

Effect of Facilities Management Service Quality on User Satisfaction and Institutional Image

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Abstract

The rapid change in all sectors of human endeavour disrupts the way businesses, organisations and institutions conduct their activities. In the service industry, provision of high quality service becomes the trending issue as service users increasingly becomes sophisticated. Studies have shown that provision of high quality service improves institutional image and influences level of users' satisfaction. The aim of this study is to investigate the effect of facilities management services quality on users' satisfaction and institutional image in Gombe State University (GSU) with a view to providing evidence-based information for managerial decision. Using survey strategy, 666 questionnaires were administered, of which 458 were retrieved and used for analysis. The result show that FM service quality has statistically significant effect on institutional image ($\beta = 0.979$; $t = 473.10$; $p < 0.05$) and user satisfaction ($\beta = 0.990$; $t = 1483.32$; $p < 0.05$). The overall model performance indicated that FM service quality explained about 96% and 98% variation in institutional image and users' satisfaction respectively. It is recommended that decision makers in higher education institutions (HEIs) should pay more attention to the management and upgrading of both core learning facilities and other support services to ensure sustained user satisfaction and institutional image.

Keywords: Facilities management, higher education institutions, learning environment, service quality, students' achievement

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01.0 INTRODUCTION

Facilities management is defined as a profession that integrates people, place, process, and technology to assure the operation of the built environment (kindly see International Facilities Management Association - IFMA). One of FM's tasks is to ensure workplace productivity for optimal user cohabitation. Traditionally, FM was thought to be the common duty of cleaning, repairing, and maintaining (Atkin & Brooks, 2010; Lavy & Shohet, 2010). However, FM is increasingly recognized to include various support services like as catering, security, automobile fleet services, postal delivery, reception, and so on.

FM is critical for the long-term sustainability of the massive infrastructure found in Higher Education Institutions (HEIs). Facilities account for 80 percent of the fixed assets owned by organizations and institutions such as universities (Kamarazaly et al., 2013). Furthermore, after staff salaries, facility expenditures are the second largest among HEIs (Ibrahim et al., 2011). These facilities are intended to assist the HEIs' main aims of teaching, learning, and research. As a result, questions concerning the administration of such facilities are of constant interest to all players. FM service consumers in typical university settings can be classified as students, employees, visitors, and the general public (Shafie et al., 2012). Effective FM practice should be geared toward meeting the demands of these types of users of facilities found in HEIs.

In a HEIs setting, satisfaction covers issues of user perception and experiences during their academic years. Over the years, the environment of HEIs is rapidly changing. This stem from the general trend of globalisation which shapes the way individuals, institutions, organisations and governments operate. With increasing competition across all sectors, ensuring service users' satisfaction is becoming a key success factor in many corporate organisations, institutions of higher learning and other service sectors. In the context of higher education institutions (HEIs), users (students)' satisfaction refers to users (students) expectations from the institution. Fulfilling this expectation should be one of the cardinal goals of the decision makers in the HEIs in that improvement in user satisfaction has been linked to positive reputation and subsequently increased patronage.

According to Kotler and Armstrong (2012), institutional image is an impression of an institution in the mind of the user which can be formed through innumerable university related attributes. Results from previous studies indicated that higher level of service quality create a positive image in the eyes of the facilities user (Mohammad et al., 2012). This implies that user satisfaction with facilities provided in an institution can attract more patronage. Thus, institutional image is a significant driver of user patronage and user satisfaction (Ishaq, 2012).

