SAUDI UNIVERSITY STUDENTS' PERCEPTIONS OF SERVICE QUALITY IN HIGHER EDUCATION

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ABSTRACT

Higher education institutions (HEIs), consider the customer experience an intrinsic component of their strategic plans, decision-making processes, and development. In higher education (HE) contexts, students are customers and demand high service quality. This article evaluates the perception of quality of service (QoS) in a HE setting from the perspective of students studying at King Khalid University (KKU) in the Kingdom of Saudi Arabia (KSA). A modified service quality (SERVQUAL) instrument measures five constructs: tangibles, reliability, responsiveness, assurance, and empathy. The research also assesses possible connections between the participants' responses and key demographic variables. Permission was granted to distribute 500 questionnaires to students from the selected college. Of these, 350 questionnaires were returned, and 298 were deemed useful. The data assessing perceptions of QoS was analyzed using SPSS, a t-test, and a cutoff point (3.4). The table of variance analysis and ETA square identified relationships between participants' answers and the demographic variables. Evaluation of all services was lower than predicted. The highest rated construct was assurance with mean (3.0116), responsiveness with mean (2.8465), tangibles with mean (2.7843), reliability with mean (2.6914), and empathy with mean (2.5558). There were statistically significant differences in the students' evaluations of the first dimension (tangibles) associated with gender difference, with average evaluation by male students being (2.9532), and average evaluation by female students (2.6685); otherwise, demographic characteristics showed no statistically significant influence on students' evaluations.

INTRODUCTION

Higher education (HE) is a rapidly expanding service industry exposed to globalization processes (O'Neil & Plamer, 2004; Van Dammer, 2001). HE is typically delivered at universities, academies, colleges, seminaries, and institutes of technology, and is vital to a nation's individual, social, and economic development (Mukhtar et al., 2015). The purpose of HE traditionally was to advance knowledge and foster development, and promote creativity, scientific inquiry and innovation (Escotet, 2012). Additionally, Fortino (2012) described the preparation of students' minds a primary objective of HE.

LITERATURE REVIEW

The Role of Higher Education

Although historically HE sought to address the fluctuating needs and operational challenges in society, today financial realities and changing demographics drive the services available on modern campuses. Consequently, higher education institutions (HEIs) are increasingly interested in identifying and fulfilling students' expectations by measuring perceptions of quality of service (QoS) (DeShields Jr, 2005). Undoubtedly, successful completion and enhancement of students' educational journeys are central concerns. HEIs need to develop proactively to understand the constituents of student satisfaction in a competitive environment (Yusoff et al., 2015).

Definition of Service

Defining services can be complex, and therefore, before attempting to measure QoS it is crucial to determine whether what is being delivered is a process or an act. Services can also be value-creating activities offered to customers and simultaneously consumed and produced (Sapri et al., 2009). According to Lovelock (1980, 1983) these services can be grouped into three categories. First, services concerned with people-processing requiring customers' presence, such as healthcare. Second, services of possession-processing that include duties performed on physical objects without customer intervention, such as auto repair. Third, information-based services, which create value relating to data, such as banking services. Parasuraman et al. (1986) observes that services are distinguished by four unique characteristics, namely, intangibles, damage, indivisibility and changeability.

According to Loony et al. (2016), services are activities or processes characterized by impalpability and concurrency. Concurrency means completion of the service requires a service provider and a customer, both playing an active role. The diverse meanings accorded to service result in varying evaluations of QoS, even within the same organization (Berry et al., 1985). Thus, Johns (1999) suggested service context be carefully illustrated.

Higher Education as a Service

Herein, it is vital to remember that HEIs are both service organizations and educational ones. Within the university environment, the fulfilment of customer expectations has rarely been explicitly specified as an aim (Navarro et al., 2005). Students, university employees, families, and society as a whole can all be reasonably considered the university's customers. Today's HEIs are progressively viewing HE as a business-like service industry, and Oldfield and Baron (2000), argue that HE can be seen as a "pure" service (p. 86) and for Hennig-Thurau et al. (2001), educational services "come within the field of services marketing" (p. 332).

The measurement of QoS in HE is increasingly of great importance (Abdullah, 2006) to improve customer satisfaction, stimulate intention to return and encourage recommendations (Nadiri & Hussain, 2005). According to Hennig-Thurau et al. (2001), the promotion of educational services "fall[s] into the field of service marketing" (p. 332)." Moreover, QoS cannot be measured without bias (Patterson & Johnson, 1993). Universities are recognizing the need to adopt technologies to measure QoS. HEIs require a variety of information detailing the quality of their different academic and administrative services, so as to be able to prioritize resource allocation, and effectively promote marketing and promotion plans. This can include canvassing students (Darlaston-Jones et al., 2003; Hill, 1995; Lee & Tay, 2008) and researchers have questioned students systematically and rigorously to determine their satisfaction with the academic and administrative services provided to them. QoS is the main determinant of marketing strategies' effectiveness in the context of HEIs. Indeed, perceived QoS can create favorable or unfavorable attitudes among students with regard to institutions (as found by Zeithaml et al. (1996) when analyzing service influences) and may also affect Word-of-Mouth Marketing (WOM marketing).

