Facility Management of Nigerian Universities: Case of University of Lagos, Lagos and the Bells University of Technology, Ota, Nigeria

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ABSTRACT

Universities which are citadel of research and learning have many facilities that need to be well maintained in order to achieve the designed aim and sustain value of the institution. This necessitates the need for this study to examine facility management practice and the level of satisfaction of users of facility management in the study areas. The study populations are the students and staff of the institutions who are the users of the facilities. The sampling technique is systematic random sampling technique where respondents were selected from all the academic faculties, student's hostels, and staff quarters which makes all categories of facilities users to be captured. The analysis was done using tables, 5-point Likert scale. The facility management services were categorized into hard and soft services. The modes of execution of the two were studied. It was gathered that some of the hard and soft services were outsourced while some are done in-house. The levels of satisfaction of the users on the hard and soft services were measured. It was gathered that soft services like move management have least ranking in the two universities and hard services like decoration and refurbishment have least ranking in the two universities. Recommendations were made on how the two universities can improve facility management services.

1. Introduction

The deplorable state of facilities in Nigerian universities is alarming. This assertion was corroborated by Babatope (2010) who identified poor facility management practice as one of the bane of facility inadequacies in Nigerian Universities. The implication of the facility inadequacies has been linked to poor students and staff productivity (Ajayi and Ayodele; 2001). Isa and Yusoff (2015) reiterated the need for provision and management of facilities in Nigerian tertiary institutions in order to produce graduates that will be able to compete worldwide. The scholars employed secondary data of facility provision and management in Nigerian tertiary institutions in the study. It was gathered from the study that the performance of physical, technical and support facilities in the tertiary institutions sampled are below average. The study further recommended facility management as a holistic solution to facility inadequacies.

Facility management is a holistic concept that covers different aspects of human endeavor. It was defined by different scholars in order to establish its applicability to functionality of different human investments. Becker (1999, Cited in Cowan, 2001) defined facility management as "being responsible for all efforts relating to planning, designing, and managing building and their system, equipment and furniture to enhance the organization's ability to compete in a rapidly changing world". The definition focused on building with an attempt to achieve a broad definition. FMA Australia (2012) defines facility management as guiding and managing the operations of buildings, precinct and community infrastructure on behalf of property owners. The definition also focused on building.

However, the applicability of facility management is beyond buildings but cut across a broad human endeavor. This assertion was corroborated by the definition of Engineering News-Record of April 4th, 1985 (Cited in Hamer (1988:1) where facility management was defined as

the discipline of planning, designing, constructing and managing space in every type of structures from office buildings to process plants. It involves developing corporate facilities policy, long-range forecasts, real estate, space inventories, projects through design, construction and renovation, building operation and maintenance plans and furniture and equipment inventories. The definition emphasized the importance of space management and the expectations of a good facility management process. Also, the definition signified the applicability of facility management to diverse human endeavor.

However, special consideration should be given to peculiarity of an organization or a work place where facility management is to be applied. Sekula (2003) emphasized that for a facility manager to succeed in an organization, it is important for the facility manager to understand the overall organization and their culture. Therefore, it could be inferred that consideration for peculiarity of an organization is important for the success of facility management. Also, Lennerts (2011) identified the task of a facility manager as management and coordination interrelated people, process, and place. It can be deduced from this assertion that people, process and work place of different organizations are different. In line with this thought, Gillead and Tam (2002) introduced the concept of appropriate workplace strategies. The strategies are new ways of coordinating work process, organizing office culture, applying IT and generally improve staff morale. Durodola (2009) posited that appropriate workplace strategies is increasingly seen as changing work practices, reducing space costs, and meeting workers preference. The researcher posited that this process is referred to as Churn rate by the American and British facility management practitioners. In addition, this process was referred to as the heart of facility management.

