SERVICE QUALITY ASSESSMENT OF INFRASTRUCTURE IN ARTS AND SCIENCE COLLEGES IN SALEM DISTRICT, TAMIL NADU

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ABSTRACT

This study's goal is to evaluate the infrastructure's level of support for the arts and scientific colleges in Tamil Nadu's Salem region. Descriptive research methods were employed in the study.To choose the sample from the population, the convenience sampling approach was used. Three primary factors—"Classroom infrastructure," "Multimedia technology," and "Campus and amenity infrastructure"—were gleaned via a factor analysis. The students attending arts and scientific colleges in the Salem area are the subject of this study. This study, which was previously carried out in higher education settings, also showed that facilities and ancillary features had an effect on students' satisfaction both directly and indirectly. This idea is crucial because higher education institutions must always work to raise the calibre of their offerings.

Key words: *Assessment, Colleges, Service quality, Students, Infrastructure.*

Introduction

People have been able to live better lives, have more stable economies, and have greater access to healthcare thanks to higher education for many years. Numerous higher education institutions around the world also struggle with intense competition on a global scale, complicated socioeconomic demography, and confusing market demand. First, institutions from developed nations like the US, UK, and France have been expanding their international networks by opening branch campuses abroad as a result of globalisation and the rise in demand for international education, including in the United Arab Emirates, China, Singapore, Qatar, and South Korea (Guimon, 2016).Excellence is quality, value is quality, and compliance to specifications are some of the different ways that (Pariseau&McDaniel, 1997) characterised the concept of quality. When describing service quality in 1985, Parasuraman et al. used the phrase "meeting and/or exceeding customers' expectations.According to the definition of quality given by the dictionary, it is "the standard of anything as assessed against all other objects of a same kind or level of perfection about something" (Hornby & Lea, 2005). Service quality, according to Parasuraman et al., is a product or service's ability to satisfy consumer expectations (1985). The guiding principles that place an emphasis on the idea of service excellence are as follows: 1. Measuring the quality of a service is more difficult than doing it for a product.2. Customer's view on service quality is important and 3. The distinction between the outcome of the service and the customer's prior expectations is referred to as service quality. The higher educational institutions have multiple users such as students, teachers, employees, alumni, and others (Kara & W. DeShields, 2004). However, in higher education, students are the key consumer (Hill, 1995). "Customer happiness and service quality are key ideas and service quality is seen as crucial in every modern firm since it helps to increase customer pleasure, profitability, reduce expenses, and improve customer loyalty and retention" (Temba, 2013). Customer happiness and service quality, according to (Sureshchandar et al., 2010).There

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are four basic categories for assessment goals.: (i) evaluating current service levels; (ii) monitoring performance toward desired levels; (iii) identifying specific problem areas or services that need improvement; and (iv) justifying resource allocation. Four goals for assessment are (i) creating a "benchmark" to gauge the quality of the service; (ii) evaluating the services of other institutions; (iii) defending the necessity of the students; and (iv) identifying potential problems and their root causes. Assessment's main objective is to evaluate infrastructure facility es and operations in order to make specific recommendations for improvement.

Background of the Study

The effectiveness and competitiveness of a university are significantly influenced by the quality of its higher education services, according to marketing literature (Hill, 1995; Timac&imi, 2012). In recent service research on a number of subjects, such as the identification, measurement, and implementation, it has also grown more prevalent (Chong & Ahmed, 2012). Over the past few decades, service quality has drawn the attention of practitioners, managers, and academics due to its major effects on business performance, cost savings, customer happiness, brand loyalty, and profitability (Cronin and Taylor, 1992; Gammie, 1992; Hallowell, 1996; Cheng & Cheung, 1997; Gummeson, 1998; Lassar et al., 2000; Newman, 2001). Sureshchander and others (2002) Many companies, especially those in the service industry, place a high value on service quality to gain a competitive edge (McColl et al., 1998). They contend that in order for businesses and organisations to develop and maintain a respectable degree of competitiveness in the current world, quality must be prioritised as one of the most significant indicators of an organization's performance in an industry (Farahmandian et al., 2013).Similar to this, according to Edvardsson (1998), a lot of entrepreneurs view service quality as the cornerstone of marketing because it can help them establish long-lasting competitive advantages and increase revenue (Hoe, 2004).