To evaluate the quality of education, student satisfaction has been used frequently to assess institutions' ability to meet strategic needs (Cheng, 1990). Brown and Mazarol (2009) observed that if students view a university positively, then they are likely to be satisfied with the institution, and thus their level of loyalty will be high. Moreover, retention is related to perseverance, and so Demaris and Kritsonis (2008) hypothesized that students' overall satisfaction would result in their

returning to the same college. Nevertheless, Oldfield and Barron (2000) emphasize the "tendency to view QoS in higher education from an organizational perspective" (p. 86) at the expense of students' feedback.

Undoubtedly, determining students' opinions should ultimately have a positive impact on QoS delivery. Rowley (1997) determined four major reasons for gathering student feedback: (1) to provide verifiable evidence students have an opportunity to comment on their courses, and use this information to make improvements; (2) to encourage students to reflect as they learn; (3) to allow institutions to set standards and provide indicators to bolster the university's reputation in the market; and (4) give students an opportunity to express their satisfaction or otherwise.

Student's notes and comments can be pivotal in enhancing the quality of teaching in HEIs (Leckey & Neill, 2001). According to Harvey (2003), student feedback can be defined as:

> Students' expressed opinions about the service they receive as students. This may include perceptions about learning and instruction, learning support facilities (such as libraries, computing facilities), the learning settings (lecture halls, laboratories, social spaces and university campuses), support facilities (dining rooms, student residency, health facilities, student services) and the external aspects of being a student (such as financial affairs and infrastructure of transportation). (p. 3)

Universities mainly collect information in two forms; internal information as guidance for improvements, and external information for prospective students and other stakeholders, including accountability and compliance requirements.

Students' perceptions can vary and be collected relative to different aspects of the HE setting, with data most commonly collected via a feedback survey. This differs from other professional services in terms of methods. Education services play a pivotal role in student life, and students require enormous motivation and should be of sufficient intellectual quality to benefit from HE. This makes QoS a complex, multifarious concept in this context, resulting in a challenge determining quality definitively (Harvey & Green, 1993). Consequently, there is no consensus regarding "the most appropriate manner to define and measure QoS" (Clewes, 2003, p. 71). All stakeholders in HE (e.g., students, government and professional agencies) have their own unique viewpoints and expectations.

Measurements of Quality of Service

To ensure QoS requires improvement, it needs to be evaluated and measured. Parasuraman et al. (1988) defined QoS as a "global judgment or attitude pertaining to general excellence or service superiority" (p. 15) and envisioned customer's evaluation of overall service quality by applying Oliver's (1980) disconfirmation model to evaluate the gap between expectations and perceptions (Gap Model). Moreover, they proposed total QoS for each case be determined by a measurement scale called SERVQUAL utilizing five general dimensions: (1) tangibles - the physical surroundings represented by things (for example, interior design) and subjects (for example, employee appearance); (2) reliability - the ability of the service provider to provide accurate and reliable services; (3) responsiveness - the company's willingness to help its customers by providing fast and effective service performance; (4) assurance - various features that provide confidence to customers (such as knowledge of specific customer service; polite and trustworthy behavior from

employees); and (5) empathy – the service the company is prepared to render for each customer along with personal service (Oliveira & Ferreira, 2009; Yeo, 2009).

SERVQUAL has become a widely used QoS measurement scale since its development but its reliability across different domains is subject to controversy. When measuring QoS in HE, it is important to study the meaning of QoS in context. Currently there is no consensus regarding "the best way to determine and measure quality of service" (Clewes, 2003, p. 71). Every stakeholder in HE (e.g., students, government, and professional agencies) holds a different viewpoint regarding quality based on their individual needs. This paper focuses on representing the experiences and recommendations of a single group; students.

Some previous studies (Banwet & Datta, 2003; Galloway, 1998) have examined students' perceptions of quality and level of satisfaction using SERVQUAL framework (Parasuraman et al., 1988). However, SERVQUAL has been widely criticized because it only asks for perceptions of performance relative to a range of service aspects (in addition to importance), and therefore fails to capture data relating to expectations. Proposing an alternative to SERVQAL, Douglas et al. (2006) developed a "service product package" method to review student satisfaction in HE, addressing 12 dimensions: professionalism and comfort level in the environment, student assessments and learning experiences, the classroom environment, and the lectures and tutorials that facilitate goods, textbooks, tuition fees, student support facilities, business procedures, relationship with faculty, knowledge, response from faculty, employee assistance, feedback, and class sizes (p. 54). These dimensions are arranged according to four variables: physical goods, facilitating goods, implicit services, and express service. The Service Product Package method is more comprehensive than SERVQUAL (Jurkowitsch et al., 2006).

