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Students' perceptions of service quality in Saudi universities: the SERVPERF model

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Abstract

Purpose – The purpose of this study is to examine the influence of service quality on student's satisfaction. **Design/methodology/approach** – Using empirical research, the study identified previously validated scales of service quality and student satisfaction. Using the SERVPERF scale, data were collected from 279 students studying in public and private universities across Saudi Arabia. The model fit of the scale was assessed to ensure that the data produced accurate outcomes. Structural equation modelling was used to test the effects of independent variables on dependent variables.

Findings – The results suggest that four of the five dimensions of service quality, namely, tangibility, reliability, responsiveness and assurance had a significant effect on students' satisfaction. Empathy was not found to contribute to student satisfaction. The findings broaden and deepen our understanding of how the dimensions of service quality reinforce students' satisfaction.

Research limitations/implications – Future research can also incorporate in the model other variables, academic and non-academic, related to student satisfaction.

Practical implications – The results have useful implications for decision-makers in higher education institutions who strive to enhance students' satisfaction and increase the quality of higher education programmes, particularly in Saudi Arabia and the Gulf region in general.

Originality/value – This study uses the SERVPERF scale, which is empirically superior to the SERVQUAL scale for measuring student satisfaction.

Keywords Service quality, Student satisfaction, Higher education, SERVPERF, Saudi Arabia

Paper type Research paper

Introduction

Organizations have been placing a high priority on the quality of their services because of their essential contribution in building competitive advantage, appealing to new customers and maintaining an existing customer base. As the conceptualization of service quality (Oliver, 1976), research on this subject has widely attracted the attention of researchers and

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Learning and Teaching in Higher Education: Gulf Perspectives Vol. 17 No. 1, 2021 pp. 54-66 Emeratd Publishing Limited 2077-5504 DOI 10.1108/LTHE-08-2020-0016 practitioners (Karl *et al.*, 2016; Gorsuch, 1990). For educational institutions around the world, the provision of quality services in the setting of higher education is of primary importance. In general, the quality of higher education is a vital prerequisite for industrial, economic and social development. While previous research has demonstrated that improving service quality is one of the main objectives of higher education service providers, the opinion of students in determining service equality improvements has not been taken into account, especially in developing nations (Osman and Saputra, 2019; Bozbay *et al.*, 2020).

Previous research has made sound contributions in the field of customer satisfaction. Ever since Parasuraman *et al.* (1985) proposed the connection between service quality and customer satisfaction, numerous studies have established that higher levels of service quality drive higher levels of customer satisfaction. A prevailing view, in the setting of higher education, is to consider students as customers (Judson and Taylor, 2014). Higher educational institutions (HEI) are increasingly focusing on student satisfaction in the wake of growing competition (Kashif *et al.*, 2016). Further support is provided by various studies that suggest that the main customers of the higher education segment are students, as they are involved in the selection and the purchase of services (Ali *et al.*, 2016). Therefore, it has been argued that the satisfaction of students is significant because service quality is the only performance indicator for a higher education service provider (Barnett, 2011).

While there are wide-ranging studies in the domain of service quality in higher education, specific gaps in the literature are identifiable. To begin with, among the various tools that have been used to evaluate service quality, the SERVQUAL model has been the most extensively used to demonstrate a present condition of service quality by providing the gap score between perception and expectation (Ali and Raza, 2017). Although the SERVQUAL tool has been adopted in various studies, issues have arisen in the disconfirmation mode in the perception-expectation (P-E) gap scores (Jain and Gupta, 2004). The legitimacy of the P-E assessment framework has also been criticized because of its problematic conceptualization and assessment of the expectation factor of the SERVQUAL model. The present study uses the SERVPERF model, which is methodologically a noticeable upgrade over the SERVQUAL model because performance-only measurement items have been adopted by researchers (Brady *et al.*, 2002). Yet, a few studies have applied this model in the context of HEI (Sultan and Wong, 2014), particularly in the Gulf region.

The current research study sought to fill this gap by examining the effects of service quality dimensions on students' satisfaction with HEIs in Saudi Arabia. These empirical findings can help the higher education policymakers and administrators in Saudi Arabia to improve the quality of services provided and enhance student satisfaction.