Parasuraman, Zeithaml, and Berry have made the most significant advancements in the assessment of the calibre of a particular service (1985).According to Chou et al. (2011), the distinction between how customers view the services provided by various providers is what constitutes service quality (Oldfield & Baron, 2000). The gap between what customers perceive of a company's services and what they anticipate from companies that supply those services, according to Chou et al. (2011), is what is referred to as service quality (Oldfield & Baron, 2000). A significant consumer trend is the pursuit of quality, as per Parasuraman et al (1985). Measuring customer satisfaction and perceived quality is the only focus of the whole service industry. In 1985,Parasuraman et al. presented the most well-known list of 10 criteria that can be used to assess the calibre of any service. Parasuraman et al. conducted an evaluation of how clients rate the quality of the services they receive. (1988) condensed the 10 criteria down to five, and created the 22-item SERVQUAL instrument using empirical data. This new model has five parts, including "tangibles," which include the state of the physical infrastructure, machinery, personnel, and communications resources at the moment. "Responsiveness" is the ability to help customers and provide prompt service; "reliability" is the ability to carry out the promised service consistently and accurately; "assurance" is the knowledge and courtesy of staff members and the ability to convey trust and confidence; and "empathy" is the caring and individualised attention the company provides and was developed by (Parasuraman, et. al., 1988). Numerous changes have been made to SERVQUAL's dimensions to accommodate the requirements of various industries, including the travel and hospitality sectors (Rauch et al., 2015), healthcare services (Kilbourne et al., 2004), and banking, despite the fact that SERVQUAL has been adopted by many service categories since its inception

(Ganguli & Roy, 2011). Interesting to note is that numerous studies have emphasised the value of top-notch service at academic institutions (Ilias et al., 2009; Atiyaman, 1997; Lee, 2000). A school will be able to satisfy student expectations and prevail if it possesses all of these features (Annamdevula, 2012).As part of their overall growth, students are only given experiences that are quality-focused on the provision of services.

Significance of the Study

This study primarily focuses on the student's perspective because it is believed that they are the key clientele of higher education institutions, in an effort to create a more acceptable assessment for service quality (Hill, 1995). (Molesworth) 2011 (Molesworth). Although there are several diverse components of service quality, they can be divided into two major categories: institutional features and individual characteristics (Appleton-Knapp &Krentler, 2006).This study focuses on the infrastructure amenities provided by the colleges of arts and sciences.

Objectives

The study's primary objective is to assess the infrastructural facilities in terms of the level of service that the art and scientific institutions in the Salem district offer.

Methodology

This investigation's goal is to assess the infrastructure services provided by the art and science colleges in the Salem region.Students attending arts and scientific universities in the Salem district served as the study's respondents. The students were given roughly 350 questionnaires, and they returned nearly 380 of them with all the questions answered. 380 people made up the study's final sample size. Data from the respondents was gathered using a structured questionnaire, and analysis was performed using IBM SPSS 26.Students enrolled in various arts and scientific colleges in and around Salem districts provided the data for the current study. Gender, age, course of study, degree, year of study, and family monthly income were the demographic factors used in this research. The quality of the infrastructure service was assessed using 15 criteria that describe the infrastructure facilities provided by the institutions in the study region. The following replies are graded on a Likert scale of 1 to 5: Strong disagreement is denoted by 1, disagreement by 2, neuronal opinion by 3, agreement by 4, and strong agreement by 5.The distribution of the respondents' demographic data was determined using percentage analysis. The infrastructure service quality of the colleges for the arts and sciences was evaluated using factor analysis. The reliability score for the 15 items is 0.801, which indicates that the questionnaire is reliable and exceeds the recommended value of 0.07 by Hair, Black, Babin, and Anderson (2010).

Analysis of Data

Table 1
Percentage analysis of the respondents

Particulars	Category	Quantity of Respondents	Percentage
Gender	Male	190	59.4
	Female	130	40.6
Age	Below 21 years	66	20.6
	22-25 years	180	56.3
	Above 25 years	74	23.1
Stream	Arts	115	35.9
	Science	205	64.1
Degree	UG	165	51.6
	PG	155	48.4
Year of study	1st year	74	23.1
	2nd year	143	44.7
	3rd year	103	32.2
Family monthly income	Below Rs.20000	89	27.8
	Rs.20001-Rs.40000	156	48.8
	Above Rs.40000	75	23.4