Research on QoS in Higher Education

A review of research reveals educational institutions globally have collected students' opinions to improve QoS. Reports on the economic profile of HEIs in the UK discovered that although the primary mission of HEIs is teaching and research, they collect 25% of revenue from additional sources, such as catering and conference fees (Galloway, 1998)

Galloway (1998) also reported that college management directly affects students and their perceptions of the quality of the entire institution. Employees also directly influence faculty members and technicians, with key predictors of perceived quality for students found to be having a professional appearance. Employees were smartly attired, and never too busy to offer help. Moreover, business hours were considered appropriate.

Despite differences across the European education system, levels of satisfaction among students have remained fairly stable. Communication with fellow students, course content, learning equipment, library storage, teaching quality, and teaching and learning materials are the factors most likely to influence satisfaction among students (García-Aracil, 2009). In Finland, research and education facilities, and fundamental university activities have a greater impact on overall student and employee satisfaction levels than supportive facilities (Kärnä & Julin, 2015).

In the Spanish university system, faculty, teaching methods, and course management have a major impact on levels of student satisfaction (Navarro et al., 2005), with some being affected by the university's public image (Palacio et al., 2002). The effect of a university's public image can be

either direct or indirect (Alvis & Raposo, 2006; Weerasinghe & Dedunu, 2017). In the Norwegian university system, the institution's reputation, the attractiveness of the host university city and the quality of the facility strongly affect levels of satisfaction among students (Hanssen & Solvoll, 2015).

The evidence suggests students' educational achievement is heavily based on the physical school facility available to them, its age, condition and the design of the school. School facilities are instrumental in supporting instruction and formulating students' learning processes both inside and outside the school environment. School buildings and infrastructure designed to support efficient teaching and learning require considerable investment of public funds, and careful development and maintenance by administrators.

According to Wilkins and Balakrishnan (2013), in the United Arab Emirates (UAE), there is a remarkable correlation between levels of student satisfaction and the quality of lecturers, the availability of resources and the efficient use of technology. In the Palestinian university system, academic program content greatly influenced students' level of satisfaction (Kanan & Baker, 2006).

According to Cook's (1997) study conducted with a group of 182 students in the field of nursing at a UK university, students perceive the following factors to be effective quality drivers: a) faculty member related factors, b) study factors (library and private study facilities, computer access, favorable study environments), c) general well-being factors, d) practice factors, and) extra-curricular activity factors. He concluded the most important factor affecting perceptions of service concern interactions between faculty members and students, and not how administrative staff communicate with students and teachers. Berger and Milem (1999) investigated aspects affecting the survival of undergraduates at a private institution in the Netherlands using a sample consisting of 718 students. They focused specifically on the social and academic inclusion of students, and concluded that students who had a more successful integration process were influenced by their home background (factors that the institution cannot control sufficiently).

Elsewhere, Brenders et al. (1999) conducted a study at an Australian university employing a focus group methodology with 145 undergraduate students. They concluded that bureaucratic issues and miscommunication can adversely affect students' beliefs about the quality of services. Tan and Kek (2004) proposed examining the overall satisfaction of students attending the engineering colleges of two universities in Singapore. A questionnaire was created using the SERVQUAL tool, and 958 usable returns were received (497 from University A and 461 from University B). The findings revealed that students at both universities expected a higher level of service regarding the availability of channels through which to transfer their ideas to management, and the willingness of universities to consider their views (communication problems). In Brazil, Walter (2006) identified key factors associated with student loyalty and satisfaction at a business program at the Catholic University of Paraná. Their study identified a number of uncontrollable variables affecting levels of satisfaction, such as students' and families' economic level, and associated social status. Mostafa (2007) presented a technical study based on a sample of 508 students at four private universities in Egypt, using the SERVQUAL instrument and an Importance of Performance (IP) analysis to measure QoS. His methodology focused heavily on student perceptions, including a factor analysis. He concluded that the requirements of the five dimensions set out in the SERVQUAL tool had not been achieved. However, he obtained three factors or dimensions of quality: (1) actual, service-oriented procedures associated with student registration, payment of fees, and registration, (2) university

employees directing services toward the student body, and (3) physical evidence concerning the importance of the physical service environment.

SIGNIFICANCE OF THE STUDY

Studies on assessing the quality of services offered by higher education institutes are scarce, particularly in developing countries. This study will contribute to the available data by addressing the topic in the context of Kingdom of Saudi Arabia (KSA). It is the first of such study to be conducted at the King Khalid University. It used an instrument similar to studies conducted by Mostafa (2007) to address the issue of service quality.

