### Assessment of Facilities Management Practice in Joseph Ayo Babalola University (JABU), Ikeji, Osun State, Nigeria

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#### Abstract

This research seeks to evaluate facilities management practices in Joseph Ayo Babalola University (JABU) and then look at the relationship between this function and the university core functions. The study adopted the survey research design and questionnaire was the main source of data collection which was administered on the occupants of the main facilities in the university. They were selected, using proportionate stratified sampling technique. The data collected was analyzed using descriptive statistics. Relative importance index and Pearson Correlation coefficient were adopted for the data analysis. The study revealed inadequacy of fund which ranked 1<sup>st</sup> with mean weighted value of 4.045, and lack of understanding of the concept of facilities management which ranked 2<sup>nd</sup> with a mean weighted value of 3.787 as the main causes of maintenance challenges in the university. The finding further revealed that the academic staff, non-academic staff and the students observed that there was a significant positive relationship between facilities management activities and the University function of teaching, and reading. Students only differed in the case of research with insignificant p-value of 0.765 that was greater than the critical value of 5%. It was recommended that periodic collation of the views of students, staff (academic and non-academic) and other stake holders such as the operators of commercial activities on the state of the built environment should be actively encouraged. Maintenance unit either via In-house facility management system or outsourced facility Management Company should be headed by an experienced Facility Manager and the unit should be given autonomy to function.

Keywords: Facility Management, Sustainable, Maintenance, Research, Reading, Teaching

#### Introduction

Universities are the main places where ideas that propel mankind have continuously been generated and nourished. Lecturers. researchers, students and other stakeholders in universities require stimulating, conducive and functional environment to carry out their activities, hence the functionality, the beauty and appealing aesthetics of the facilities in the universities cannot be overemphasized. Barrett et al (2003) described Facilities Management (FM) as one of the emerging, multidisciplinary professions that covers a variety of FM services.

FM is concerned with people and their interaction with building. It is defined by the

United State Library of Congress in 1992 as "the practice of coordinating the physical work place with people and work of the organization." It integrates the principles of business administration, architecture and the behavioral sciences. It offers a way of measuring the reaction of people as beneficiaries of maintenance activities to maintenance management. Mbamali (2003) stated that poor maintenance culture has become a widely recognized problem in Nigeria which has negatively affected the quality of public properties. The manifestation of maintenance failures, especially as regards buildings and their accessories is a reflection of the trend in Nigeria Universities and the Private Universities in Nigeria are not exemption.

The importance of maintenance in the life of anv capital asset cannot be over emphasized. It does not matter whether or not the capital asset in question belongs to a private person, a corporate person or government. With respect to buildings, inadequate attention to maintenance has accumulative results with increasing deterioration of the fabric and decoration accompanied by harmful effects on the content and occupants (Seely, 1987).It was in realization of this, that the Federal Ministry of Finance (2001 Budget Proposal Call Circular) advised that all government agencies must make provisions in their budget proposals for the purpose of maintaining existing facilities. This was to enforce maintenance culture (Esenwa, 2000).

Esenwa (2000) established that "effective maintenance requires correct diagnosis of defects and implementation of the correct measures based on sound technical knowledge. otherwise there can be additional waste of materials, labour and money. Hence, the need for maintenance management studies for increased effectiveness, efficient utilization of resources and increased productivity."

Global attention is recently moving towards In the built environment sustainability. profession, it is observed that sustainability is increasingly becoming an important issue. The facilities manager is expected to apply the regulations to reduce the release of carbon into the environment in the course of carrying out his duty as a facilities manager. A majority of the burden for the reduction of carbon emissions in the built environment lies with the facilities managers as their key responsibility is at the operational phase of buildings which lasts much longer than the construction phase. Thus, Elmualim et al. (2009) stated that the facilities manager is at the forefront of delivering sustainable facilities management and contributing to sustainable development. Sustainability at the organisational level refers to enhancing the firm's profitability, adopting and pursuing ethical business practices, creating sustainable jobs, building value for all

stakeholders and, at the same time, meeting environmental and social needs (Porter, 2008; Székely & Knirsch, 2005).