As a result of the established fact of deplorable state of facilities in Nigerian Universities, it becomes imperative to examine the facility management practices in two Universities with different population strength and ownership status. Odediran, Gbadegesin and Babalola(2015) examined the facility management practice of public Universities in Nigeria. The study established that facility management practice of Nigerian public universities is poor. This study will be examining facility management practice in public and private universities in order to establish if there is difference in the two. The study will adopt two proxim universities located in an urban area. The study will adopt University of Lagos, Lagos and Bells University of Technology Ota as case study. The two institutions were selected based on their location in an urban area and

ownership status which are; public and private institutions. Peculiarities of the two study areas will be considered in appraising the application of facility management to the operation of two organizations. Application of facility management to the operation of the two organizations will be done in the light of the products or services rendered by the two organizations. The aim of the study is to assess application of facility management in Nigerian public and private universities. The objectives are: to establish the hardcore and soft facility management services rendered in the universities and the mode of execution. Also, the study will examine the level of user's satisfaction with the facility management services rendered in the two institutions. The next sections of the study will be divided as follows: study areas, literature review and conceptual framework, methodology, analysis and discussion, and conclusion.

2. Theoretical Background and Conceptual Framework

FMA Australia (2012) identified activities of some professionals that could be mistaken for facility management. The body identified that the following professionals activities could be facility management at the same time could be another thing apart from facility management: accommodation manager, building manager, building supervisor, caretaker, contracts manager, essential services manager, maintenance and service manager, facilities services manager, facility administrator, facility management consultant, facility operations manager, operations manager, and property manager. Organizations could mistake activities of these professionals as facility management while what they are doing is totally different from facility management. Hammer (1988) described facility management as practice that includes; maintenance management, property management but more importantly, workspace management, churn management, strategic property management, and the management of support services. It can be deuced from the definition that facility management includes maintenance management and property management. Many professionals including the above listed professionals do confuse execution of property management and maintenance management works as against facility management.

The IFMA model of a triangle of P's summed up facility management focus in today workplace into: people, process and place. These three factors are interdependent and have reciprocal relationship. Armstrong (1992) substantiated the IFMA position by asserting that physical environment needs to be managed in concert with people and job process.

Kincaid (1994) describe facility management as a support role or service part of organization's non-core business (Supply side) and serving the needs of primary activities or core business (demand side). The researcher concluded by saying a facility manager work is to reconcile the demand and supply aspects in an organization. Reconciliation of people, work process and work place in a harmonious way is the work of a facility manager. However, during the course of reconciling these major components of an organization, it became imperative to identify the core function of an organization and the supporting functions that facilitate the core business. Ability to reconcile the core and supporting functions is what make a good facility manager.

Furthermore, Patanapiradej (2002) identified workplace management as the central focus of a facility manager in an organization. However, while managing workplace, a facility manager needs to fulfill two roles. The first role is using the organization's capital resources, especially, property, physical plant and facilities. The second is managing the organization's support services both routinely and in emergencies. The research work posited further that the two management roles integrate three main activities which are: property management (real estate), property operations and maintenance and office administration. Barrett and Owen (1992) divide facility management into two broad categories by function analysis: operational or implementation functions and management functions. It can be deduced that facility management in an organization involves core business function of an organization and supporting functions. The core function is the primary function of an organization and the supporting functions are the roles to ensure smooth running of an organization in order to achieve the primary objective.

Probst-Wallace (2012) classified facility management into hard and soft services. Furthermore, the study identified the various services that belong to each classification. Hard services relate to services that as to do with fabric and building system and might also be considered as the more traditional property management and maintenance services, this include: building fabric maintenance, decoration and refurbishment, M&E plant maintenance, plumbing and drainage, air-conditioning maintenance, lift & escalator maintenance, fire safety system maintenance, minor project management. Soft services include: cleaning, security, handyman services, waste disposal, recycling, pest-control, grounds maintenance, internal plants. The study further classified the following as additional services: move management (churn), pace planning, business risk assessment, business continuity planning, benchmarking,

space management, contract procurement, performance management, information systems, telephony, travel booking, utility management, meeting room services, catering services, vehicle fleet management, printing services, postal services, archiving, concierge services, reception services, health and safety advice, and environmental management. Furthermore, the study revealed that all the services can be executed in house or out-sourced or by adopting the two methods depending on the policy of an organization. This study will examine application of facility management to universities and stadia by accessing how all the above listed functions are executed in the two study areas.

