

Effect of Facilities Performance and Quality on User's Satisfaction with Facilities Provided in Industrial Training Fund Building Maitama, Abuja

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Abstract. The study investigated user satisfaction and performance of facilities management service delivery in private high-rise buildings using the industrial training fund (ITF) house Maitama, Abuja, as a study area. Survey research was carried out through the use of a questionnaire instrument. Three hundred fifty questionnaires were administered to users, of which 304 were retrieved. The simple random sampling technique was adopted for the study, while data obtained from the field were analysed using statistical packages for social. The study found that only pest control services, security facilities (e.g. CCTV), parking facilities, and fire extinguishers were rated well by the respondents in the study area. Results also indicate that users were delighted with leisure facilities (e.g. seating bench), refuse disposal facilities, intercom system and TV reception, and recreational facilities and were satisfied too with fire alarms. Users are happy with the pest control systems in the ITF building, security facilities, parking, fire extinguishers, electricity supply systems, water supply systems and air conditioning.

Further findings show that facilities performance explains 78.9% of the variance in user satisfaction which is highly significant (Sig. = .000) as indicated by the F-value of 394.4. Furthermore, standardised Beta coefficients indicate that quality has the most significant beta coefficient of 0.826, thus making the most substantial contribution in explaining user satisfaction which means facilities' performance and quality have a positive and significant effect on user satisfaction. The study concluded that ITF building Maitama, Abuja facilities are performing satisfactorily. This suggests that the building owners and operators must put substantial provisions in place to perform satisfactorily. Finally, the study recommended that owners and management of high-rise buildings must recognise the need to improve the effectiveness of Facilities service to make the buildings more functional and comfortable for users.

Keywords: Facilities Performance; Quality; Facilities Provided; User's Satisfaction; Abuja.

INTRODUCTION

Facilities management is a relatively new area originating in the United States of America and spreading to the United Kingdom in the late eighties. Most of the current literature in Nigeria is, therefore, preliminary and educational, addressing issues such as definitions and scope [14], facilities management tools [9], and which of the professionals within the environmental setting are best suited to serve as a facilities manager or to handle what within the facilities management field [14]. Facilities management is

a relatively new profession and practice in many developed nations, but it is still in its early stages in Africa and other developing countries. It is a multidisciplinary profession that ensures the functionality of the built environment by integrating people, places, procedures, and technology [13]. High-rise buildings have numerous owners/occupiers and a specialist firm (company) 's participation in property management and the associated facilities and services. Individual ownership of a unit, shared ownership of common property, and member states in a body factor

that contributed to planning are the main characteristics of this type of building [6].

The performance of managed services is critical to the harmony of a tall building [6]. The gratification and criticism rate from customers or users residing in the building structures can be used to indicate the facilities' quality directly. Today's tall buildings, particularly the Abuja Industrial Training Fund (ITF) building, have a higher complaint rate while satisfaction remains low. Since it is apparent that FM service providers from abroad possess skilled management abilities, FM service providers in Nigeria face a considerable challenge.

Many events and facts in Nigeria support the construction of tall buildings. The public sector's involvement comes first, which was significant, at least until the late 1990s. Government employees were given access to office space in high-rise buildings [15]. Nevertheless, these structures are plagued by poor planning and beauracracy, which allow the facilities to deteriorate and ultimately lead to their progressive breakdown [3]. Most earlier research on tall tower facilities management services was conducted in South Africa, the United Kingdom, and the United States [1]. There need to be more studies on user satisfaction with the standard of facilities management services in tall buildings in Nigeria. Clarifying what facilities management entails and setting it apart from traditional property and maintenance management have received the most attention in Nigerian studies. The management of facilities in high-rise buildings in Nigeria, particularly the ITF building in Abuja, needed more attention. In light of those above, this study examines how users rate, are satisfied with and perform concerning the delivery of facilities management services in the ITF building in Abuja.

The ITF House Maitama, Abuja, is being used as the study site for investigating user satisfaction and performance of facilities management service delivery in private high-rise buildings. The goals are to:

1. Determine the calibre of services and facilities offered in the ITF building in Maitama, Abuja.
2. To determine how satisfied ITF building users are with the level of amenities in Maitama, Abuja.
3. To look into the performance of the amenities offered in the ITF building in Maitama, Abuja.