Literature review

Measuring service quality

Given the strong influence of service quality on organizations, this topic has been a major focus of research over the past decade (Ali *et al.*, 2016). However, there is little agreement on a unanimously recognized conceptualization and a standardized theory defining service quality. According to Parasuraman *et al.* (1985), service quality can be defined as an overall judgement similar to attitude towards the service and generally accepted as an antecedent of overall customer satisfaction. In the context of higher education, the student-perceived service levels can put pressure on HEI to monitor and implement service quality.

SERVQUAL, an acronym for service quality, is a multi-dimensional survey instrument, designed to capture the consumers' expectations and perceptions along five dimensions of service quality: tangibility, reliability, assurance, responsiveness and empathy. The survey instrument was built on the expectancy-disconfirmation paradigm, which essentially means

Students' perceptions of service quality that the quality of service is understood from the customers' pre-use expectations of quality and confirmed or disconfirmed by their actual perceptions after the usage experience. Ever since the development of the SERVQUAL survey questionnaire by Parasuraman *et al.* (1985), it has been widely used to measure service quality in a variety of industries, contexts and cultural settings (Galeeva, 2016). This survey instrument had been found to be relatively robust but it has also attracted criticism from researchers leading to the development of an alternative model.

The SERVQUAL model has been criticized on several conceptual and operational grounds (Jain and Gupta, 2004). The usage of gap scores, the predictive power of the measurement items, the length of the questionnaire and the legitimacy of the five-dimension structure are the major concerns raised towards the model (see Babakus and Boller, 1992). Responding to the shortcomings of the SERVQUAL model and the need for a systematically more accurate model, Cronin and Taylor (1992) developed the SERVPERF model, an acronym for service performance. As this model is based only on the performance perception component of the multi-dimension, measurement items are considered to be far more efficient as they were reduced by 50%.

Empirically, SERVPERF is a superior measure of service quality in comparison to SERVQUAL as it has the capability to clarify more variance in the overall service quality as it is assessed with a single-item measure. This led to considerable support over time in favour of the SERVPERF model (Akdere *et al.*, 2020; Leong *et al.*, 2015) and practitioners have increasingly been using this performance-only measure of service quality (Ngo and Nguyen, 2016; Teeroovengadum *et al.*, 2016). Based on these observations, the present study adopted the SERVPERF model.

Higher education service quality

As students are the main stakeholders of HEIs, service quality in the context of higher education has relied on the service experience of students as provided by HEIs (Jancey and Burns, 2013). Further, the satisfaction of students is substantially influenced by their perception of service quality (Alves and Raposo, 2010). Given the importance of this relationship, several researchers in the setting of higher education, have tried to advance and scrutinize service quality.

Most studies in the field, however, have used a P-E paradigm to explore service quality in HEIs (Calvo-Porral et al., 2013). Contemporary scholars have used traditional items or used adapted SERVQUAL measurement questions and found all the dimensions of the adapted SERVQUAL model to strongly support the assessment of service quality in higher education (Shekarchizadeh et al., 2011). Several other studies have used the five traditional dimensions of the original model. For example, a study undertaken in Iranian universities investigated the service quality of higher education. In this study, while assessing the service quality of a university, some dimensions such as empathy, tangibility and assurance were lacking provision (Abili et al., 2012). Another study conducted in an African university, found reliability to be the leading dimension of students' perceived service quality (Cheruivot and Maru, 2013). In addition, Noaman et al. (2017) developed a model to assess quality in HEI using the Analytical Hierarchy Process (AHP) method. The AHP is a multiple-criteria decision-making method and has been used in the assessment of service quality. This method was developed to assist decision-makers using multiple criteria. However, the AHP method is not favoured among researchers because it introduces imprecision as it requires the judgements of experts (Liu *et al.*, 2020).

While several studies have examined service quality in the field of higher education across the globe, research on the quality of service in HEIs in Saudi Arabia is scant. Sohail

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and Shaikh (2004) undertook a study on students' perception of service quality, but this was limited to a business school of a university in Saudi Arabia. Furthermore, while most studies have used the SERVQUAL model, it would be useful to use the SERVPERF to explore the service quality of HEIs in Saudi Arabia, which has been largely overlooked in previous studies.

Student satisfaction

Customer satisfaction has been widely referred to in the literature in relation to business and marketing, due to its importance in accomplishing organizational goals. Furthermore, customer satisfaction is considered a benchmark of performance for organizations to achieve excellence (Sohail, 2018). Several extant studies have examined customer satisfaction and its relations with perceived value, service experience, service quality and consequences of service evaluation.