3. Facility Management of Universities

Ogebifun (2011) evaluated facility management in a multi-campus setting adopting University of Witwatersrand as a case study. The study evaluated facility management system in use in the multi-campus university and how the university administration and academic staff perceive facility management contribution to the core objectives of the university. The scholar employed questionnaire and interview to gather data and the data were analyzed through descriptive statistics. Findings from the study revealed that two agencies were charged with the responsibility of facility management in the university. One of the agencies is charged with construction works and the other charged with maintenance. The first agency was assessed by administrative and academic staff on the following criteria; level of consultation, quality of internal management and reporting, quality of project delivery, delivering within budget and delivering within time. The academic and administration staff rated the agency high on quality of project delivery and delivering within budget and in time but low on level of consultation and reporting. The other agency was rated based on the following criteria; space management, consultation, functional services and response. The academic and administration staff rated the agency low in response and consultation but high in space management and functional services.

Hashim et al. (2011) assessed facility management performance in International Islamic University Malaysia. The study stated that the facility management services were handled in-house before the setting up of IIUM Properties Facilities Management Services charged with the responsibility of leading with a new concept of outsourcing the facility management services. The scholar posited further that the agency outsourced some services and collaborates with the contracting firm for execution of the

facility management services with sole aim of technology transfer. The study categorized facility management services into technical services and non-technical services. The scholar employed four key performance indicators to evaluate the performance of facility management in the university. These key performance indicators are: flexibility, effectiveness, efficiency and creativity. The scholar emphasized the flexibility structure of the facility management unit which is public-private in nature. Also, the facility management was adjudged effective and efficient. The introduction of retrofits as a power saving mechanism was adjudged as a creative measure.

Ikediashi et al. (2012) in a study outsourcing of facility management services among Nigeria public universities, established that outsourcing is a novel management strategy for improving service delivery. The study emphasized that outsourcing is gaining popularity among Nigeria public universities as a way for improving value for money in public service delivery. The study reviewed literatures on the concept of outsourcing and facility management as part of a larger study. Findings from the study reveal that there is paucity of research on best practices of outsourcing support tools and management of outsourcing risk.

Kamarazally et al. (2013) examined the current and future challenges faced by Australasian universities facilities managers, analyze their associated risk levels and establish practical ways to address the identified challenges. Interviews were conducted with 25 members of Australasian facility managers (UFMs). The construct at the pilot interviews were used to design a structured but open-ended questionnaire with which the Tertiary Education Facilities Managers Association (TEFMA) members were surveyed. The analysis was done using multi-attribute method. Findings from the study revealed that the following are the challenges faced by facility managers in diminishing order of significance; inadequate funding, emergency management and business continuity planning, statutory compliance, sustainability and environmental stewardship, keeping up with rapid changes in technology, operational efficiency, identifying and meeting stakeholder needs, maintenance and manpower. Preparing and responding to disaster was perceived as the most critical challenge of facility management. Overall, poor funding was identified as the cause of other challenges. The following were suggested as possible solutions; optimized asset utilization, supporting business for capital investment with verifiable rate of return, linking facility management and corporate strategies and investment in efficient technologies.

Odediran et al. (2015) examined the facility management practices in the Nigerian public universities. The study was designed to achieve the following objectives; to examine the facility management practices in the study areas, to examine factors influencing facility management practices in the study areas, and strategies for improving facility management practices in the study areas. Data were collected through a well-structured questionnaires administered on both the managerial and technical officers charged with the responsibility of facility management. Data collected were subjected to descriptive and inferential statistical tool. Findings from the study revealed that facility management practices in the study areas are mostly reactive and reliability centered. Also, the following are factors influencing facility management practices in order of importance; state of deterioration of facilities, level of technology for facility management and funding. The study suggested outsourcing, enhanced managerial goal, facility inspection and facility management plan as strategies for improving facility management practices. All the studies examined different aspects of facility management. However, none of the study examined the level of satisfaction of facility management users with each facility in a university community.

4. Methodology

Data for the study was gathered through administration of structured questionnaires, and interview of staff and students in the study areas. The core services and support services of the two study areas were also observed. The study examined how facility management is effective in the smooth running of the universities. The study also examined how facilities in the study areas are managed to ensure that the core and supporting services of the study areas are achieved. It also examined the satisfaction of the users of these facilities.

The study population in the study areas is depicted with Table 1.