Sustainable facilities management (SFM) is the practice of managing buildings and operations in a sustainable manner. The goals of SFM are to reduce the impact of an organization's operations on the environment, to save money, and to improve the quality of life for customers, employees, and other stakeholders. In order to achieve these goals, sustainable FM practitioners implement a variety of sustainable practices, such as energy efficiency, water conservation, waste wastage reduction, and sustainable procurement. These practices in addition to the enhancement to the property management practice and saving money also help to improve the health and wellbeing of employees and other occupants of the buildings.

A Sustainable Facility Management (SFM) practice will assist the university to achieve its objective without losing focus on its core functions. The study will evaluate the current FM practice in the university and examine the relationship between these functions and the core functions of the university with a view to recommend ways to go about achieving SFM in the institution.

#### **Concept of Facilities Management**

Facility management is the development, coordination and control of the none-core specialist's services necessary for an organization to successfully achieve its principal objectives. Facilities management (FM) offers a way of measuring the reaction of people as beneficiaries of maintenance activities to maintenance management. It is concerned with people and their interaction with building. The management of facilities is situated in the realm of management of property or real estate and infrastructure, plants and machinery. This is best situated in maintenance management. Facilities management can further be referred to as the integrated corporate function in a cultural diverse and technological complex public corporation. It entails bringing together, the key resources of an organization, finance, people, processes a technology, in order to create a definitive plan that optimizes the resource investment.

Barret and Nere (1993) defines facilities management as 'an integrated approach to operating, maintaining, improving and adapting the building and infrastructure of an organization in order to create an environment that strongly supports the objectives of that organization. Facilities Management is a common practice in all organizations. It is either practiced as Inhouse facility management system or outsourced. The wide range of facilities management services are being performed through ad hoc assignment to any officer, additional portfolio to a non-technical staff, a small maintenance unit, functional facilities management office, independent facilities management services provider at local, national and international capacities (Barret, and Baldtry, 2003).

Facilities management is a multidisciplinary and trans-disciplinary profession. It draws on theories and principles of engineering, architecture, design, accounting, financial management and behavioral sciences. The scope of facilities management according to Odiete (1998) is limited to Real estate, project management, space management, premises operation and office services.

## The Practice of Sustainability in an Organization

Sustainable practice contributes to the success of an organization. It enhances the profitability of an organization, helps the organization to pursue ethical business practice, create jobs, provide values for all the stakeholders and helps to meet environmental and social needs (Porter, 2008; Székely & Knirsch, 2005). For an organization to be successful, sustainably must be embedded in its organizational structure and incorporated in its mission and vision policy (Hitchcock & Willard, 2006).

The awareness for the practice of Sustainable Facilities Management increases globally. For example, a survey conducted by PricewaterhouseCoopers in 2022 for US Companies revealed that sustainability practices were adopted by 75%, while the plan to issue a sustainability report and the expectation that sustainability will be more critical after five years recorded 73% and 89% respectively (Hitchcock & Willard, 2006). They further stated that adoption of sustainability will minimize the operational cost of an organization, and improve organization goodwill. Other benefits of sustainability according to (Székely & Knirsch, 2005) includes, provision of higher efficiency in terms of materials and energy consumption, increase in transparent and ethical practices, creation of a higher awareness of the needs of current century knowledge workers, respect for local communities, reduction of waste throughout the entire life cycle of the asset and being alert about the need to minimize unnecessary risks.

#### **Sustainable Facilities Management**

Facility management function is required throughout the life span of a building or project development, from the time of project conception through the time of construction to the maintenance stage, even at the point of disposal. At every stage of facility management, sustainable initiatives can help lower the building's carbon emissions, mostly from the start of site preparation for construction activities through its entire lifecycle. The alternative building to solve this problem of carbon emission is green building. Green building is an alternative building concept to combat much of the ecological imbalances and at the same time provide more habitable environment with minimal cost (Boyd, 2007). The need to incorporate green features in building practice in our institutions is of great importance. Adoption of green building in the developed economies have already achieved some successes, but the understanding of the concept is still very low in emerging economies that are challenged by rapid environmental population growth, degradation and poor working environments.