Gombe State University (GSU) is a public-owned university established in the year 2004 with the mission of providing opportunities for higher quality university education through the creation of an enabling environment, where teachers and students can excel in teaching, research and learning. One of the core values of the university as glaringly captured on the university's website is to ensure an excellent serene physical and academic environment. The university earned public recognition as one of the 'greenest' campus in the North-East geo-political zone of Nigeria (Wunubo et al., 2022). However, evidence on the current state of learning environment in the university negates this narrative as well as one of the core values of the University of ensuring an excellent serene physical and academic environment. For instance, Ardo (2021) found that physical facilities in the university such as classrooms, administrative blocks, hostels and offices were defective with the level of defect ranging from medium severity to high severity. This problem should be a source of concern because defective buildings are found to affect user comfort and satisfaction, especially in learning environment where students' achievement were found to correlate highly with quality of both physical and non-physical facilities (Akategeka et al., 2020). Therefore, it is against this backdrop that this study thrives to evaluate how institutional image and user satisfaction can be impacted by the level of the quality of facilities management service in the university.

In addition, there are several studies conducted regarding facilities in HEIs in Nigeria. However, the focus of these studies mostly concentrated on investigating users' satisfaction with the facilities provided (Ajayi et al., 2015; Oluwunmi et al., 2012, 2017), HEIs facilities performance (Abdullahi & Yusoff, 2015, 2019; Musa & Ahmad, 2012), and the level of provision of HEIs facilities (Mohammed et al., 2013; Oladokun & Ajayi, 2018). Despite the fact that these studies enriched the HEIs facilities literature with their respective findings, there is need to understand how facilities service quality would impact on user satisfaction and institutional image in a HEI setting, thus, amplifying the need for the current study. Therefore, the aim of this study is to evaluate the effect of facilities management services quality on users' satisfaction and institutional image in Gombe State University (GSU) with a view to unravelling the causal link between quality FM service provision, users' satisfaction and institutional image in HEIs' setting.

02.0 LITERATURE REVIEW

2.1 Facilities Management Service Quality

According to the International Standard Organisation (ISO), facilities management (FM) is an organisational function that integrates people, place and process within the built environment with the key goal of improving people's quality of life and the productivity of the core business of the organisation. By virtue of their formation and structure, universities are considered one of the organisations where good FM practices is expected to minimise maintenance cost, improve people, workflow and conserve energy (Alsayyari et al., 2019). In this regard, ensuring the provision of high quality FM service becomes necessary in order for HEIs to achieve the desired goals.

In the context of HEIs, Oyediji (2018) enumerated some of the core functions of the FM department to include, among others, maintenance of lecture rooms, maintenance and management of teaching materials such as projectors, electronic boards, white board, lecture room furniture, students hostel maintenance, maintenance of laboratories and workshops, maintenance of lecturers' offices, cleaning and janitorial services.

On the other hand, Lok and Baldry (2015) mentioned waste management, landscaping, information technology, cleaning, campus security, catering and maintenance of building facilities as FM support services in HEIs setting. FM functions such as vehicle fleet management, waste disposal, ICT service and catering were regarded as ancillary services that support a conducive learning environment (Oyediji, 2018).

The fact that the overall goal of students is to acquire knowledge and achieve academic excellence trigger the need for management in the HEIs to focus on ensuring conducive teaching and learning environment. Provision and management of learning facilities and other support services are fundamental to the smooth running of HEIs, especially universities. One way of gauging the performance of these facilities and services is through the evaluation of the users' satisfaction. In order to meets students expectation and maintain a competitive advantage, institutions are expected to provide and ensure high quality services in respect of teaching and learning support facilities (libraries, computer services and lab facilities); learning environment (lecture rooms' laboratories, recreational spaces, etc) and support facilities (health, students accommodation etc.) (Ideris et al., 2016).

The idea of service quality has been the topic of debate among service sector researchers. The user's assessment of an entity's overall excellence or superiority is characterized as service quality (Zeithaml, 1981). Service quality, according to Nitecki and Franklin (1999), is defined as closing the gap between consumers' expectations for excellent service and their views of service provided. Quality of service has been believed to have a direct influence on consumer satisfaction, the likelihood of repeat purchase behavior, and the company's long-term profit (Wilkins et al., 2007). Continuous contact with staff and analysis of service interactions are required to ensure the attainment of service quality in an organization or institution (Nitecki & Franklin, 1999).