Table 1 Population of Universities under study

	University of Lagos		The Bells University	
	N	n	N	n
Student	57,000	164	2,300	154
Staff	2,520	155	450	121
Total	59,520	319	2,750	275

The sample size was determined by employing Frankfort-Nachmias model 1996:

$$n = \frac{Z^2 \times p \times q \times N}{e^2 \times (N-1) + (Z^2 \times p \times q)}$$

Where:
Z: Area under normal curve
p: Estimated proportion of population
q: 1-p
e: Margin of error

Out of the 319 questionnaires administered in University of Lagos, 258 questionnaires were retrieved which translate into 81% of the respondents and 228 questionnaires were retrieved from Bells University of Technology which translate into 82%. The questionnaires were administered to lecturers in their offices in the various faculties through the help of the faculty administrative officers and at the student's hall of residence through the help of the student's hall executives. This led to the high retrieval rate of the questionnaires. Data gathered were analyzed through the aid of thematic diagrams, tables, descriptive statistics and relative importance index. The relative importance index shows the level of satisfaction of the users with the facility management services rendered.

5.   Discussion

Facility management at two universities was undertaken with respect to two categories, which are hard services and soft services. These two services complement one another towards the success of overall facility management progress Tables 2 to 5 show facility management methods done in two universities based on field survey.

Core function of the university- The core business of the university is teaching and research. The facility management department functions observed in ensuring that the core business of the university is achieved are the following: maintenance of the lecture rooms, maintenance and management of the teaching materials like projector, electronic boards, white board, lecture room sits and tables, maintenance of student hostels, maintenance of the laboratories and workshops, maintenance and upkeep of lecturers offices, maintenance of library, Information technology management, maintenance of the computer hardware and software, Construction works for lecture rooms, hostels, library, laboratory, staff quarters, archiving and record keeping, cleaning of lecture rooms, offices, laboratories, libraries, conference rooms, conference room management, janitorial services.

Allied function of the university – These are the activities that are in place for the smooth running of the

Table 2: Facility Management of Hard Services at the Bells University of Technology

Services	Method of Facility Management	Remarks
Building/Road Fabric Maintenance	Direct labour and contract by Department of Physical Planning (DPP)	DPP normally carry out corrective maintenance
Decoration and Refurbishment	In house done by Department of Physical Planning	DPP works are coordinated by the Architectural section.
M&E Plant Maintenance	In house done by Department of Physical Planning/Outsourced if it requires advance technical work	Generating sets routine maintenance are done by the DPP Staff but technical repairs are outsourced
Plumbing and Drainage	In house done by Department of Physical Planning	Plumbing works are done by DPP Staff but bore-hole drilling is outsourced.
Air conditioning Maintenance	In house DPP	DPP staff carry out the air conditioning maintenance
Lift & Escalator Maintenance	Not applicable	No high rise building
Fire Safety System Maintenance	In house by DPP	It was noted during observation that fire extinguishers expiring dates are not usually considered.
Minor Project Management	In house DPP	DPP execute project management

Table 3: Facility Management Method of Soft Services at The Bells University of Technology

Services	Method of Facility Management	Remarks
Cleaning	In house coordinated by a supervisor under DPP	The university executes cleaning services in house through the DPP
Security	Outsourced coordinated by Chief Security Officer (CSO)	Coordinated by office of the CSO
Handyman Services	In house DPP	DPP
Waste Disposal	Private Sector Participation (PSP)	Cleaners packed waste products to a central location where PSP and waste recycling company lift the waste.
Recycling	Outsourced	Sorted Out waste products are lifted by recycling companies
Pest Control	In house DPP	Fumigation activities are carried out by DPP staff
Grounds maintenance	In house DPP	DPP Staff
Internal Plants	In house DPP	DPP Staff
Move Management (Churn)	In house DPP	There is no arrangement for move management in assigning offices that corresponds with post.
Pace Planning	Not Applicable	N/A
Business Risk Assessment	Bursary department	The bursary carry out the business risk assessment study for any venture to be carried out by the university consult.
Benchmarking	Vice-chancellor office	Done through the office of Deputy Vice-Chancellor
Space Management	In house DPP	DPP.
Contract Procurement	In house Bursary department	Done by procurement section of the bursary. It was discovered that the officers in charge lack knowledge of procurement of specialized goods but are still entrust with such assignment.
Performance Management	Registrar office	This is coordinated through the department of Human Resources
Information Systems	Directorate of Computer services	Information Technology coordinated by Directorate of Information Services
Telephony	Not Applicable	N/A
Travel booking	Vice-chancellor office	Protocol Office ,Vice-Chancellor Office
Utility management	Procurement/Store office under bursary	Bursary Office
Meeting room services	Protocol under Vice-chancellor's office	Protocol Office, Vice-chancellor Office
Catering Services	Protocol under vice-chancellor's office	Protocol Office, Vice chancellor office
Vehicle fleet management	In house DPP	DPP office
Printing Services	Outsourced	Outsourced
Postal services	Registrar Office	Registrar Office
Archiving	Registry under registrar office	Registrar Office
Concierge Services	N/A	N/A
Reception Services	Protocol, Vice-chancellor's office	Protocol Office, Vice-chancellor office
Health & Safety Advice	No structure on ground	No structure for Health and Safety
Environmental Management	No structure on ground	No structure for Health and Safety