RESEARCH QUESTIONS

- What are students' perceptions of QoS based on a modified service quality (SERVQUAL) instrument measuring five constructs: tangibles, reliability, responsiveness, assurance, and empathy?
- Is there is any relationship between the students' perceptions and their demographic variables?

THE CONTEXT OF THE STUDY: KING KHALID UNIVERSITY (KKU)

The Saudi Ministry of Higher Education has established new universities to meet the high demand for HE. Among these new HEIs is KKU, which is located in Abha city, one of the most beautiful cities in KSA. The city of Abha is surrounded by fertile plains, mountains, and valleys, has a temperate climate, experiences torrential rainfall, and is surrounded by thick forests, which attract tourists every summer. KKU was founded by merging two previously established ancient university campuses, and offers a number of different majors across various colleges. (Higher Education in Saudi Arabia, 2019).

The university itself is considered a charming and comfortable environment for researchers and students alike. It has a major impact on the local community, and also plays a role in education more generally within the city (Higher Education in Saudi Arabia, 2019). Before 2000, graduate programs were not offered at KKU, but now several colleges offer programs, including the College of Education, College of Sharia, and the College of Arts. KKU is recognized as an innovative academic institution relative to other Saudi universities and is active in both postgraduate studies and research. In 2002, the number of undergraduates and graduate students reached 13,055, with the ratio of teachers to students being 1:29 (Al-Hamid et al., 2002).

KKU has fifteen colleges, with six research centers and three academic societies. Similar to other Saudi universities, KKU is managed by a chancellor, a vice-chancellor and an additional vice-chancellor for graduate studies and research. There are also several supporting deanships, including one for educational affairs and one for scientific research (Ministry of Education, 2020). The university's strategy, vision and mission include the pursuit of excellence in the field of knowledge and research, supported by use of advanced learning technologies and contributing to a more effective and competitive society. The university's objectives in terms of quality seek to benefit all stakeholders including taking a role in the international research arena

The Saudi government is aiming to develop new ways to finance HE by giving universities and other HEIs the opportunity to conduct paid scientific studies and consult with other Saudi

agencies. Almost 25% of external funding goes directly to the HEI concerned. Donations and gifts from individuals and organizations are welcome, assuming their motives do not contradict the university's mission and objectives (Ministry of Education, 2020).

METHODOLOGY

Research Design

The research methodology adopted here is quantitative, based on numerical data derived from closed- and open-ended questionnaires. Questionnaires kind of method is appropriate for researchers who want to obtain reliable data on a large scale in a systematic way (Gay, 1992). According to Peil et al. (1982), there is a greater likelihood of obtaining a higher response rate when questionnaires are distributed in person.

Research Participants

The research sample comprises students studying at one college at KKU, located in the southern region of Saudi Arabia. Students were selected using a suitable non-probability sampling method (Aaker et al., 1995). The administration at the university reviewed the purpose of the study, and after permission was obtained 500 questionnaires were distributed to the students at the college. Of these, 350 questionnaires were returned, 298 of which were deemed usable.

Research Instrument

Research questionnaires were created using Google Forms and distributed via WhatsApp. The questionnaire includes two sections. Section I collects demographics such as gender, age, year of education, and level of education. Section II is the SERVQUAL survey tool. The original SERVQUAL tool was designed to evaluate organizations and companies in the services domain (Aghamolaei & Zare, 2008; Parasuraman et al., 1988). However, the version used incorporated changes proposed by Aghamolaei and Zare (2008) to fit the academic environment. The questionnaire consists of 39 elements, representing five dimensions of QoS, namely tangibles (5 elements), reliability (5 elements), responsiveness (3 elements), assurance (4 elements), and empathy (4 elements). A 5-point Likert type scale was used, ranging from Strongly Disagree (1) to Strongly Agree (5). The SERVQUAL instrument was reviewed with a pilot sample of 50 respondents.

In addition, the measurements of accuracy (Alpha Cronbach) and level of total correlation of the groups measured covered the descriptive statistics and included the mathematical average for each term and its skewness, and coefficient curl. It also uses graphs to show distribution of the sample. The statistical tools used were divided into: Measurement of Reliability (Alpha Cronbach), Consistency and correlation level of terminology, Central tendency (Frequency, percentage, average and standard deviation), Correlation and One way ANOVA.

The reliability variable is defined as the result when dividing true variance against that obtained. If the true variance equals the obtained variance, the result = 1. Whenever the value of alpha is close to 1, the value of the reliability coefficient is high and the questionnaires are considered accurate. To measure the accuracy of each instrument against the total, the correlation level for each item is measured against the total for all terminologies. This is a measurement of instrument accuracy. Terminologies for all items were accurate in their measurement of the field of study, and the Byron Correlation values fell within 0.01. This indicates an accuracy level of 99%. Such a strong correlation level is expressed as (* *) in the analysis (SPSS).