Within the field of service quality, students in HEIs are considered customers as they can reasonably demand their opinions to be heard and acted upon. In HEIs, students are the main customers and partners, as they are directly involved in the selection and purchase of services. Past research has emphasized that student satisfaction performs a significant part in shaping the precision and genuineness of the services being offered. Several other studies have also stated that the satisfaction of students is important as a performance indicator of service quality in HEIs (see Barnett, 2011).

The current study was conducted in the Kingdom of Saudi Arabia (KSA), which is the largest nation on the Arabian Peninsula. Traditionally known as an oil-based economy, Saudi Arabia is fast-moving towards diversifying its economy. As a result, the higher education system in Saudi Arabia is undergoing rapid transformation. With numerous renowned HEIs, Saudi Arabia has been amongst the fastest growing education systems in the Middle East and Gulf region. In 2018, seven Saudi universities were listed on the QS World University Rankings. In the QS Arab Region University Rankings (2018), 21 of the top 100 universities were in Saudi Arabia. Overall, Saudi Arabia achieved the 36th position for university education in the world (Top Universities, 2018).

Since 2016, *Vision 2030*, adopted by Crown Prince Mohammed bin Salman bin Abdulaziz Al Saud, has put a specific focus on the development of the economy and education to help Saudi Arabia emerge as one of the most prosperous nations in the world. HEI leaders are responding to this vision and a major challenge faced by Saudi universities is improving quality (Alharbi, 2016). Thus, the aim of this study is to analyse the student satisfaction level in higher education in Saudi Arabia. The present research will help HEIs in their pursuit of improving service quality, attaining student satisfaction and contributing to achieving *Vision 2030*.

The study

Context and participants

The target population for this study was all students studying in universities in Saudi Arabia. In total, 10 universities from Saudi Arabia which were listed in the top 50 of the QS Arab Region University Rankings in 2018 were chosen for this study (Quacquarelli Symonds, 2018). The websites of these 10 universities were explored and the Chairs of major departments were contacted through email. The Chairs were given information about the student survey, the purpose of the survey and a request was made to allow their students to participate in the survey by distributing the survey link.

The target respondents were undergraduate and postgraduate students studying in Saudi Arabian universities. All participants were required to be over 18 years and currently

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LTHE enrolled in any undergraduate or postgraduate course. The survey was conducted online using SurveyMonkey. Each participant provided a signed informed consent before responding to the survey.

Data collection and procedures

The study adopted the SERVPERF model. The survey instrument comprised 21 items, adopted from the SERVQUAL dimensions: reliability, tangibility, assurance, responsiveness, reliability and empathy (Parasuraman *et al.*, 1985). These dimensions were used to determine the perceptions of customers with regard to:

- Tangibles: such as physical facilities, personnel appearance and equipment.
- Reliability: the ability to deliver the assured service precisely and reliably.
- Responsiveness: intention to assist students and provide prompt services.
- Assurance: employees' knowledge, politeness and capability to bear trust and assurance.
- *Empathy*: taking care of individual students.

The performance-only items were measured on a five-point Likert scale (from 5 = strongly agree to 1 = strongly disagree). The dependent variable in this study was the overall student satisfaction with the HEIs.

The instrument was composed of two parts: service quality and student satisfaction. The service quality measures were adapted from Nadiri *et al.* (2009) and the student satisfaction measures were adapted from the study of Laroche *et al.* (2004). The questionnaire was initially written in English. This was then translated to the local Arabic language using the back-translation method (Malhotra, 2019), as the medium of instruction in some of the target universities was Arabic. The face validity of the questionnaire was tested by performing a pilot test on 15 randomly selected students at the authors' university to ensure the validity, appropriateness and applicability of the questionnaire. After the pilot test, the wording of a few questions was adjusted and refined. Both the Arabic and English versions of the survey were used for data collection because they had both been seen to measure exactly the same items and constructs.

After completing the data collection process, data cleaning through a consistency check was performed. The incomplete surveys were excluded from the sample. This resulted in 279 usable responses.

Results

Sample demographics

The sample showed that 57% of the participants were men, while 65.2% were in the 18-24 age group. With respect to the level of education, 66% were pursuing undergraduate courses, 27% were postgraduate students and the remaining participants were studying technical and diploma courses. Other details of the respondents' background are shown in Table 1.