According to Parasuraman et al. (1988), service quality is an organization's capacity to meet customer expectations. As posited by Lewis and Booms (1983), service quality is a comparison between expectations and performance. The SERVQUAL approach has widely been used to assess service quality by comparing customer expectations and perceptions. Parasuraman et al. (1988) further alluded to empirical data from five service sectors that suggest, perceived service quality may be described effectively by five dimensions: tangibility, reliability, responsiveness, assurance, and empathy.

In the context of HEIs, facilities management services such as catering, security service and cleaning and maintenance has been found to have direct effect on academic achievement of students (Kok et al., 2011) and students' choice of institution (Price et al., 2003). This suggests that provision of quality FM service may likely enhance facilities users' satisfaction and by extension influence the image of the institution thereby affecting enrolment.

Mohammad et al. (2012) assessed the facilities management service provided in Henry car postgraduate hostel of University of Lagos using the SERVQUAL model. The study found that the hostel users had negative perception across all five dimensions of service quality with respect to facilities management service provided in the hostel. In a more recent research, Hopland and Nyhus (2015) investigated the relationship between students' performance and school facilities. The result shows a statistically significant relationship between effective facility management service and students' achievement. This suggests that provision of quality FM service in the learning environment may likely influence students' performance as well as facilities users' satisfaction and institutional image.

2.2 User Satisfaction

Satisfaction may differ from one user category to the next. Kotler and Armstrong (2012) define satisfaction as a person's pleasure from comparing a product's perceived performance to their expectation. Satisfaction is a well-studied issue in both academic and non-academic contexts. The increasing competition among HEIs for student enrollment heightens the requirement for institutions to satisfy the needs of their admitted students. This stems from the fact that a university's performance and viability are heavily dependent on the number of students enrolled and the extent of student satisfaction with the overall services offered by the university, of which FM radio is a significant component (Brewer & Carnes, 2008; Bringula & Basa, 2011; Earthman, 2000; Nadiri et al., 2009). Numerous studies on user satisfaction with HEIs facilities were conducted, in which researchers investigated ways to improve service quality in order to increase user satisfaction.

For instance, Hanssen and Solvoll (2015) examined the importance of university facilities for student satisfaction at a Norwegian university. Their finding revealed that quality of facilities such as social area, auditoriums and libraries affect student satisfaction towards the university while computer access on campus had no significant effect on student satisfaction. Manzoor (2013) explored students' satisfaction in private and public university facilities in Pakistan and found that facility provided to the students regarding the sport facility and the auditorium facility have significant positive effect on the students' satisfaction while accommodation facility does not. Ideris et al. (2016), in a study that evaluated student satisfaction with facilities in Universiti Utara Malaysia, found a significant relationship between five service quality dimensions and students satisfaction. The study recommended for the institutions to identify the strength and weakness in the area of service quality and improve on facilities performance thereby enhancing students' performance.

Oluwunmi et al. (2017) investigated student satisfaction with major facilities in private university in Ogun State, Nigeria. The finding revealed that students are satisfied with library, ICT laboratory, classroom facilities but they were not satisfied with escape route and toilet facility. In a study that investigated student satisfaction with hostel facilities in Federal University of Technology, Akure-Nigeria, Ajayi et al. (2015) reported that the respondent were dissatisfied with the adequacy and functionality of some facilities such as laundry, bathroom and toilet facilities due to distance from room and level of cleanliness. The study called for urgent need for management of the institution to focus on the provision of adequate facilities in order to ensure conducive learning environment. Oluwunmi et al. (2012) investigated user satisfaction with residential facilities in Nigerian public university. The finding revealed that students were generally satisfied with electricity supply and furniture in all the three residential facilities in the university. However, they were not satisfied with internet connectivity, maintenance mechanism and fumigation service.

2.3 Institutional Image

Institutional image is a multifaceted phenomenon based on individual experiences and interactions with the service institution (Dowling, 1988). Institutional characteristics such as the institution's name, service provided by the institution, and, most importantly, interaction and relationship with users all contribute considerably to a university's institutional image. One of the main aspects that contribute to loyalty and patronage is institutional image (Andreassen & Lindestad, 1998; Dick & Basu, 1994). According to Grönroos (1984), the technical and functional qualities of the service primarily constitute the institutional image, which is what a user acquires from service experience and the manner in which the service is offered.