Sustainable Facilities management (SFM) is a process of managing buildings and facilities in a way and manner that it minimizes its harmful impact on the environment and people. The process of SFM considers three major areas. These arrears include the people, the environment and the economy. A detail study of how the facilities management practice affect these three pillars will assist on how to develop SFM practice that will have a positive influence on the organization.

#### Study Area

Joseph Ayo Babalola University is a private university owned by Christ Apostolic Church Worldwide. The university is duly approved by the National University Commission (NUC). It was established Presently the University has 8 2004. colleges, namely; College of Environmental Sciences, Agricultural Sciences, Law, Humanities, Management Sciences, Natural Sciences, Social Sciences, and Health Sciences. These are in addition to the school of Postgraduate Studies. It is located in Ikeji-Arakeji on Latitude of 7"24'54"N and Longitude 4"58'08'E. The University was the first entrepreneurial university in Nigeria. The university is a fully residential institution. Both student residential area and the staff quarters are located not too far to the academic area. The university has several buildings within the campus that provide services for both academic and administrative functions. Staff and students population in 2019/2020 academic session was 2,812. The University has a Physical Planning Unit. The Facility Management functions in the University are being carried out by the Physical Planning Unit headed by a Director of Work.

#### **Materials and Methods**

The research focuses on collecting, collating and analyzing the reactions of members of Joseph Ayo Babalola University community to the facilities management activities of the built spaces in the University. These spaces focused for the survey include those areas being used for teaching, research, reading, resting/relaxation, sports, administration and they represent the entire buildings of the University. Data were collected from the members of the University community using proportionate stratified random sampling technique. The target population purpose for the of questionnaire administration was the university community which is made up of 3 strata i.e the academic staff, non-academic staff and the students. The sample frame for the research is two thousand eight hundred and twelve (2,812). This is drawn from one hundred and eighty (180) academic staff, three hundred and thirty two (332) nonacademic staff and two thousand three hundred (2,300) students. This is represented in table 1 below. The sample size of 703 was used for the study which represents 25 percent of the total population. It was selected through the proportionate stratified random sampling technique. Equal sample selection from each stratum was adopted and considered efficient since we are comparing differences among the strata 2004).Total (Kothari number of questionnaire distributed was seven hundred and three (703) where forty five (45) were for academic staff, eighty three (83)for Nonacademic staff, and five hundred and seventy five (575) for students. Five hundred and eighty one (581) which represent 82.65% were retuned and found suitable for addition this. use. In to 45 buildings/facilities were randomly selected in the university and were investigated. Data analysis was achieved using descriptive analysis. The data collected was analyzed using Statistical Package for Social Sciences (SPSS) and Microsoft Excel. Tables, Percentages, Means and Standard Deviation were used to express the statistical results. The correlation coefficient of the relationship between maintenance activities (facilities management functions) and the function of the university (Teaching, Research, and Reading) were found using SPSS to achieve the objectives of this research.

# Data Analysis, Results and Discussion

The data were analyzed using tables and represented in percentages as shown below.

Table 2 show the state of repairs of the building facilities in the university. Physical condition of some selected facilities in the university such as road, building, fittings, furniture were investigated by the researcher. Dilapidated buildings were less than 1%. These were buildings that had severe cracks on walls, falling or leaking roofs, and in some cases were sinking into the ground where excessive flooding had taken place. They were considered unfit for habitation. Less than one-third (20%) of the buildings/facilities required major repairs to be effected to bring them to normative and structural quality. These too were unsafe for the inhabitants, and clearly constituted an affront to human dignity. Close to two-third of the buildings (62.22%) required minor repairs, while the remaining 16.56% were good enough to be regarded as sound.

Table 3 shows the perception of the users on the level of maintenance of the facilities in the study area. The table 3 above showed that the respondents agreed that the facilities are fairly and inadequately maintained as this ranked 1<sup>st</sup> on the list of the perceived general condition of the facilities in the institution. Some respondents were of the opinion that the maintenance is good while others seem the maintenance of the facilities as poor and excellent as these ranked 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> respectively.