The questionnaire was designed in English and translated into Arabic for respondents in Saudi Arabia. In order to pilot the questionnaire, it was distributed to four Saudi PhD students in education, two PhD students in management and two bachelor's degree students. The aim of piloting the questionnaire was to test how respondents understood it. After piloting, some changes were suggested and modifications made.

Data Analysis

To achieve the research objectives, the researcher employed statistical methods: Analysis of Variance and T-test for one sample, with a mid-point of 3.4 to determine perceptions of QoS based on the modified SERVQUAL instrument in reference to five constructs: tangibles, reliability, responsiveness, assurance, and empathy. A table of variance analysis and the ETA square were performed to establish possible relationships between participants' answers and demographic variables.

FINDINGS

The student perceptions of the quality of services offered by the university were analyzed by using one sample t-test with 3.4 as the mid-point for comparison. The results of the analyses show that the perceptions for all the surveyed services to be lower than anticipated as the experimental average for all items was below the established cutoff point (3.4) and the differences reported were statistically significant. I have been selecting this method (cutoff point) depending on many considerations, i.e all participant are belong to one population, so all of them have subjugated to the same five constructs. And the placement of the cutoff at extreme values reduces the power to detect the possible relationships. (See Table 1.)

Table 1. One-sample statistics for perceptions of QoS

Items	N	Mean	SD	Std. Error Mean	t	df	Sig. (2-tailed)
Modern and up to date equipment	258	2.90	1.247	.078			
Visual appeal of physical facilities	258	2.34	1.308	.081	-13.052-	257	.000
Neat and well-dressed staff	258	2.72	1.265	.079	-8.571-	257	.000
Visual appeal of materials	258	2.49	1.309	.082	-11.185-	257	.000
Convenient operating hours	258	2.76	1.300	.081	-7.861-	257	.000
Staff are disciplined	258	2.98	1.317	.082	-5.067-	257	.000
Visually attractive and comfortable physical facilities	258	2.55	1.320	.082	-10.292-	257	.000
Good directional signs	258	3.07	1.368	.085	-3.878-	257	.000
Convenience of university location for you	258	3.26	1.631	.102	-1.382-	257	.168
Well-developed infrastructure (including Wi-Fi)	258	2.49	1.456	.091	-10.017-	257	.000
Adequate seating arrangement	258	2.32	1.398	.087	-12.438-	257	.000
Well air-conditioned environment	258	3.22	1.458	.091	-1.973-	257	.050

Items	N	Mean	SD	Std. Error Mean	t	df	Sig. (2-tailed)
Clean looking environment	258	3.49	1.306	.081	1.087	257	.278
Good services at the library	258	3.11	1.354	.084	-3.458-	257	.001
Enough private desks	258	2.21	1.420	.088	-13.514-	257	.000
Staff respond promptly to students	258	2.67	1.328	.083	-8.825-	257	.000
Staff always help students	258	2.83	1.289	.080	-7.157-	257	.000
Staff respond promptly to queries	258	2.81	1.321	.082	-7.221-	257	.000
Speed and ease of admissions (procedures)	258	2.93	1.382	.086	-5.460-	257	.000
Faculty members work well to improve performance	258	3.00	1.314	.082	-4.888-	257	.000
Students trust staff	258	2.61	1.281	.080	-9.927-	257	.000
Students feel safe when receiving services	258	2.98	1.329	.083	-5.022-	257	.000
Staff are courteous to students	258	3.06	1.272	.079	-4.315-	257	.000
Professors have the knowledge to answer students' questions	258	3.27	1.304	.081	-1.585-	257	.114
Employees have the knowledge to answer students' questions	258	3.05	1.259	.078	-4.412-	257	.000
Employees are polite to students	258	3.09	1.287	.080	-3.831-	257	.000
Providing services as promised	258	2.87	1.330	.083	-6.374-	257	.000
Sincere interest of personnel in solving problems	258	2.83	1.250	.078	-7.279-	257	.000
Carrying out services right first time	258	2.69	1.388	.086	-8.217-	257	.000
Providing services at appointment time	258	2.74	1.309	.081	-8.145-	257	.000
Stating when services will be performed	258	2.78	1.330	.083	-7.501-	257	.000
Commitment to providing healthy and varied food choices	258	2.34	1.390	.087	-12.195-	257	.000
Sincere interest in solving student problems at the university	258	2.53	1.318	.082	-10.593-	257	.000
Persistence in performing services correctly	258	2.74	1.252	.078	-8.411-	257	.000
Give individual attention	258	2.38	1.291	.080	-12.738-	257	.000
Dealing with students with care and diligence	258	2.58	1.205	.075	-10.967-	257	.000
Supporting students with their talents and interests	258	2.83	1.377	.086	-6.702-	257	.000