university and for achieving the primary objective of the university. The following are the allied factors: Catering services, Security, Cleaning, Vehicle fleet management, waste disposal, Power generating set maintenance, space management, Mechanical and Electrical maintenance, arterial roads construction and maintenance, input for strategic planning, protocol services.

It was discovered that facility management functions in Bells University of Technology, Ota are executed by six departments or sections. The following sections are charged with different facility management functions: Vice-chancellor office, Registrar office, Bursary department, Directorate of Information Technology and Computer Services, Chief security Officer Office, and Directorate of

Physical Planning. The disadvantage of entrusting facility management functions to different department is difficulty in reconciling information. It will be difficult for the various departments to reconcile necessary information that could foster decision making. Also, this arrangement can lead to duplication of roles and delay in execution of projects due to uncoordinated structure.

Also, it was discovered that procurements are done through the bursary department with little inputs from professionals who have expertise in the field where the goods are needed. This could lead to procurement of inferior goods or unspecified goods in some instance. Also, there is no arrangement for move management or churn management in the university. Employees are not moved to new offices

when they attain new status and designations. Majority of staff are in the same office for years even after their promotion. In addition, maintenance policy in the university is corrective and not preventive. Maintenance works are executed after damage has been done. It was also observed that there is no laid down procedure for health

Table 4: Facility Management Methods of Hard Services at the University of Lagos

Services	Method of Facility Management	Remarks
Building/Road Fabric Maintenance	Contracted	Department of works coordinate activities of the contractor.
Decoration and Refurbishment	Outsourced and supervised by department of works.	Department of works supervise refurbishment.
M&E Plant Maintenance	Minor problems fixed by in-house Mechanical/Electrical technicians and Major problems outsourced	Technicians use to do routine maintenance of the generating sets, flood light and other electrical fittings.
Plumbing and Drainage	In house done by an in house Plumber	Major plumbing works coordinated and supervised by staff of M&E department at the department of works attached to stadium.
Air conditioning Maintenance	In house by Technicians	Supervised by electrical and mechanical engineers of the department of works
Lift & Escalator Maintenance	Outsourced	Supervised by the department of works
Fire Safety System Maintenance	In place	Ensured to be in good condition by the attached supervisor.
Minor Project Management	In house, supervised by attached staff of the department of works.	Department of works officers.