4. To determine how facility performance and quality affect users' satisfaction with services offered by facilities in ITF building Maitama, Abuja

LITERATURE REVIEW

Various ways have been used to describe facilities management as an emerging profession. There are still efforts being made to create a dividing line for the tasks or duties carried out by the facilities management profession. We'll make mention a few definitions that are frequently used in literature. According to [2], facilities management is "an integrative model to able to operate, preserving, trying to improve, and adapting a group's construction and infrastructure to generate a setting that strongly supports this same primary objective of that institution".

According to the American Library of Congress, facility management creates, coordinates, and oversees the specialised non-core services required for an organisation to accomplish its primary goals. Facilities management (FM), in the opinion of [5], "has been described as a hybrid management discipline that combines people, property, and process management expertise to provide essential services in support of the organisation". Facilities management is the "integrated workplace management to improve organisational performance" [10]. Facilities management is defined more specifically by [10] as the management of facilities and services necessary to accommodate and support a client organisation's core business activities while continuously enhancing the client.

These definitions imply that facilities management supports a firm's core business and focuses on a good work environment and having a sense [4]. Facility management is critical to assist an organisation's long-term and short-term core business. According to the International Facility Management Association (IFMA), facilities management is "a profession that encompasses multiple disciplines to ensure the functionality of the built environment by integrating people, place, process, and technology" [17]. It incorporates the business principles of administration, architectural style, behaviour, and engineering science. In other words, it is the practice of coordinating the physical workplace with the people and work of an organisation [16]. But according to [8], facility maintenance is frequently viewed as an inconvenience or a "necessary evil."

The SERVPERF (service performance) and SERVQUAL (service quality) models are used in this study to try and gauge how well facility managers at the Industrial Training Fund House in Maitama, Abuja, satisfy their clients with the services they provide. Since facilities are typically intangible by nature, it is possible to gauge the customer's quality perceptions by interacting with the staff members who are providing the service [7]. According to their advice, the relationship between customer and supplier is significant when evaluating the quality of service. Through this interaction, the service providers can more easily comprehend the customers' needs and determine how much they desire. Therefore, the purpose of this study is to ascertain the relationship between facility managers and their client(s), i.e., the users of Industrial Training Fund House Maitama, Abuja, as well as the standard of services rendered by the facility managers in charge of the ITF building and precisely how they affect the client's levels of satisfaction in overall.

Several attitude-based or disconfirmation models have been proposed as service quality measures. Service quality measurement is crucial because it enables evaluations before and after changes, identifies quality-related problems, and helps establish precise standards for the delivery of services. Thus, SERVPERF (service performance) and SERVQUAL (service quality) models are used to assess the level of service provided by facilities management organisations in charge of the Industrial Training Fund House Maitama, Abuja.

In this study, it is assumed that facility management service quality and facility management service performance as the independent variables, while user satisfaction is the dependent variable, as illustrated in Figure 1.

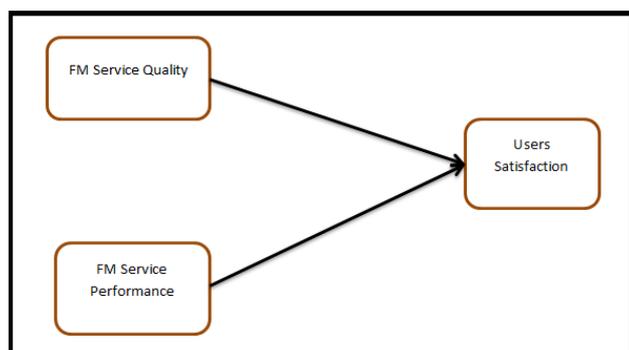


Figure 1 – Conceptual Framework of the Study

METHODOLOGY

Quantitative research methodology has been used. The respondents were given a questionnaire, which was created. The table shows that a sample size of approximately 162 is the minimum for a population size of 351. The sample is chosen using a simple random sampling technique to ensure that every component or person in the population has an equal chance of being chosen. The sampling method was selected based on the makeup of the study's population. After a significant amount of data was collected, descriptive, mean ranking, and parametric measurements (bivariate correlation and multiple regression) were used to analyse the information gathered in the field.