Table 1:	Constitution	of Sample Size
	competition	or sample sine

S/N	Units	Population	Sample Size (25%)
1.	Academic Staff	180	45
2.	Non Academic Staff	332	83
3.	Students	2,300	575
	Total	2,812	703

Source: Personnel unit, JABU

S/N	Condition	Frequency	Percentage
1.	Dilapidated	1	0.02%
2.	Require major repairs	9	20%
3.	Require Minor repairs	28	62.22%
4.	Sound condition	7	16.56%
	Total	45	100%

Table 2: Physical Condition of the facilities in the Study Area as observed by the respondents

Source: Field Survey, 2020

		Rati	ing and V	Veighted V	alues				
S/ N	Managemen t of the Facilities	Strongl y Agree	Agre e	Neutra l	Disagre e	Strongly Disagre e	ΣW V	MW V	Rankin g
1	Facilities are well and excellently maintained	112	97	121	221	30	1,783	3.069	4th
2	The level of maintenance is considered good.	101	211	98	94	77	1,908	3.284	2nd
3	The facilities are fairly and inadequately maintained	232	162	33	99	55	2,160	3.718	1st
4	The facilities are poorly maintained	122	105	143	144	67	1,814	3.122	3rd

 Table 3: Maintenance of the facilities in the Study Area

Source: Field Survey, 2020

The table 4 shows the perception of the respondents on the factors responsible for the condition of these facilities. The responses are shown below. The table 4 above showed that the respondents agreed that the poor response time to maintenance management and inadequate training and development are the major cause of poor facilities management in the university as these ranked 1<sup>st</sup> and 2<sup>nd</sup> respectively. Other causes identified in order of their severity are lack of scheduled inspection, use of unskilled labor, corruption, inefficient inventory system, normal wear and tears, and lack of discernable maintenance culture in the Universities. These causes ranked from 3<sup>rd</sup> to 8<sup>th</sup> in that order. The respondents failed to agree that the use of substandard materials, faulty design and construction, abuse and damage, state of the nation's economy and natural causes are the cause of poor facility management in the university as these ranked least from 9th to 13th respectively. This indicated that they were perceived low by the respondents.

Table 5 shows the university community perception on the adoption of sustainable facility management practice in the institution. Table 5 showed the perception of the respondents on the level of adoption of Sustainable Facilities Management by the institution. On the five points ascending scale, majority of the respondents saw the institution as being prudent and good in cost saving as this rank first with weighted mean value of 4.040. Increasing human capacity and access to facilities ranked 2nd. While environmental management plan. green building implementing index. efficient waste reduction and water conservation ranked 3rd, 4th, 5th and 6th respectively. The respondents did not see any effort from the university authority in the area of developing a system for control and monitoring building management system, occupants' health and safety monitoring, and carrying out customer satisfactory survey as they rated 7th, 8th, and 9th respectively.

	a r	Rati	ng and W						
S/N	Causeative Factors	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree	ΣWV	MWV	Ranking
1	Poor response Time to Maintenance	278	192	22	49	40	2,362	4.065	1 <sup>st</sup>
2	Inadequate training and development of the Planning unit personnel	231	235	24	36	55	2,294	3.948	2 <sup>nd</sup>
3	Lack of scheduled inspection	211	132	122	63	53	2,128	3.663	3 <sup>rd</sup>
4	Use of unskilled labor	155	211	101	88	26	2,124	3.656	$4^{th}$
5	Corruption	103	314	43	87	34	2,108	3.628	5 <sup>th</sup>
6	Inefficient inventory system	181	189	61	99	51	2,093	3.602	6 <sup>th</sup>
7	Normal Wear and Tear	146	134	144	91	66	1,946	3.349	$7^{\text{th}}$
8	Lack of discernable maintenance culture in the University	144	151	97	119	70	1,923	3.310	8 <sup>th</sup>
9	Use of Substandard Materials	34	110	316	87	34	1,766	3.040	$9^{th}$
10	Faulty Design and Construction	45	138	231	123	44	1,760	3.029	10 <sup>th</sup>
11	Abuse and Damage	102	98	109	211	61	1,712	2.947	11 <sup>th</sup>
12	State of the Nation's Economy – Effect of Inflation on cost of maintenance by the operatives	13	41	151	233	143	1,291	2.222	12 <sup>th</sup>
13	Natural Causes	0	0	54	102	425	791	1.361	13 <sup>th</sup>