Model testing

The items used to assess each construct were verified using factor analysis to prove the factor structure and find items for the omission, that is, items with below standard factor loading and/or high cross-loading. Varimax rotation was used to get a simple structure and factors with eigenvalue below 1 were discarded (Gorsuch, 1990). Tangibility, reliability, responsiveness, assurance and empathy were the five

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Demographics	Frequency	(%)	Students'	
<i>Gender</i> Male Female	159 120	57 43	service quality	
Age 18 to 24 25–34 35 to 44 45 and over	182 76 19 2	65.2 27.2 6.8 0.7	59	
Level at university Undergraduate Postgraduate Other	185 56 38	66.3 20.1 13.7		
<i>Field of study</i> Engineering, science and technology Business and management Medical, dentistry and nursing Arts, education and humanities Other	105 58 48 8 60	37.6 20.8 17.2 2.9 21.5		
Nationality Saudi Non-Saudi	248 31	88.9 11.1		
Public/private university Public Private	232 47	83.2 16.8		
Location of the university Eastern province Central province Western province Southern province Northern province	87 83 59 31 19	31.18 29.75 21.15 11.11 6.81	Table 1.Respondentdemographic profile(n = 279)	

dimensions of the SERVPERF instrument. All the factor loadings exceeded the minimum recommended value of 0.50 on their intended constructs except for the fourth dimension of the SERVPERF, namely, assurance (ASRNC4), which was loaded below the recommended minimum value and was dropped.

Content, convergent and discriminant validity were performed to further validate the survey instrument (Hernaus *et al.*, 2012). Using a two-stage process, development and judgement, content validity was established (Lynn, 1986). All the items were borrowed from previous research in the development stage. For the judgement stage, five experts were asked to assess individual items and instruments. Some minor changes were made in the wording of the stamen after the judgement process (Lynn, 1986). By measuring Cronbach's alphas, average variance extracted and composite reliability and convergent validity were assessed. Table 2 below presents the factor loading, Cronbach's alphas (α), composite reliability (CR), average variance extracted (AVE), mean and standard deviation (SD) for all the research variables. All the CR values exceeded the suggested value of 0.70 (Nunnally, 2010), confirming the reliability of all the constructs. As proposed by Fornell and Larcker (1981), the AVE value of 0.50 or more demonstrates that it explains more than half of the variance of its individual items and, thus, convergent validity is established. As shown in

171	Constructs and items	Factor loading	AVE	CR	α	Mean	SD	
17,1	<i>Tangible</i> Tangible1 Tangible2 Tangible3	0.74 0.87 0.58	0.530959	0.81616	0.80	3.4116	0.9295	
60	Tangible4 <i>Reliability</i> RLBLTY1 RLBLTY2 RLBLTY3 RLBLTY4	0.71 0.81 0.81 0.66 0.70	0.559394	0.83437	0.82	2.821	0.93355	
	Responsiveness RSPNSV1 RSPNSV2 RSPNSV3	0.81 0.84 0.78	0.657528	0.85194	0.77	3.3572	0.90707	
	Assurance ASRNC1 ASRNC2 ASRNC3	0.63 0.83 0.81	0.585403	0.806791	0.73	3.3811	0.8883	
	<i>Empathy</i> EMPTHY1 EMPTHY2 EMPTHY3	0.67 0.85 0.84	0.62521	0.831976	0.84	3.0705	1.00965	
Table 2.	Satisfaction SAT1 SAT2 SAT3	0.84 0.83 0.70	0.628126	0.834276	0.73	3.4185	0.81671	
and reliability	Notes: $AVE > 0.5$; Cronbach's alpha > 0.8; $CR > 0.7$							

Source: Based on Fornell and Larcker, 1981: Nunnally, 2010

Table 2, all the AVE values for each of the constructs exceeded the recommended value of 0.50. So, the convergent validity of the constructs was established.

To scrutinize the uniqueness of each construct from the others that are integrated into the model, the discriminant validity was then verified. By comparing the AVE for any two constructs to the square of the correlation between the two constructs, a discriminant validity test was performed (Hair et al., 2010). The squared correlation coefficient of constructs was found to be less than the AVE of each construct confirming a high discriminant validity.