Items	N	Mean	SD	Std. Error Mean	t	df	Sig. (2-tailed)
Understanding the specific needs of students	258	2.49	1.264	.079	-11.537-	257	.000
Offering comfortable and fitting schedules for students	258	2.51	1.439	.090	-9.957-	257	.000
Tangibles	258	2.7943	.97099	.06045	-10.019-	257	.000
Responsiveness	258	2.8465	1.13522	.07068	-7.831-	257	.000
Assurance	258	3.0116	1.08356	.06746	-5.757-	257	.000
Reliability	258	2.6914	1.10914	.06905	-10.262-	257	.000
Empathy	258	2.5558	1.13374	.07058	-11.960-	257	.000
Total	258	2.7827	.94782	.05901	-10.460-	257	.000

The values of the quality of services were rank-ordered in each of the five service dimensions as perceived by the students. In light of the arithmetic means, the degree of student perceptions are presented in the following by each dimension, tangible, responsiveness, assurance, reliability and empathy.

As a result of the data analysis, the findings indicated that the student perceptions of the tangible items offered at the university were lower than expected. The highest ranked item was "Clean look environment" and the lowest ranked item was "Private Desks". (See Table 2.)

Table 2. The order of tangible items in light of the arithmetic mean

Items	N	Mean	Std. Deviation
Clean looking environment	258	3.49	1.306
Convenience of university location for you	258	3.26	1.631
Well air-conditioned environment	258	3.22	1.458
Good services at the library	258	3.11	1.354
Clear directional signs	258	3.07	1.368
Staff are disciplined	258	2.98	1.317
Modern and up to date equipment	258	2.9	1.247
Convenient operating hours	258	2.76	1.3
Neat and well-dressed staff	258	2.72	1.265
Visually attractive and comfortable physical facilities	258	2.55	1.32
Visual appeal of materials	258	2.49	1.309
Well-developed infrastructure (including Wi-Fi)	258	2.49	1.456
Visual appeal of physical facilities	258	2.34	1.308
Adequate seating arrangement	258	2.32	1.398
Enough private desks	258	2.21	1.42

Students' perceptions of the responsiveness at the university was analyzed and the items in this dimension were rank-ordered from "Faculty members work well to improve performance" on top and "Staff give prompt service to students" at the bottom. All the items in this responsiveness dimension were perceived by students to be below anticipation. (See Table 3.)

Table 3. The order of responsiveness items in light of the arithmetic mean

Items	N	Mean	Std. Deviation
Faculty members work well to improve performance	258	3	1.314
Speed and ease of admissions (procedures)	258	2.93	1.382
Staff always help students	258	2.83	1.289
Staff respond promptly to queries	258	2.81	1.321
Staff give prompt service to students	258	2.67	1.328

Students' perceptions of the assurance of university service quality were also below the expected level. The top-ranking item was "Professors have the knowledge to answer students' questions" and the low-ranking item was "Students trust staff." (See Table 4.)

Table 4. The order of assurance items in light of the arithmetic mean

Items	N	Mean	Std. Deviation
Professors have the knowledge to answer students' questions	258	3.27	1.304
Employees to polite with students	258	3.09	1.287
Staff are courteous to students	258	3.06	1.272
Employees have the knowledge to answer students' questions	258	3.05	1.259
Students feel safe when receiving services	258	2.98	1.329
Students trust staff	258	2.61	1.281

Moreover, students' perception of the reliability of university service quality was also below the expected level. "Providing service as promised" was on top of all the items and "Commitment to providing healthy and varied food." was ranked the lowest. (See Table 5.)

Table 5. The order of reliability items in light of the arithmetic mean

Items	N	Mean	Std. Deviation
Providing service as promised	258	2.87	1.33
Sincere interest of personnel in solving problems	258	2.83	1.25
Telling when services will be performed	258	2.78	1.33
Providing services at appointment times	258	2.74	1.309
Persistence in performing services correctly	258	2.74	1.252
Carrying out services right first time	258	2.69	1.388
Sincere interest in solving student problems at the university	258	2.53	1.318
Commitment to providing healthy and varied food	258	2.34	1.39

Students' perception of the empathy of university service quality was also below the expected level. "Supporting students with their talents and interests" was ranked the top. " Give individual attention" was ranked at the bottom. (See Table 6.)

Table 6. The order of empathy items in light of the arithmetic mean

Items	N	Mean	Std. Deviation
Supporting students with their talents and interests	258	2.83	1.377
Dealing with students with care and diligence	258	2.58	1.205
Offering comfortable and fitting schedules for students	258	2.51	1.439
Understanding the specific needs of students	258	2.49	1.264
Give individual attention	258	2.38	1.291

All the five dimensions of service quality were rank-ordered with the highest rated dimension as assurance with a mean of (3.0116), followed by responsiveness with a mean of (2.8465), tangibles with a mean of (2.7843), reliability with a mean of (2.6914), and then empathy with a mean of (2.5558). (See Table 7.)