Previous empirical studies looked into the relationship between institutional image, service quality, and customer satisfaction (Caruana & Ramaseshan, 2015; Priporas et al., 2017). According to the findings of Zameer et al. (2015), a higher level of service quality provides a favorable institutional image in the eyes of users, which leads to user satisfaction with the facilities, which encourages people to engage with the institution. According to research, institutional image is a crucial determinant of user patronage (Ball et al., 2016; Ishaq, 2012). Similarly, institutional image was discovered to be an important determinant of user satisfaction (Kuo & Tang, 2013).

2.4 Conceptual Framework

Service quality is considered an important criteria in evaluating the performance of service industry. The SERVQUAL model pioneered by Parasuraman et al. (1988) was found to be widely used in evaluating performance of service or service providers in different service sectors. For instance, in the facilities management field, SERVQUAL model, have been wholly or partly used to study issue of service quality and/or performance in different organisations such as hospital (Amos et al., 2020, 2022), educational institutions (Aziz & Sapri, 2013; Ideris et al., 2016), commercial real estate (Karunasena et al., 2018) and hospitality (Al-Gasawneh et al., 2022; Günaydın, 2022) and host of others.

Although the fundamental theory of service quality suggests five dimensions of service quality, that is; reliability, responsiveness, assurance, empathy and tangibility, however, evidence shows that many studies introduced additional dimensions or entirely adopted different dimensions to investigate service quality in different service sectors (Amos et al., 2020; Mattah et al., 2018). This is unconnected with the fact that the nature of service varies across different industries, hence the need for additional or entirely new dimensions to capture the peculiarities of service being provided (Yusoff et al., 2008).

Consequently, the service quality dimensions used in this study were operationalised from the numerous FM functions identified in the literature. For instance, the general cleaning and maintenance (GCM) dimension constitutes of indicators such as students hostel maintenance, lecture theatres maintenance, laboratories/studios maintenance, and cleaning of common areas among others as found in Oyedeji (2018), Hinks and McNay (1999) and Lavy and Shohet (2010).

The FM support services (FSS) was operationalised to consist of those services that are directly linked with personnel of the units responsible for execution of FM function. Indicators that measured this dimension include functions such as professionalism of security services, effectiveness of security alert/surveillance system, promptness in addressing power failure, promptness of security unit in responding to emergency and other related services which are considered to deal with the soft FM aspect (Lok & Baldry, 2015; Mattah et al., 2018).

Finally, in the context of this study, the learning environment support service was operationalised in accordance with Oyedeji (2018) comprising those ancillary/allied services that fall under those FM activities whose supply improves users' comfort and productivity in the workplace. Health care services, internet services, transportation services, recreational services, library services, waste management services, and other comparable services deemed required to enhance learning in HEI settings were used to measure the dimension. The rationale for using this conceptualisation is based on the argument advanced by Bröchner (2017), who stated that researchers have the option of using the existing SERVQUAL scale in its original or modified form; relying on one or more scale items of the existing instrument; or developing a new instrument by conducting a survey and then using factor analysis to reduce the number of variables. Figure 1 displays the research's conceptual framework, which indicates the links between the constructs.