Confirmatory Factor Analysis (CFA) was undertaken to measure the model fit and validity of the constructs (Hair et al., 2010). The CFA revealed a good model fit for the absolute fit indices and the incremental fit indices, with the signal that the model could be parsimonious. To measure the model fit, the constructs of the model were tested using AMOS software. Hair et al. (2010) reasoned that model fit indices ought to meet the satisfactory benchmark before deciding the model fit indices. A subset of indices such as χ^2 /df (CMIN/DF), GFI, AGFI, CFI and RMSEA are widely accepted and recommended by SEM researchers (Mahrous and Abdelmaaboud, 2017). Table 3 demonstrates that every model-fit index surpassed the suggested value from past research, displaying a satisfactory fit for the gathered data.

Service quality and student satisfaction

The comprehensive outcomes of the structural model and link between the five dimensions of service quality and student satisfaction are shown below in Table 4. The link between satisfaction and tangibility was supported, with tangibility significantly affecting satisfaction ($\beta = 0.23$, p < 0.01). Similarly, dimensions of reliability, responsiveness and assurance also significantly influenced student satisfaction (reliability: $\beta = 0.21$, p < 0.05; responsiveness: $\beta = 0.19$, p < 0.01; assurance: $\beta = 0.61$, p < 0.01). However, the relationship between empathy and student satisfaction indicated that empathy, which refers to how much the service employees of the universities take care of the individual student, does not significantly influence student satisfaction. The R^2 value was 0.718, demonstrating that satisfaction can describe 71.8% of the variance by the five predictors.

Discussion

This study has examined the relationship between the five dimensions of service quality (tangibility, reliability, responsiveness, assurance and empathy) and students' satisfaction in Saudi Universities. Of these five dimensions, four of them, namely, tangibility, reliability, responsiveness and assurance, have a positive and substantial effect on Saudi students' satisfaction with their universities.

The study found that assurance strongly explains student satisfaction. That assurance is the most important dimension of service quality ($\beta = 0.61, p < 0.001$) is also supported by a number of other studies (Akdere *et al.*, 2020; Nadiri *et al.*, 2009). In the context of higher education, this implies that students' evaluation of educational service quality is influenced to a great extent by faculty's knowledge, courtesy and ability to inspire trust and confidence. Higher education institutions must, therefore, ensure that the teaching and support staff have adequate training, knowledge and skills to deal with the students in a polite manner so that they can build trust and assurance among the students. Tangibility ($\beta = 0.23, p < 0.01$) is the next most important factor in the study findings. Modernization of the university's

Fit indices χ^2 /df Normed fit index (NFI) Goodness of fit index (GFI) Adjusted for the degree of freedom (AGFI) Root mean square error estimation (RMSEA) Comparative fit index (CFI)		Suggested value	 Recommended by Author(s) Fox and Hayduk (1989) Bentler and Bonett (1980) Scott (1995) Scott (1995) Bagozzi and Yi (1988) Bagozzi and Yi (1988) 		Mea (p	surement model resent study)	Table 3. Fit indices for measurement models
					9) 980)	1.553 0.921 0.924 0.897 0.045 0.958	
Constructs Relations	β	S	6. E.	t	þ	Outcome	
Tangibility → satisfaction Reliability → satisfaction Responsiveness → satisfaction Assurance → satisfaction Empathy → satisfaction	0.23^{*} 0.21^{*} 0.19^{*} 0.61^{*} -0.05	* 0 * 0 * 0 ** 0 ** 0	.066 .063 .055 .057 .066	3.41 3.209 3.448 8.771 -0.843	0.001 0.014 0.001 0.000 0.4	Accepted Accepted Accepted Accepted Rejected	Table 4.

Notes: **p < 0.01; ***p < 0.001; S.E. = Standard error; direct effect on satisfaction: $R^2 = 0.718$

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structural model

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equipment, making the classrooms, projectors and boards visually more attractive and clean and the professional presentability of faculty members and staff enhances students' perception of the quality of higher educational institutions. Past studies in higher education settings have also found that the peripheral aspects and facilities have a direct and indirect effect on student satisfaction (Akdere *et al.*, 2020; Cho and Hyun, 2016).