Table 7. The order of dimensions in consideration of the arithmetic mean

Constructs	Mean
Assurance	3.0116
Responsiveness	2.8465
Tangibles	2.7943
Reliability	2.6914
Empathy	2.5558

The average of each dimension, Tangibles Responsiveness Assurance Reliability and Empathy was analyzed by gender, age and education level of the students. The results shown in the table of variance analysis and the ETA square analysis were collated to establish any relationships between the participants' perceptions and their demographic variables.

Students' perception data by gender and by dimension were analyzed by descriptive statistics of means and standard deviations. Results of data analysis depict that the presence of statistically significant differences in the degree of student perceptions for the first dimension (Tangibles) were associated with gender difference. The average male perception of "Tangles" was 2.9532, and the average "Tangibles" perception of female students was 2.6685. Additionally, it reveals that there were no statistically significant differences between males and females in the degree of students' perceptions for the dimensions of Responsiveness, Assurance, Reliability and Empathy. (See Tables 8 and 9.)

Table 8. Descriptive statistics for constructs in light of gender

Gender		Tangibles	Responsiveness	Assurance	Reliability	Empathy
Male	Mean	2.9532	2.8667	3.1360	2.8344	2.6351
	N	114	114	114	114	114
	SD	.99793	1.17697	1.05725	1.12340	1.13831
Female	Mean	2.6685	2.8306	2.9132	2.5781	2.4931
	N	144	144	144	144	144
	SD	.93350	1.10493	1.09760	1.08831	1.13011
Total	Mean	2.7943	2.8465	3.0116	2.6914	2.5558
	N	258	258	258	258	258
	SD	.97099	1.13522	1.08356	1.10914	1.13374

Table 9. The results of ANOVA table for constructs in light of gender

Variables	Source of variance		Sum of Squares	df	Mean Square	F	Sig.
Tangibles * Gender	Between Groups	(Combined)	5.157	1	5.157	5.567	.019
	Within Groups		237.146	256	.926	.926	
	Total		242.303	257			
Responsiveness * Gender	Between Groups	(Combined)	.083	1	.083	.064	.800
	Within Groups		331.119	256	1.293	1.293	
	Total		331.202	257			
Assurance * Gender	Between Groups	(Combined)	3.158	1	3.158	2.707	.101
	Within Groups		298.585	256	1.166	1.166	
	Total		301.743	257			
Reliability * Gender	Between Groups	(Combined)	4.180	1	4.180	3.430	.065
	Within Groups		311.980	256	1.219	1.219	
	Total		316.160	257			
Empathy * Gender	Between Groups	(Combined)	1.284	1	1.284	.999	.319
	Within Groups		329.053	256	1.285	1.285	
	Total		330.336	257			
Total * Gender	Between Groups	(Combined)	3.057	1	3.057	3.435	.065
	Within Groups		227.824	256	.890	.890	
	Total		230.881	257			

The association between the dimensions of students' perceptions of services at the university and the gender of the students was measured by using ETA Square. Results of the analysis showed that the associations of all the perception dimensions and student gender were weak. (The levels of ETA square are determined as 0.02 weak, 0.05 medium, 0.15 high). (See Table 10.)

Table 10. Measures of association by dimension and by student gender

Variables * Gender	Eta	Eta Squared
Tangibles * Gender	.146	.021
Responsiveness * Gender	.016	.000
Assurance * Gender	.102	.010
Reliability * Gender	.115	.013
Empathy * Gender	.062	.004
Total * Gender	.115	.013

The association between the students' perceptions of services at the university and student age was also measured. Results of the analysis showed that the associations were weak among all the perception dimensions and student age with ETA square less than 0.02. (See Table 11.)

Table 11. Measures of association by dimension and by student age

	Eta	Eta Squared
Tangibles * Age	.072	.005
Responsiveness * Age	.084	.007
Assurance * Age	.074	.006
Reliability * Age	.076	.006
Empathy * Age	.092	.008
Total * Age	.065	.004

The association between the dimensions of students' perceptions of services at the university and students' years of education was also measured by using ETA Square. Results of the analysis showed that all the associations were weak with ETA square values less than 0.02. (See Table 12.)

The associations of the dimensions of students' perceptions of university service quality and student education level were measured. Results of the analysis showed that all the associations were weak with ETA squares less than 0.02. (See Table 13.)

The descriptive statistics and ANOVA results for all the dimensions by education level, age, and year of education showed no statistically significant differences in the student demographic variables. Therefore, the tables showing these calculations have not been included in the paper.