RESULTS AND DISCUSSIONS

The study's respondent profile is shown in Table 1.

Table1 – Demographic Data of the Respondents

Variables	Option	Frequency	%
Age	Less than 30years	62	21.2
	Between 31 to 40	167	57.2
	Between 41 years and above	63	21.6
Gender	Male	197	67.5
	Female	95	32.5
Marital status	Married	136	46.6
	Single	97	33.2
	Divorced	32	10.1
	Widow	27	9.2
Qualification	O' level	40	13.7
	NCE	29	9.9
	Diploma	37	12.7
	Degree	125	42.8
	HND	42	14.4
	Master's Degree	17	5.8
	PhD	2	7
Working Experience	Less than five years	44	15.1
	6 to 10 years	102	34.9
	11 to 20 years	101	34.6
	21 years and above	45	15.4

The primary users of the ITF building's facilities responded with a reasonably diverse range of opinions. The results also offer a variety of educational upbringings among the usable responses, with nearly 42.8% having a bachelor's degree,

5.8% having a master's, 13.7% having an O' level, 9.9% having an NCE, 12.7% having a diploma, and 14.4% having an HND. According to the results, 21.2% of respondents are under 30 years old, 57.2% are between the ages of 31 and 41, and 21.6% are over 41. In addition, 67.5% of the survey participants, or men, and only 35% of the respondents, or women, are female. According to an additional analysis of the respondents' marital

status, 46.6% are married, 33.2% are single, 10.1% are divorced, and 9.2% are widows. Furthermore, a sizable portion of the participants had more than 10 to 20 years of employment history.

Table 2 analysis reveals the general opinion of the staff regarding the calibre of the facilities in the research area.

Table 2 – Quality of facilities provided in the ITF building Maitama, Abuja

ITF Building Facilities	Excellent	V. Good	Good	Fair	Poor	Remark
Electricity supply system	1(0.3)	6 (2.1)	16 (5.5)	144(49.3)	125(42.8)	Fair
Water supply system	1(0.3)	4(1.4)	43(14.7)	147 (50.3)	97 (33.2)	Fair
Elevator / escalator system	2(0.7)	4(1.4)	57(19.5)	83(28.4)	146(50.0)	Poor
Intercom and TV reception	1(0.3)	155(53.1)	64(21.9)	8(2.7)	64(21.9)	Very Good
Air conditioning	2(0.7)	11(3.8)	75(25.7)	123(42.1)	81(27.7)	Fair
Pest control systems	1(0.3)	11(3.8)	134(45.9)	92(31.5)	48 (16.4)	Good
Recreational facilities	146(50.0)	7(2.4)	41(14.0)	68(23.3)	30(10.3)	Very good
Leisure facilities (seating bench)	116(39.7)	14(4.8)	84(28.8)	6(2.1)	72(24.7)	Excellent
Security facilities (e.g. CCTV)	7(2.4)	19(6.5)	118(40.4)	85(29.1)	63(21.6)	Good
Landscaping	1(0.3)	21(7.2)	85(29.1)	54(18.5)	125(42.8)	Poor
Parking facilities	1(0.3)	11(3.8)	134(45.9)	92(31.5)	48 (16.4)	Good
Generator sets	2(0.7)	11(3.8)	75(25.7)	123(42.1)	81(27.7)	Fair
Sanitary facilities (toilets)	2(0.7)	4(1.4)	57(19.5)	83(28.4)	146(50.0)	Poor
Fire extinguishers	19(6.5)	7(2.4)	85(29.1)	63(21.6)	63(21.6)	Good
Fire alarms	1(0.3)	147 (50.3)	43(14.7)	4(1.4)	97 (33.2)	Very Good
Refuse disposal facilities	155(53.1)	1(0.3)	64(21.9)	8(2.7)	64(21.9)	Excellent