The reliability dimension ($\beta = 0.21, p < 0.01$) has also been found to significantly contribute to the students' service quality perception in a similar fashion as in previous studies conducted elsewhere (Akdere et al., 2020; Parasuraman et al., 1985). Moreover, students valued the reliability dimension, which is the institution's ability to deliver the assured service precisely and reliably. This implies that universities should strive to ensure that they maintain proper communication with accurate information on service performance. Academic staff who play a pivotal role in student satisfaction (Kashif et al., 2016), should be expected to contribute effectively in communicating, delivering education and developing a quality assurance system. Responsiveness ($\beta = 0.19, p < 0.01$) was also found to be one of the important dimensions. The responsiveness dimension is associated with staff and faculty's ability to inform students when the services will be delivered, to deliver the services as soon as possible and their overall willingness to help students. To increase student perceptions of the dimension of responsiveness in the higher education context, students need to feel psychologically dependent on the ability of the university staff to offer services, demonstrate associated knowledge and experience, effectively inform students in all aspects of their university services and well-being and provide timely services.

Finally, this study found that empathy does not have an effect on student satisfaction, which is in contrast to findings in a number of previous studies, where empathy was found to have an influential role in student satisfaction (Cho and Hyun, 2016; Fleischman *et al.*, 2017; Mahmoud and Khalifa, 2015). Empathy in educational settings is the ability to show care and understanding towards a student, which can be met by having student-friendly policies and procedures, as well as ensuring staff has good interpersonal skills. The lack of support for empathy and its influence on student satisfaction has been reported in some previous studies (see Høst and Knie-Andersen, 2004).

It is evident from the findings of the present study that student satisfaction is influenced by different elements, other than empathy and this can be due to the cultural context of the study. The lack of influence of empathy can be explained by the power distance", which measures how a culture views power relationships between people (Hofstede, 1980). Power distance is one of the six dimensions of national culture based on extensive research by Hofstede (1980). Saudi Arabia scores high on this dimension, implying that individual differences in the hierarchy of power are highly acknowledged and shared by members of society. Saudi students, therefore, do not have an expectation of empathy from faculty and staff because they view them as authorities that are seldom questioned and they are to be followed.

Conclusion

The present study sought to investigate the effects of service quality dimensions on students' satisfaction with HEIs in Saudi Arabia. The results of this study suggest that four of the five dimensions of service quality, namely, tangibility, reliability, responsiveness and assurance, have a significant effect on students' satisfaction with higher education in Saudi Arabia. Empathy was not found to contribute to student satisfaction. Previous empirical research supports the finding that service quality has substantial effects on customer satisfaction. The results of this study show that tangibility significantly influences

satisfaction, a finding supported by several other studies. Helgesen and Nesset's (2007) findings support this relationship in the setting of higher education. The influence of satisfaction on three other dimensions, namely, reliability, responsiveness and assurance, was also in line with previous studies.

While this research clarifies the connection between combined service quality dimensions and how this could lead to student satisfaction, some limitations of the research should be pointed out. Firstly, some of the dimensions such as academic, non-academic and programmerelated aspects were not incorporated in the study (Ali *et al.*, 2016). For a better comprehension of causal factors leading to student satisfaction, future research may include dimensions such as coursework quality, non-curriculum events and other university-related factors as determinants of student satisfaction. Secondly, this study has used a cross-sectional design. While the cross-sectional design has been used in a large number of educational and marketing research, it is recommended longitudinal studies be conducted in future service quality research. Thirdly, to have a more in-depth understanding of the cultural influence on student satisfaction, it is recommended to follow a qualitative approach in researching student expectations.

Despite its limitations, this research study has contributed to the development of theory by providing reasoned justification for the use of SERVPERF measures that has been lacking in previous research in educational settings. On the strength of this, future studies can position more appropriately and direct their research efforts with greater conviction in the area of student satisfaction in diverse cultural settings.

The practical importance of this study is to provide insights to leaders of HEI in Saudi Arabia on how to improve students' satisfaction. The results of the study demonstrate the dimensions of service quality, which influence student satisfaction. Administrators should understand the processes of these dimensions to capture and use these inputs to aid student satisfaction. The study has also several implications for policymakers in Saudi Arabia. Research has established that universities and educational institutions are looking for academic quality to become more globalized and to ensure consistency, thereby producing successful results (Abdulhalem and Altbach, 2013). The Ministry of Education in KSA and other agencies must review and improve the quality of universities to ensure compliance with international global standards and world-class universities.

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