	Sig. value
SERVPERF	22	0.815	0.000
HEdPERF	41	0.875	0.000

The reliability of a measure indicates the extent to which it is without bias (error free) and hence ensures consistent measurement across time and across the various items in the instrument. In other words, the reliability of a measure is an indication of the stability and consistency with which the instrument measures the concept and helps to assess the goodness of a measure (Sekaran, 2003).

The overall reliability of the two instruments were compared using Cronbach alpha. Table 3 presents the overall reliability of the two scales. The 22 items in the SERVPERF scale resulted in a Cronbach alpha value of 0.827 which indicated a good reliability. The 41 item HEdPERF scale resulted a Cronbach alpha value of 0.924 which indicated a high reliability.

Table 3: Overall Reliability of Variables

Measurement	Number of items	Cronbach alpha (α)
SERVPERF	22	0.827
HEdPERF	41	0.924

Further, the dimensions of each scale were evaluated in terms of their reliability values. As per the table 4, SERVPERF dimensions had reliabilities over 0.692 for all the dimensions, and the highest value accounted 0.788 for empathy. However, out of six dimensions available in HEdPERF two (programme issues and understanding) were discarded as they had low Cronbach alpha values. All other dimensions had higher reliability values compared to SERVPERF.

Table 4: Dimension wise Reliability

SERVPERF dimensions	No of items	Cronbach alpha (α)	HEdPERF dimensions	No of items	Cronbach alpha (α)
Tangibility	4	0.775	Non-academic aspect	12	0.901
Reliability	5	0.773	Academic aspect	6	0.765
Responsiveness	4	0.692	Reputation	9	0.814
Assurance	4	0.784	Access	7	0.812
Empathy	5	0.788	Programme issues*	2	0.532
			Understanding*	2	0.544

*items discarded

In addition to validity and reliability values, R square values were compared to check the most suitable measure. Thus, regressions were run for both SERVPERF and HEdPERF separately to check their impacts on satisfaction. According to the R square values, HEdPERF had a higher R square value of 0.487 while SERVPERF had only 0.237.

Table 5: Model Summary

Model	R Square
SERVPERF	0.237
HEdPERF	0.487

Conclusion

The objective of this research was to test and compare the relative applicability of the two conceptualisations (SERVPERF and HEdPERF) of higher education service quality in order to determine which instrument had the superior measurement capability in terms of reliability, validity, and explained variance. The research was conducted for the undergraduates of Sabaragamuwa University of Sri Lanka and the findings indicated that the two scales performed differently on this setting. The findings concluded that HEdPERF resulted in greater validity, reliability and greater explained variance.

Non-academic aspect in the HEdPERF scale showed a highest reliability of 0.901 indicating its reliability to the current context which similar to the findings of Abdullah (2005). However, programme issues dimension was discarded in addition to understanding dimension (which was discarded from Abdullah (2005)'s study) from the current study as they indicated low reliability values. Further, all other four items in HEdPERF indicated high reliability values out of them three had reliabilities over 0.8.

Higher education institutions should therefore concentrate their efforts on non-academic aspects, its reputation, access, and academic aspects which they feel as more important determinants of service quality. Thus, they should prioritize these attributes in order to allocate resources efficiently. In conclusion, the current study provides the idea that HEdPERF instrument is superior compared to SERVPERF instrument in measuring service quality within the higher education context. However, as empirically support, a modified structure of HEdPERF may be needed in measuring higher education service quality within the Sri Lankan context.

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