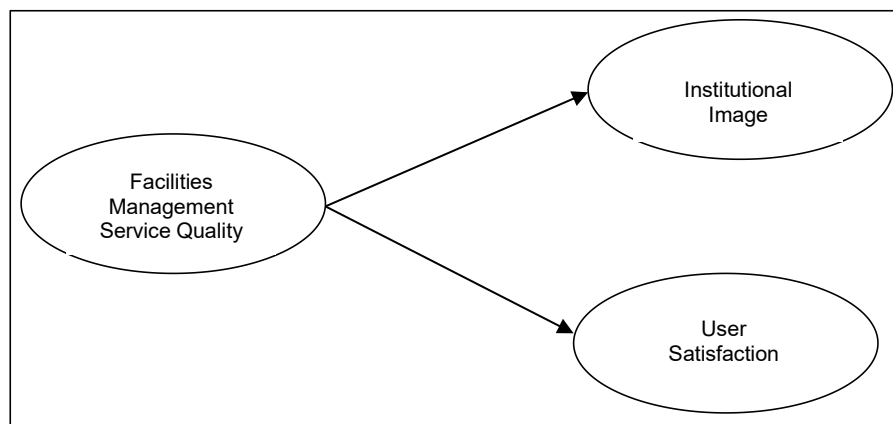


Figure 1 Conceptual framework

03.0 METHODOLOGY

3.1 Research Design

The survey method was used in this investigation. Data were gathered using a closed-ended questionnaire designed to elicit information on users' perceptions of various areas of FM services at Gombe State University. The questionnaire includes questions about topics of common interest to both types of users, the majority of which concern general cleaning and maintenance, FM support services, and learning support services.

3.2 Instrumentation

The questionnaire had twenty-seven (27) items designed to examine consumers' perceptions of the quality of FM services. The twenty-seven items were created by adapting the key performance indicators defined by Hinks and McNay (1999) and Lavy and Shohet (2010). Similarly, eighteen (18) questions were offered to gauge respondents' perceptions of the institutional image. A 5-point Likert scale was used to assess service quality, satisfaction, and institutional image. For the three categories, FM service quality, user satisfaction, and institutional image, the scale goes from 1 (poor/very dissatisfied/strongly disagree) to 5 (excellent/very satisfied/strongly agree).

3.3 Sampling and Data Analysis

At the time of the research, there were 1173 staff members and 14,318 students at GSU, according to records. This means that the research population is 15,491 participants. Six hundred and sixty-six (666) questionnaires were issued to users, with 458 returned, reflecting a response rate of about 68.8 percent. The sample size was 291 employees and 375 pupils. The number of returned questionnaires employed in the study was judged adequate based on the Bartlett sample size determination table, which states that when categorical data is included, a minimum sample size of 370 is necessary to accomplish generalization (Bartlett et al., 2001).

04.0 RESULTS

4.1 Demographic Characteristics

Table 1 shows the demographic characteristics of the study respondents. About 7% were less than 20 years. Slightly more than half were aged between 21 to 30 years while exactly 40 percent were 31 years and above. The gender distribution of the respondents shows that approximately 52% were male while about 48% were female. A little more than half of the respondents were students (55.7%) while 29% indicated that they were academic staff while 15% indicated that they were non-academic staff.

Table 1 Demographic characteristics of respondents

Variables	Options	Frequency	Percentage
Age	Less than 20 years	30	6.6%
	21 - 30 years	242	52.8%
	31 - 40 years	99	21%
	41 - 50 years and above	87	19%
Gender	Male	239	52.2%
	Female	219	47.8%
Status	Students	255	55.7%
	Academic staff	133	29%
	Non academic staff	70	15.3%

4.2 Factor Analysis

Prior to conducting the PLS analysis, factor analysis was conducted on 27 indicators of FM SQ. The reason for the factor analysis is to reduce the numerous items into a few components or dimensions which can represent the data without losing substantial information. The factor analysis was conducted using the Principal Axis Factoring (PAF) with varimax rotation option. In order to obtain good factor loadings, the factor loading was suppressed to 0.50 to ensure that only indicators with factor loading of ≥ 0.50 were retained, as recommended by Leech et al. (2005).

Table 2 shows result of the factor analysis. Three components were extracted and they cumulatively explained about 87% variance in the data, thus suggesting that no substantial information was lost. The Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity reported 0.949 and 0.000 which indicate that the sample is adequate and that at least one variable can be extracted from the dataset respectively. The extracted components were labelled Facilities Support Service (FSS), General Cleaning and Maintenance (GCM) and Learning Environment Support Service (LSS).