Each of the systems for supplying electricity and water is in reasonably good condition, with the highest frequency of 144 representing 49.3%, the highest frequency of 147 representing 50.03%, the broad range of 123 representing 42.1%, the highest frequency of 116 representing 39.7%, and the highest frequency of 123 chosen to represent 42.1 for generator sets. On the contrary hand, with a percentage and frequency of 144 (50.0%), 125 (22.8%), and 146 (50.0), respectively, the popular view of staff regarding elevator/escalator systems, landscaping, and sanitary facilities could be better. This indicates that the study area's escalator and elevator systems, landscaping, and restrooms must be in better condition. Only pest control services (frequency: 134, representing 45.9%), security facilities (frequency: 118, representing 40.4%), parking (frequency: 134, representing 45.9%), and fire extinguishers (frequency: 85, representing 29.1%) received positive ratings from the study's respondents. Similarly, the study area's intercom services, TV reception, recreational facilities, and fire alarm systems all received Very Good ratings,

with a frequency of 155 representing 53.1%, 50%, and 50.3, respectively. Unexpectedly, no recreation areas (like benches for seating) or trash cans existed.

Descriptive statistics based on mean ranking were used to examine users' satisfaction with the standard of facilities provided at the ITF building in Maitama, Abuja. The results showed each facility's orders, mean, and standard deviation.

Results on the degree of user satisfaction with all amenities offered in the ITF building Maitama, Abuja, are shown in Table 3.

Table 3 – Level of user satisfaction with the quality of facilities provided in the ITF building Maitama, Abuja

Facilities	Mean	Std. Deviation	Rank	Remark
Leisure facilities (e.g.seating bench)	4.44	.650	1	Highly Satisfied
Refuse disposal facilities	4.30	.665	2	Highly Satisfied
Intercom system and TV	4.05	.798	3	Highly Satisfied

Facilities	Mean	Std. Deviation	Rank	Remark
reception				
Recreational facilities	4.02	.831	4	Highly Satisfied
Fire alarms	3.94	.859	5	Satisfied
Pest control systems	3.93	.827	6	Moderately Satisfied
Security facilities (e.g. CCTV)	3.92	.918	7	Moderately Satisfied
Parking	3.89	.900	8	Moderately Satisfied
Fire extinguishers	3.88	.912	9	Moderately Satisfied
Electricity supply system	3.87	.897	10	Moderately Satisfied
Water supply system	3.82	.918	11	Moderately Satisfied
Air conditioning	3.77	.900	12	Moderately Satisfied
Generator sets	3.52	.912	13	Dissatisfied
Elevator / escalator system	3.41	.897	14	Highly dissatisfied
Landscaping	3.39	.918	15	Highly dissatisfied
Sanitary facilities (toilets)	3.23	.900	16	Highly dissatisfied

Notes: 0.00–1.49 = highly dissatisfied; 1.50–2.49 = Dissatisfied; 2.50–3.49 = Undecided; 3.5–4.49 = Satisfied; 4.50–5.00 = Highly Satisfied

It demonstrates that users were delighted with the first-, second-, third-, and fourth-ranked leisure facilities, which included seating areas, trash cans, intercom systems, and TV reception. The users rated the fire alarms fifth and said they were satisfied. The ITF building's pest control systems, security features (like CCTV), parking, fire extinguishers, electricity supply systems, water supply systems, and air conditioning, which were ranked sixth, seventh, eighth, ninth, and tenth and eleventh, respectively, were all found to be of modest user satisfaction, according to additional research. Surprisingly, only the generator sets, ranked 13th, received poor user ratings. Additionally, users have expressed a resounding lack of satisfaction with the fourteenth-, fifteenth-, and sixteenth-ranked sanitary facilities, landscaping amenities, elevator/escalator systems and toilets, respectively.

Mean and standard deviation was used to examine the performance level of the amenities offered in the ITF building in Maitama, Abuja.

Table 4 shows data on the level of performance of facilities provided in the ITF building in Maitama, Abuja.