Source: Field Survey, 2020

S/	Factors	F	Rating and		MW	Ran			
N N	Demostrating SFM	Ofte n	Always	Sometim es	tim Rarely Ne		ΣWV	V	k
1	Initiative for cost reduction	216	244	70	30	21	2,347	4.040	1 <sup>st</sup>
2	Increasing human capacity/ access to facilities	108	174	211	34	54	1,991	3.427	2 <sup>nd</sup>
3	Environmental management plan on new project/building	54	71	213	234	9	1,670	2.874	3 <sup>rd</sup>
4	Implementation of green building index (GBI)	2	3	495	45	36	1,633	2.811	4 <sup>th</sup>
5	Efficient waste reduction and recycling	20	43	133	321	64	1,377	2.370	5 <sup>th</sup>
6	Water conservation/recycling /rainwater harvesting	21	12	152	201	195	1,206	2.076	6 <sup>th</sup>
7	Developing a system for control and monitoring building management system.	0	0	60	333	188	1,034	1.780	7 <sup>th</sup>
8	Occupants' health and safety monitoring	2	0	25	311	243	950	1.635	8 <sup>th</sup>
9	Carrying out survey on customer satisfaction	0	0	10	324	247	925	1.592	9 <sup>th</sup>

 Table5: Level of adoption of sustainable facilities management practice in the university

Source: Field Survey, 2020

Table 6 indicates that inadequacy of fund ranked 1st with mean weighted value of 4.045, lack of understanding of the concept of facilities management ranked 2<sup>nd</sup> with a mean weighted value of 3.787, while lack of manpower (Skilled/Semi skilled) ranked 3rd with WMV of 3.296. Lack of equipment was ranked 5<sup>th</sup> with WMV of 2.745. In the light of the above, the Planning unit has problems of funds to carry out maintenance work effectively. Composition of management ranked 4<sup>th</sup>. This may not be unconnected to thenon-inclusion of the Director of Physical Planning Unit in the management team of the university or not adequately effective in the management team, since this would have given the unit autonomy to carry out its function effectively.

The table 7 shows the perception of the academic staff on the relationship between the facilities management function and the function of the university. The result in table 7 showed that there was a significant relationship between maintenance activities and functions of the University. For

instance, it was found that there was a significant positive relationship between function of the University regarding teaching and maintenance activities. This inferred was premised on the fact that the correlation coefficient computed for the variable of 0.268 was positive with p-value of 0.030 that was less than the critical value of 5%. The implication of this was that as maintenance activities of the University increased, the academic staff the University were able to carry out their teaching function effectively. Also, it was observed from the table 7, that there was a significant positive relationship between research function of the academic staff and maintenance activities in the University. This assertion was based on the fact that the correlation coefficient obtained for the test variables of 0.315 was positive with p-value of 0.040 that was less than the critical value of 5%. The consequence of this was that a 1% increase in maintenance of the University might cause approximately 0.32% improvement in the research function of the academic staff. Thus, maintenance activities and research function of the academic staffs were directly related. More so, it was found that there was a significant positive relationship between reading and maintenance activities in the University. This statement was premised on the fact that the correlation coefficient computed for the test items of 0.092 was positive with significant p-value of 0.030 that was far less than the critical value of 5%. This implied that as the maintenance activities of the University of the academic staff to achieve their function as regard reading also improved.

The table 8 shows the perception of the nonacademic staff on the relationship between the facilities management function and the function of the university. Table 8 presented the result of the correlation coefficient computed for the variables of maintenance activities and the University function as regard the non-academic staff. Looking at the result in the table, it was found that there was a significant positive relationship between teaching as a University function and maintenance activities according to the non-academic staff. This inferred was based on the fact that the correlation coefficient computed for the test items of 0.745 was positive and high. This implied that as the maintenance activities improved, the capacity of the University to be able to function effectively as regard teaching was enhanced. Thus, in this regard, a 1% increase in the maintenance activities might cause approximately 74.5% improvement in the capacity of the University to be able to achieve its teaching function. More so, it was noted from the result in the table 8, that there was a significant positive relationship between research function of the University and maintenance activities as revealed by the non-academic staff since the correlation coefficient obtained for the test variable of 0.567 was positive and relatively average. This indicated that as the University intensified her efforts as regard maintenance activities, the University function regarding research was enhanced.