Table 12. Measures of association by dimension and by student year of education

	Eta	Eta Squared
Tangibles * Year of Education	.073	.005
Responsiveness * Year of Education	.089	.008
Assurance * Year of Education	.091	.008
Reliability * Year of Education	.097	.009
Empathy * Year of Education	.160	.026
Total * Year of Education	.100	.010

Table 13. Measures of Association

	Eta	Eta Squared
Tangibles * Education_level	.054	.003
Responsiveness * Education_level	.123	.015
Assurance * Education_level	.151	.023
Reliability * Education_level	.149	.022
Empathy * Education_level	.152	.023
Total * Education_level	.125	.016

Summary of Findings

The overall students' perceptions of service quality at the university were as follows: The highest rated dimension was assurance with a mean of 3.0116, then responsiveness with a mean of 2.8465, tangibles with a mean of 2.7843, reliability with a mean of 2.6914, and empathy with a mean of 2.5558. Statistically significant differences emerged in the degree of the students' perceptions for the first dimension (tangibles) due to gender difference, and the differences present favored males, with the average perception of male students being 2.9532, and that of female students, 2.6685. There were no statistically significant differences in the degree of students' perceptions of the remaining dimensions. The association between the dimensions for students' perceptions of services at the university with the gender of student is weak. No statistically significant differences were found in relation to age. The association between the dimensions of student's perceptions of services at the university and the age of the students proved to be weak. There were no statistically significant differences in the degree of the students' perceptions of all the dimensions in light of year of education. The association between the dimensions of students' perceptions of services at the university and year of education was weak. There were no statistically significant differences in the degree of students' perceptions for all the dimensions in light of the students' education level. Meanwhile, the association between the dimensions of students' perceptions of services at the university and education level was also weak.

DISCUSSION

In HE settings, students are the principal customers and recipients of university services. Thus, to ensure their continued viability, universities need to attract their patronage and retain it by ascertaining students' perceptions of QoS and the factors that inform them. This article measured the perception of QoS in HE from the perspective of students studying at a college at KKU in KSA, allowing for the possibility of confounding factors arising from demographic characteristics.

Levels of satisfaction among students remained relatively comparable. Communication with fellow students, course content, learning equipment, library storage, teaching quality and teaching/learning materials all had considerable influence on students' levels of satisfaction (García-Aracil, 2009). Similarly, in Finland, research and education facilities, and basic university activities greatly influenced students' and employees' satisfaction levels overall; more so than supportive facilities did (Kärnä & Julin, 2015).

According to Cook's (1997) study, the most representative factor affecting the perception of services was interaction between faculty and students. The findings of this study are different. Only 14% of the students were concerned about this aspect of faculty and student interaction. They were requesting an opportunity to express their opinions and complaints.

This research further found statistically significant differences in the degree of students' perceptions for the first dimension (tangibles) arising from gender differences. Gender differences in students' perceptions were not reported elsewhere in the literature.

IMPLICATIONS TO HIGHER EDUCATION PLANNING

The study also found the association between the dimensions of students' perceptions of services at the university and their education level was weak. This suggests the university needs to carefully prepare a strategic plan to improve all the academic related services at the university. The highest rated construct is assurance, with a mean of (3.0116), which could be associated with the university's vision and mission to attain a regional and global leadership role, achieving excellence in the field of knowledge and research, and contributing to a more effective and competitive society.

KKU's mission is to provide high-quality education and innovative research within the academic environment, to provide valuable and useful services to society, and apply the most advanced technologies associated with knowledge. All these aims are difficult to achieve in an environment with low QoS. It is hoped that this study will attract the attention of future researchers' thinking on the issue of QoS, and its relationship to student achievements at KKU and other Saudi universities. It is vital to conduct further research to ensure that increases in budgets are directed towards achieving improvements in those areas that influence perceptions of QoS and student loyalty the most. Superior QoS can inform a university's reputation and add to its appeal for students. Ideally, KKU is positioned geographically to attract students. However, the evidence presented here illustrates that changes to its service delivery are imperative if it is to enhance its reputation as a new university in KSA.

CONCLUSION

The researcher believes the topic service quality in HE directly informs students' satisfaction, achievements and the entire educational process. Thus, it is hoped the Ministry of Education will benefit from the results and recommendations made by this study and strive to provide the highest quality services to the students. In addition, this research offers a launch point from which to investigate the importance of high-quality services in HE in depth, to compare them

with HE systems in developed countries. It may also serve as a guide to future researchers wishing to conduct similar studies elsewhere in KSA. Despite the research strengths, the present study is limited in terms of generalizability, although it is anticipated that similar characteristics would be observed in other Saudi universities. Finally, in conclusion, this researcher hopes the questions addressed here will encourage others to investigate service quality in Saudi HEI settings.

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