Table 2 Results of factor analysis

Code	Indicators	Factor		
		General Cleaning and Maintenance	FM Support Services	Learning Environment Support Services
FMS11	Furniture maintenance	0.804		
FMS19	Maintenance of sewage system	0.798		
FMS12	Maintenance of classes/ studios/ laboratories	0.741		
FMS6	Maintenance of Sport facilities	0.775		
FMS3	Students' hostel maintenance	0.748		
FMS4	Lecture theatres maintenance	0.727		
FMS14	Maintenance of parking space	0.665		
FMS5	Space planning and management	0.662		
FMS17	Maintenance of lawn/ flowers	0.642		
FMS24	Maintenance of building service (plumbing, lighting etc)	0.636		
FMS15	Cleaning of common areas (toilets, staircase, lobby etc)	0.811		
FMS21	Professionalism of security services		0.735	
FMS13	Effectiveness of security alert, surveillance system (CCTV, Rapid response office etc)		0.680	
FMS25	Promptness in addressing power problem		0.677	
FMS26	Promptness of facility management unit in attending to complaint/enquires		0.664	
FMS16	Promptness of security unit in responding to emergency		0.636	
FMS9	Health care services			0.795
FMS23	E-service			0.839
FMS2	Internet service			0.802
FMS20	Transportation services			0.799
FMS10	Cafeteria & canteen services			0.753
FMS1	Recreational facilities			0.729
FMS27	Virtual learning facilities			0.742
FMS18	Traffic management on campus			0.708
FMS7	Library services (journal subscription, repository, e-library etc)			0.698
FMS8	Waste management services			0.659
FMS22	Firefighting service			0.731
Percent variance explained		35.648	26.901	24.210
Total variance explained				86.760
Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO)				.949
Bartlett's Test of Sphericity			Approx. Chi-Square	30803.995
			Df	435
			Sig.	.000

4.3 Effect of Facilities Management Service Quality on User Satisfaction and Institutional Image

Figure 2 depicts the study framework's measurement model. FM SQ is measured in three aspects, as illustrated in the following figure: Facilities Support Service (FSS), General Cleaning and Maintenance (GCM), and Learning Support Service (LSS). User satisfaction was measured by User Satisfaction with FSS (US FSS), User Satisfaction with GCM (US GCM), and User Satisfaction with LSS (US LSS). Institutional image was measured by two indicators: Administration Image and Programme Image.

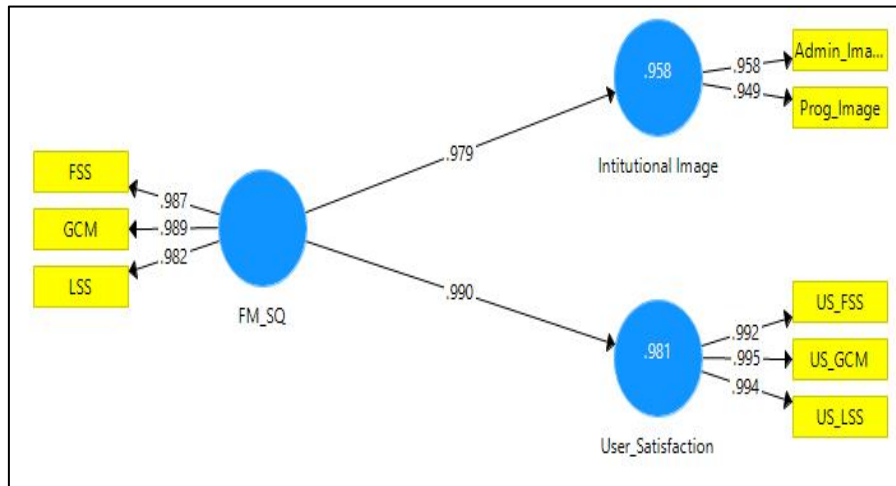


Figure 2 Measurement model

4.3.1 Convergent Validity and Reliability of Constructs

The convergent validity and reliability of the constructs in the research framework was assessed using outer loadings, construct reliability (CR) and Average Variance Extracted (AVE). The recommended benchmarks for the outer loadings, CR and AVE are 0.7, 0.7 and 0.5 respectively (Benitez et al., 2020; Hair et al., 2014).