Table 5: Facility Management Method of Soft Services at the University of Lagos

Services	Method of Facility Management	Remarks
Cleaning	Outsourced	The cleaning services is outsourced
Security	In house coordinated by Chief Security Officer	Coordinated by office of the CSO
Handyman Services	Done by Department of Works	department of works
Waste Disposal	Private Sector Participation (PSP)	Cleaners packed waste products to a central location where PSP and waste recycling company lift the waste.
Recycling	Outsourced	Sorted Out waste products are lifted by recycling companies
Pest Control	Outsourced	Done by fumigation contractors
Grounds maintenance	In house supervised by the Department of Works	Department of Works
Internal Plants	In house supervised by the Department of Works	Department of Works
Move Management (Churn)	In house done by the Director of works.	There is no arrangement for move management in assigning offices that corresponds with post.
Pace Planning	Not Applicable	N/A
Business Risk Assessment	Bursary Department	The bursary department carries out the business risk assessment study for any venture to be carried out by the stadium consult.
Benchmarking	Office of the Deputy Vice-Chancellor academics and Deputy Vice-Chancellor Administration with the approval of the Vice-chancellor	Deputy Vice-chancellor academics, Deputy Vice-chancellor administration
Space Management	In house	In house
Contract Procurement	Deputy of Vice-chancellor Administration, Bursar and Director of works.	Approved by the Vice-chancellor, with the recommendation of the director of works and the bursar.
Performance Management	Head human resources and the registrar	This is coordinated by the office of the registrar.
Information Systems	Computer services department	Information Technology coordinated by department of computer services
Telephony	Director of works	Director of works
Travel booking	Protocol Units, Vice-chancellor office	Office of the Vice-Chancellor
Utility management	Director of works	Director of works
Meeting room services	Director of works	Coordinated by Director of works
Catering Services	Outsourced	Outsourced to private food vendors
Vehicle fleet management	In house Coordinated by Director of works	Director of works
Printing Services	Outsourced and In house	Some printing are done in house, while some are out-sourced
Postal services	The registrar	Registrar office
Archiving	Registry under Registrar	Registrar
Concierge Services	N/A	N/A
Reception Services	Vice-chancellor's office	Vice-chancellor's office
Health & Safety Advice	Director of health services	Director of health services
Environmental Management	Director of health services	Director of health services

and safety advice and environmental/sustainability management.

It can be concluded that facility management functions in the university is un-coordinated. Various agencies execute different functions which will make it difficult to reconcile information in order to formulate policy.

Table 6 examined the user's satisfaction with the facility management of hard services at Bells University of Technology, Ota. Fire safety system maintenance ranked first with a relative importance index of 4.7193 as the most satisfied hard core facility management services rendered in the study area. Building/Road fabric maintenance ranked second as the most satisfied hard services in the study area with a relative importance index 4.0965. It was gathered that the users of services in the university community are satisfied with the maintenance of building and road structure in the university. Maintenance of

mechanical and electrical fittings ranked third with a relative importance index of 3.9211. Maintenance of minor projects ranked fourth with a relative importance index of 3.3246 and maintenance of air-condition ranked fifth with a relative importance index of 2.9868. Lastly, plumbing and drainage ranked sixth and decoration and refurbishment ranked seventh with a relative importance index of 2.7456 and 2.6798 respectively.

The findings in table 6 were corroborated by the users. The respondents revealed that there are good fire precautionary measures in the university. Also, the staff and student of the university attest to good road and building maintenance policy in the institution. This was also observed as there were no noticeable bad roads in the university. However, the respondents complained about beautification of the campus in terms of refurbishment and decoration. Also, the plumbing and drainage facilities were reported to be in poor state by the respondents and this ranked sixth.

Table 6: Users satisfaction with Facility Management of Hard Services at the Bells University of Technology Ota

Services	Excel-lent=5	Good=4	Fair=3	Less Fair=2	Poor=1	Weight= EFX	RII=EFX /Ef	Rank
Building/Road Fabric Maintenance	78	112	20	18	–	934	4.0965	2nd
Decoration and Refurbishment	–	32	117	53	26	611	2.6798	7th
M&E Plant Maintenance	21	168	39	–	–	894	3.9211	3rd
Plumbing and Drainage	–	40	110	58	20	626	2.7456	6th
Air conditioning Maintenance	1	**77**	94	30	26	681	2.9868	5th
Fire Safety System Maintenance	86	118	24	–	–	974	4.7193	1st
Minor Project Management	24	78	100	26	–	758	3.3246	4th

Table 7: Users satisfaction with Facility Management of Soft Services at the Bells University of Technology Ota

SERVICES	Excel-lent=5	Good=4	Fair=3	Less Fair =2	Poor=1	Weight=EFX	RII=EFX/EF	Rank
Cleaning	53	117	32	26	–	881	3.8640	3rd
Security	30	71	94	26	1	768	3.3684	9th
Handyman Services	–	40	110	58	20	626	2.7456	16th
Waste Disposal	94	77	30	26	1	921	4.0395	1st
Recycling	26	118	60	24	-	830	3.6404	4th
Pest Control	24	78	100	26	-	784	3.4386	8th
Ground maintenance	11	39	168	10	-	735	3.2237	12th
Internal Plants	–	28	150	41	9	653	2.8640	14th
Move Management (Churn)	–	10	109	79	30	555	2.4342	18th
Benchmarking	29	98	73	25	3	809	3.5132	7th
Space Management	7	100	56	55	10	723	3.1711	13th
Contract Procurement	4	78	100	40	36	748	3.2807	11th
Performance Measurement	-	73	115	40	-	757	3.3202	10th
Information Systems	-	26	139	60	3	644	2.8246	15th
Meeting room services	32	77	118	1	-	824	3.6140	5th
Catering Services	50	110	60	8	-	886	3.8859	2nd
Printing Services	-	23	60	75	70	492	2.1579	19th
Postal Services	7	48	73	65	35	611	2.6798	17th
Archiving	53	65	82	19	9	811	3.5877	6th