Table 4 – Level of performance of facilities provided in the ITF building Maitama, Abuja

Facilities Provided	Mean	Std. deviation	Rank
Electricity supply system	4.071	0.886	1
Air conditioning	4.934	1.051	2
Intercom and TV reception	3.901	1.003	3
Fire extinguishers	3.852	1.139	4
Fire alarms	3.832	0.961	5
Pest control systems	3.802	1.191	6
Recreational facilities	3.767	1.099	7
Sanitary facilities (toilets)	3.747	1.108	8
Water supply system	3.628	1.251	9
Security facilities (e.g. CCTV)	3.541	1.306	10
Landscaping	3.520	1.257	11
Leisure facilities (seating bench)	3.470	1.436	12
Generator sets	3.458	1.243	13
Refuse disposal facilities	3.262	1.437	14
Parking facilities	3.163	1.515	15
Elevator / escalator system	2.983	1.730	16

Only 2 of the 16 facilities in the ITF building received ratings above 4 (mean > 4), which is the mark for satisfactory performance, according to results in Table 8. These include air conditioning and electricity supply systems. All other factors fall into the category of being acceptable. Other top-performing amenities include intercom systems, TV reception, fire extinguishers, fire alarms, pest control systems, and recreational facilities. Additionally, parking lots, elevator/escalator systems, and waste disposal facilities are the lowest-performing facilities. This indicates that while the facilities in the ITF building will perform satisfactorily in terms of a comfortable working environment, which frequently borders on user comfort, they need to perform satisfactorily.

Multiple regression analysis was used to assess the impact of facility performance and quality on users' satisfaction with amenities offered in the ITF building in Maitama, Abuja. Using the tolerance value, the data were used to determine whether multi-collinearity exists. However, a close examination suggests that performance has a range of 0 and facilities performance has a tolerance value of (0.961). However, the value ex-

ceeds the strict acceptable tolerance value of 0.2 or the 0.1 minimum threshold.

Table 5 shows the results on the effect of facilities performance and quality on user satisfaction in the ITF building in Maitama, Abuja.

Table 5 – Regression Results

Model	Unstandardised Coefficients		Standardised Coefficients Beta	T	Sig.	Collinearity	
	B	Std. Error				Tolerance	VIF
1 (Constant)	.016	.085		.192	.848		
P	.813	.034	.826	24.241	.000	0.861	1.161
Q	.167	.040	.141	4.139	.000	0.861	1.161
Model Summary							
R	0.888						
R ²	0.789						
Adj. R ²	0.787						
F-value	394.4						
P-value	0.000						

Notes: P – Facilities Performance; Q – Quality of facilities.

The two independent variables in the model in Table 4 account for 37.8% of the variations in the dependent variable. As a result, the performance of the facilities accounts for 78.9% of the variance in users' satisfaction, which is highly significant (Sig. =.000), as shown by the F-value of 394.4. According to standardised beta coefficients, quality has the highest beta coefficient, or 0.826, and thus contributes most to understanding user satisfaction. Facilities performance (.141) ranks second regarding the variance contributed when the variance explained by all other model variables is considered. The beta sig level indicates that the effectiveness and quality of the facility have a positive and significant impact on the users' satisfaction. On the other hand, the ITF building in Maitama, Abuja's facility performance and quality are indicators of users' satisfaction with those facilities.

CONCLUSIONS

This study rates the 16 facilities offered inside the ITF building in Maitama, Abuja. These include the following: the electricity supply system, the water supply system, the elevator/escalator system, the intercom system and TV reception, the air conditioning system, the pest control system, the recreation and leisure facilities (such as benches), the security facilities (such as CCTV), the landscaping, the parking, the generator sets,

the sanitary facilities (such as restrooms), the fire extinguishers, the generator sets, the fire alarms, and the refuse disposal. A statistically significant connection between facility performance and quality, and user satisfaction was found in the study. According to the study's findings, the critical effect relationship is causal. As a result, it was determined that the performance of the facilities identified could be used to predict how well they would perform. The study also found that the facilities in the ITF building in Maitama, Abuja, are operating satisfactorily. This suggests that the building's owners and operators need to put strong safeguards in place to enable it to work at a satisfactory level. This is because productive users use facilities that perform well.

The study recommended that facility managers should routinely start by evaluating the effectiveness of their services as well as the functionality of the facilities in the buildings they manage. Additionally, it is advised that owners of high-rise buildings acknowledge the necessity of enhancing the effectiveness of facilities to make the buildings more user-friendly and practical. Every high-rise building should install a fire extinguisher, fire sprinkler system, smoke alarm, and other appropriate fire-fighting gear. To keep it functioning effectively and combat-ready at all times, this equipment must be kept close by and frequently serviced.

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