Table 3 shows the outer loadings of the dimensions on their respective constructs. As indicated by the result all the outer loadings reported higher values that are statistically significant at 5% level of significance. The outer loadings range from 0.949 to 0.995. Similarly, both the AVEs and CRs reported values that satisfied the recommended minimum benchmarks. This suggests that convergent validity is achieved.

Table 3 Convergent validity and reliability

Constructs	Indicators	Loadings	t-value	p-value	CR	AVE
Institutional Image	Programme Image	0.949	276.092	0.000	0.953	0.910
	Administrative Image	0.958	435.065	0.000		
Facilities Management Service Quality	FSS	0.987	928.102	0.000	0.991	0.972
	GCM	0.989	1482.903	0.000		
	LSS	0.982	836.218	0.000		
User Satisfaction	US_FSS	0.992	1489.526	0.000	0.996	0.987
	US_GCM	0.995	2494.015	0.000		
	US_LSS	0.994	2121.323	0.000		

4.3.2 Discriminant Validity

Upon establishing the convergent validity of the constructs, the next step in the PLS-SEM analysis involved the test to establish discriminant validity. Discriminant validity is an indication of the degree of uniqueness of individual constructs or variables in the research model. Benitez et al. (2020) recommended the use of Hetero-Trait Mono-Trait (HTMT) as the best method of measuring discriminant validity in a reflective models. The conservative threshold for establishing discriminant validity is $r < HTMT0.85$ while a more lenient threshold was reported as $r < HTMT0.90$ (Benitez et al., 2020). Table 4 shows the discriminant validity of the constructs. As shown in the result, the three constructs are uniquely distinct as the reported HTMT values are within the recommended thresholds.

Table 4 Discriminant validity based on HTMT criterion

	FM_SQ	Institutional Image	User Satisfaction
FM_SQ			
Institutional Image	.836		
User Satisfaction	.801	.839	

4.4 Structural Model Evaluation

The second stage of the PLS-SEM analysis is the evaluation of the structural model of the research framework. The process involves the evaluation of path coefficients and their significance, evaluation of R^2 , and f^2 . Figure 3 represents the research framework showing the significance of the path coefficients. Figure 3 shows the research model with t-values of the respective paths coefficients and indicator loadings.

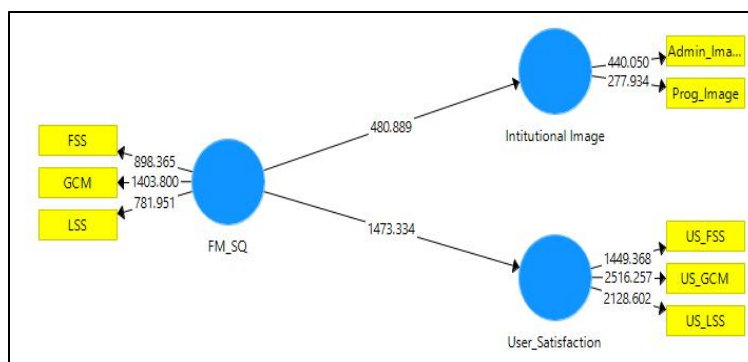


Figure 3 Structural model

As demonstrated in Table 5, both paths report very high and significant effect considering the beta values. The beta value between facility management service quality (FMSQ) and institutional image is $\beta = 0.979$, $t = 473.097$, $p = 0.000$ while the beta value between facility management service quality and user satisfaction is $\beta = 0.990$, $t = 1483.315$, $p = 0.000$.

With regard to the R^2 , the results show that FMSQ has large effect on both institutional image and user satisfaction. The R^2 is an overall measure of model performance in regression analysis. The R^2 reported .958 and .981 for institutional image and user satisfaction respectively. This implies that FMSQ explain about 96% and 98% variation on institutional image and user satisfaction respectively.