Table 8: *Users satisfaction with Facility Management of Hard Services at University of Lagos, Lagos*

Services	Excellent=5	Good=4	Fair=3	Less Fair =2	Poor=1	Weight= EFX	RII=EFX /Ef	Rank
Building/Road Fabric Maintenance	84	53	38	72	11	901	3.4922	1st
Decoration and Refurbishment	24	39	50	83	62	654	2.5349	7th
M&E Plant Maintenance	12	38	116	60	32	712	2.7597	5th
Plumbing and Drainage	2	15	30	172	39	543	2.1047	8th
Air conditioning Maintenance	44	86	53	37	38	835	3.2364	3rd
Lift & Escalator Maintenance	11	56	72	80	39	694	2.6899	6th
Fire Safety System Maintenance	52	77	69	43	17	878	3.4031	2nd
Minor Project Management	26	60	119	33	20	813	3.1512	4th

Table 9: *Users satisfaction with Facility Management of Soft Services at University of Lagos, Lagos*

SERVICES	Excellent=5	Good=4	Fair=3	Less Fair =2	Poor=1	Weight=EFX	RII=EFX/EF	Rank
Cleaning	40	121	70	27	-	948	3.6744	3rd
Security	13	86	77	69	13	791	3.0659	6th
Handyman Services	1	63	88	79	27	706	2.7364	15th
Waste Disposal	44	139	36	30	9	953	3.6938	2nd
Recycling	14	36	100	80	28	702	2.7209	16th
Pest Control	36	113	67	34	8	911	3.5310	4th
Ground maintenance	4	46	60	117	31	649	2.5155	18th
Internal Plants	6	42	120	76	14	724	2.8062	12th
Move Management (Churn)	-	-	80	160	18	578	2.2403	19th
Benchmarking	3	86	82	49	38	741	2.8700	11th
Space Management	6	44	126	52	30	718	2.7829	14th
Contract Procurement	36	70	100	33	19	845	3.2752	5th
Performance Measurement	-	80	112	36	30	758	2.9380	10th
Information Systems	3	37	170	48	-	769	2.9806	8th
Meeting room services	13	26	99	97	23	683	2.6473	17th
Catering Services	7	40	163	42	6	774	3.0000	7th
Printing Services	51	118	72	17	-	977	3.7868	1st
Postal Services	3	68	121	49	17	765	2.9651	9th
Archiving	17	42	103	69	27	719	2.7868	13th

Table 7 examined user's satisfaction with the soft facility management services rendered in the study area. Waste disposal ranked first with a relative importance index of 4.0395, catering services ranked second with a relative importance index of 3.8859 and cleaning ranked third with a relative importance index of 3.8640. Also, recycling service ranked fourth, meeting room services ranked fifth and archiving ranked sixth with relative importance index 3.6404, 3.6140 and 3.5877. Benchmarking service ranked seventh with a relative importance index of 3.5132 and pest control ranked eight with a relative importance index of 3.4386. Security ranked ninth with a relative importance index of 3.3684 and performance measurement ranked tenth with a relative importance index of 3.3202. Contract procurement ranked eleventh with a relative importance index of 3.2807 and ground maintenance ranked next with a relative importance index of 3.2237. Space management ranked thirteenth with a relative importance index of 3.1711 and internal plants

ranked fourteenth with a relative importance index of 2.8640. Information systems, handyman services, postal services, move management and printing ranked as follows; fifteenth, sixteenth, seventeenth, eighteenth and nineteenth respectively.