Source: primary data compiled by theauthor

Table 2
Results from Factor analysis

Variables	*Factor 1*	*Factor 2*	*Factor 3*
Library has sufficient number of latest books in print or electronic form as per requirement.	0.826		
Infrastructure to conduct online classes and examinations.	0.760		
The simplicity of classroom use (air conditioning, acoustics, lighting, space)	0.723		
Cleaning and maintaining the restrooms, hallways, and other facilities in the classroom	0.710		
In suitable classrooms, there are desks that are available and comfortable to use with computers or other devices.	0.680		
Provision of Internet/Wi-Fi facility.		0.835	
The virtual classroom is interactive and user-friendly.		0.817	
Availability of well-equipped, contemporary computer laboratories		0.771	
Available multimedia options in classrooms with equipment (projectors, computers, LED screen, sound system etc)		0.720	
Parking options on campus and/or the neighbouring area			0.791
Security on the property, as well as around the institution			0.769
Using public transportation to get to the institution			0.635
Availability of Food service (canteens and cafeterias).			0.579
Service options and standards for reproduction (photocopies & bindings)			0.556

Findings and Interpretations

According to gender, age, stream, degree, year of study, and family monthly income, Table 1 displays the distribution of respondents. With 59.4% of the total 320 respondents, men made up the bulk of those who took the survey.Respondents with the age group between 22-25 years were 56.3%. 64.1% of the respondents were from science stream. 51.6% of the respondents were UG students. 44.7% of them were 2nd year students. 48.8% of the respondent's family monthly income falls between Rs.20001-Rs.40000.

Table 2 shows the findings of the factor analysis. The extraction approach was utilised to analyse the 15 items in the questionnaire which was used to gauge the quality of infrastructure services provided to college students, principal component analysis. The Bartlett's Test of Sphericity value is "1573.256," the df is "91," the significance value is "0.000," and the df is "91." The value of "0.717" for the Kaiser-Meyer-Olkin Measure of Sampling Adequacy." Factors 1 and 3 each have a cumulative total variance of 20,714, 39,468 and 55,801 correspondingly. In the first factor, five items combined together and named as 'Class room infrastructure', the second factor has five loadings and named as 'Multimedia technology' and the third factor has five loadings and named as 'Campus and amenity infrastructure'.

Discussion and Educational Implications

This study has assessed the service quality of infrastructure in arts and science colleges. Factor analysis extracted three main factors namely 'Class room infrastructure', 'Multimedia technology' and 'Campus and amenity infrastructure'Students' opinions are raised by modernising the college's tools, improving the cleanliness and aesthetic appeal of the classrooms, projectors, and whiteboards as well as the professionalism of the teachers and staff. Studies carried out in the past in higher education settings show that amenities and ancillary features have an effect on students' satisfaction both directly and indirectly (Akdere, Top, and Tekingündüz, 2020). 2016 (Cho & Hyun).Furthermore, Isa and Yusoff (2015) in his study stated that lecture halls, labs, libraries, sports facilities, water, power, furniture, and stores were the essential facilities required in tertiary institutions. Hanssen and Solvoll (2015) found a significant and favourable association between students' opinions of the university's physical facilities and their general happiness with the school.Although services in Kenya were rated above average, According to Kara et al. (2016), students' assessments of the infrastructure and amenities were noticeably below average, which was reflected in their level of satisfaction.Students' happiness is negatively impacted by the general dearth or insufficiency of academic or instructional resources in HEIs in Africa (Isa and Yusoff 2015). In 2016 (Kara et al.).The study found out that students give more preference to the

infrastructure facilities in their colleges. They concentrate more on classroom environment which makes them to learn peacefully and able to have a cordial relationship with students and students. Multimedia technology ensure the students learn their subjects actively with all latest technology and hands on training. The presence of a canteen and other amenities allows students to unwind, while easy access to transit guarantees their safety.

Conclusion

The major objective of the current study was to assess the facilities and quality of service provided by the art and scientific institutes in the Salem area.The characteristics of service quality as well as the infrastructure quality in the arts and scientific institutions in the Salem area are being examined for the first time in this study. This concept is essential because institutions of higher learning must always seek to improve the calibre of their offerings. The educational industry can be inspired by service excellence, and this can have a long-lasting impact on the institution and the students it serves.Thus higher educational institutions' top management need to understand their students' expectations on various features such as infrastructure, classroom environment, student support facilities, multimedia technology etc., to plan for better change in the expected services provided by these institutions. The current study has some restrictions. The main limitation concerns the variables used in this study. There are many more variables such as teaching staff skills, academic and non-academic facilities, social life, exam methods etc. Further studies may include these variables. They can also focus on Engineering colleges, medical colleges, polytechnic colleges and other higher educational institutions in and around Salem district. They can also extend the study to other districts in Tamil Nadu and other parts of the country. Another limitation of the study is only the infrastructure facilities provided inside and outside the classroom are considered in this study. The third limitation is the samples; further study can increase the sample size and can select the respondents from the well-reputed institutions. Because their expectations may vary from the respondents who participated in this study. Further study can employ stratified sampling method to overcome these limitations.

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