To evaluate the structural model, the effect size (f^2) value is also reported. The effect size is evaluated based on the Cohen's (1988) criterion where 0.020 to 0.150 indicate weak effect, 0.150 to 0.350 indicate medium effect and value greater than 0.350 indicate large effect. Table 5 shows that FMSQ has large effect on institutional image and user satisfaction.

Table 5 Structural model evaluation

Path	Statistics
FM_SQ → Institutional Image	0.979** (473.097)
FM_SQ → User Satisfaction	0.990*** (1483.315)
Dependent variables	R²
Institutional Image	.958
User Satisfaction	.981
Effect Size	f²
FM_SQ → Institutional Image	22.666
FM_SQ → User Satisfaction	50.425

*** indicates significant paths; t-values are shown in parentheses

05.0 DISCUSSION

The overall aim of the study is to evaluate the effect of facilities management service quality on user satisfaction and institutional image. Analysis of the result indicates that FMSQ has a very strong effect on user satisfaction. Specifically, the path coefficient reported a very high beta value of $\beta = 0.990$, $t = 1483.315$, $p < .05$. This finding aligns with the finding of previous studies (Hanssen & Solvoll, 2015; Ideris et al., 2016; Manzoor, 2013) where service quality was found to have significant effect on students' satisfaction with FM service in university environment. This result suggests that provision of high quality facilities management service affects facilities users' level of satisfaction with the overall service provided. In the context of this research, ensuring the provision of high quality Facilities Support Service (FSS), General Cleaning and Maintenance (GCM) and qualitative Learning Environment Support Service (LSS) is expected to improve the university community's satisfaction level.

Furthermore, the result further indicates that facilities management service quality has statistically significant effect on institutional image ($\beta = 0.979$, $t = 473.097$, $p < 0.05$). This is consistent with the findings of previous works such as Priporas et al. (2017), Ball et al. (2016), and Caruana and Ramaseshan (2015). Because service users' views, perceptions, and attitudes regarding organizations are impacted by their service contacts with the organization, better levels of quality in FM service can contribute to a good institutional image, which can lead to more patronage. This is especially true when university education is viewed as a marketable service, with success or performance judged by the level of service provided (Brown & Mazzarol, 2009).

The implication of this research is that while previous studies that investigated the issue of service quality in facilities management service, at least in the context of Nigerian HEIs, failed to explicitly measure the extent to which level of quality of FM service can affect institutional image, this study attempted to measure the effect of users' perceived level of FM service quality on institutional image. Understanding that the quality of FM service received by facilities users has a significant impact on the university's image, university management is expected to enact regulations to guarantee that the services provided in the institution satisfy the expectations of the facilities users. Similarly, the study proved that service quality may be operationalised using dimensions other than the SERVQUAL scale's standard parameters. This reinforces the idea that the SERVQUAL scale may be adapted or totally redesigned to meet the unique characteristics of the service sector under consideration.

06.0 CONCLUSION

The study investigated the effect of facilities management service quality on user satisfaction and institutional image. It was found that quality of facilities management services significantly influences institutional image and user satisfaction. The findings suggest that providing high quality facilities management service will lead the students and other facilities users at the university to have positive belief, perception and attitude towards the university as well as increase the level of user satisfaction. The growing competition among universities towards attracting prospective students suggests that universities need to explore new strategies that will help them attract more students. Such strategies should go beyond focusing on only improving the pedagogical aspect but should also put into consideration improvement in the learning environment in general among which the learning facilities are components. Thus, ensuring the provision of high quality facilities management service is expected to help universities achieve their goal of attracting increased patronage. This is worth considering especially as the higher education sector is gradually transforming into a marketplace where university education is seen

as a marketable service whose success is gauged on the student-customers' acceptance of the level of quality of the service the university offer. It is therefore recommended that decision makers in HEIs should pay more attention to the management and upgrading of both the core learning facilities and other support services in order to improve and sustain a high level of user satisfaction and a positive image in the eyes of the public.

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