The findings from table 7 were corroborated by interview. It was gathered from the respondents that the university has a good waste disposal system. This corroborates its ranking as first. Also, the students and the staff of the university attest to the good catering services rendered by the food vendors of the university. Furthermore, it was gathered that the respondents are satisfied with the cleaning services rendered by the employed cleaners which also corroborate the ranking of cleaning as third. However, the staff and students of the university are least satisfied with the printing services rendered in the university that ranked 19th. Also, move management (churn) ranked 18th. The staff revealed that their offices remain constant despite

change in their status which justified that churn management in the university is poor. It was also gathered from interview that there is no post-office or posting outlet in the university. However, it was gathered that staff of Nigerian postal services use to visit the intuition ones in a week to deliver and collect letters. This justified why postal services ranked 17th.

Table 8 examined facility management services at University of Lagos, Lagos, Nigeria. Building/road maintenance fabric ranked first with a relative importance index of 3.4922. Fire safety system maintenance ranked second and air conditioning maintenance ranked third with relative importance index of 3.4031 and 3.2364 respectively. Minor project management ranked fourth and Mechanical and Electrical plant maintenance ranked fifth with relative importance index of 3.1512 and 2.7597 respectively. Lift escalator maintenance and decoration and refurbishment ranked sixth and seventh with relative importance index of 2.6899 and 2.5349. Lastly plumbing and drainage ranked eight with a relative importance index of 2.1047.

The findings from table 5 were corroborated with interview. It was gathered from the users that the university's plumbing and drainage system is poor. This corroborates its ranking as eight. Also, it was gathered that the refurbishment and decoration of the university is not encouraging which also corroborate its ranking as seventh. However, the users stated that they are mostly satisfied with the maintenance of the building/road fabric and this corroborate with its ranking as first. Also, it was gathered from the interview that the university have firefighting equipment in place which justify its ranking as second. The air-conditioning in the staff offices and lecture rooms are said to be working well which justified the ranking of air-conditioning as third.

Table 9 examined user's satisfaction with the soft facility management services rendered in the University of Lagos. Printing services ranked first with a relative importance index of 3.7868, waste disposal ranked second with a relative importance index of 3.6938 and cleaning ranked third with a relative importance index of 3.6744. Also, pest control ranked fourth, contract procurement ranked fifth and security ranked sixth with relative importance index 3.5310, 3.2752 and 3.0659. Catering service ranked seventh with a relative importance index of 3.0000 and information system ranked eight with a relative importance index of 2.9806. Postal services ranked ninth with a relative importance index of 2.9651 and performance

measurement ranked tenth with a relative importance index of 2.9380. Benchmarking ranked eleventh with a relative importance index of 2.8700 and internal plants ranked next with a relative importance index of 2.8062. Archiving ranked thirteenth with a relative importance index of 2.7868 and space management ranked fourteenth with a relative importance index of 2.7829. Information systems, handyman services, recycling, meeting room devices, ground maintenance and move-management ranked as follows; fifteenth, sixteenth, seventeenth, eighteenth and ninth. All these ranking were corroborated with the interview conducted.

6. Conclusion and Recommendations

The study examined application of facility management in two Nigerian Universities. The study examined the hard and soft facility management services in the two universities. The modes of execution of the soft and hard services in the study areas were examined. It was gathered that some services were outsourced while some were executed in-house in the study areas. The study revealed further that the hard services have direct impact on the primary function of the university which is research and teaching. Also, it was gathered that the soft services are necessary for the smooth running of the universities. The classification of facility management into soft and hard services is in line with Probst-Wallace (2012) model. Also, the study was structured based on International Facility Management Association model of facility management which recognizes; people, process and place.

The study examined the user's satisfaction with the soft and hard services in the study areas. It was gathered that the ranking varies from one university to another. Some of the implied cause of the variation has to do with funding, the ownership status of the two institutions and facility management policy of the two institutions. However, facility management best practices should not be compromised irrespective of the causative factors. Hard services like plumbing and drainage and refurbishment and decoration need to be addressed in the two universities due to their poor ranking. Also, soft service like move management (churn) needs to be well addressed. There should be policy in place that will move staff to another office whenever their status changes. Finally, the two universities need to establish a facility management department that will coordinate both the hard and soft services. Also, the composition of the department must include all necessary professionals ranging from: Builders, Electrical Engineers, Mechanical Engineers, Civil

Engineers, Human resources practitioners, Air-conditioning technicians and other allied professionals.

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