	Challenges/Const	Rating and Weighted Values						MAN	Don
S/N	raints	Strongly Agree	Agre e	Neutral	Disagr ee	Strongly disagree	V	V	k k
1	Inadequacy of funds	219	224	100	21	17	2,35 0	4.04 5	1 <sup>st</sup>
2	Lack of understanding of the concept (FM)	140	261	111	54	15	2,20 0	3.78 7	2 <sup>nd</sup>
3	Lack of Manpower (Skilled/Semi skilled)	136	160	88	134	63	1,91 5	3.29 6	3 <sup>rd</sup>
4	Composition of Management	144	124	99	121	93	1,84 8	3.18 1	4 <sup>th</sup>
5	Lack of equipment (Plant/machinery)	99	122	29	194	137	1,59 5	2.74 5	5 <sup>th</sup>

 Table 6: Challenges/Constraints of the Planning unit

Source: Field Survey, 2022

Table 7: Relationship	p between maintenance activities and functions of university as observed by academic st	aff

Academic staff									
	Teaching	Research	Reading						
r	0.268	0.315	0.092						
p- value Remark	0.030	0.040	0.030						

In this regard, one could say that a 1% increase in maintenance activities might cause 56.70% improvement in the University function of research. Thus. maintenance activities and research as the University function were positively related. Furthermore, it was found that there was a significant positive relationship between reading as the University function and maintenance activities as opined by the nonacademic staff. This statement was based on the fact that the correlation coefficient computed for the test items of 0.780 was positive with significant p-value of 0.019 that was less than the critical value of 5%. The implication of this was that as maintenance activities of the University improved, the University reading function might be enhanced greatly. Therefore, maintenance activities and the University reading function were directly correlated.

Table 9 below shows the perception of the students on the relationship between the facilities management function and the function of the university. Table 9 presented the result of the correlation coefficient computed for the perception of students on the relationship between maintenance activities and the University function. Looking at the result in the table, it was observed that there was a significant positive relationship between maintenance activities and the University function of teaching according to the students. This assertion was premised on the fact that the correlation coefficient computed for the test variables of 0.646 was positive and high with significant p-value of 0.023 that was

less than the critical value of 5%. This showed that as maintenance activities increased, the desired of the University to function effectively as regard teaching according to the students was enhanced. Thus, in this regard, a 1% increase in maintenance activities might cause 64.60% improvement in the University function of teaching. More so, it was found that there was a positive relationship between maintenance activities and research but not significant as shown by the students. This inferred was based on the fact that the correlation coefficient computed for the test items of 0.117 was positive but low with insignificant p-value of 0.765 that was greater than the critical value of 5%. The implication of this was that the students believed that it was not maintenance activities that were needed to enhance the University function of research. Thus, maintenance activities although contributed positively to research were not sufficiently significant on the variable. Furthermore, it was found that there was a significant positive relationship between maintenance activities and the University function of reading. This statement was due to the fact that the Pearson Correlation coefficient computed for the test variables of 0.507 was positive and with significant p-value of 0.036 that was less than the critical value of 5%. The implication of this was that a 1%increase in the University maintenance activities could cause 50.70% improvement in the effectiveness of the University achieving her reading function.

 Table 8: Relationship between maintenance activities and functions of university as observed by non-academic staff

Non - Academic staff									
	Teaching	Research	Reading						
r	0.745	0.567	0.780						
p- value	0.020	0.035	0.019						
Remark									

	Table 9:	Relationship	between mainte	nance activities	and functions	of university	y as observed b	y students
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Students				
	Teaching	Research	Reading	
r	0.646	0.117	0.107	
p- value	0.023	0.765	0.036	
Remark				

#### **Findings and Discussion**

Different segments of the University react variously community to the maintenance activities of the physical planning unit that is responsible for the upkeep of its physical facilities. The unit appeared to have set as its priority, maintenance activities that promote safety of buildings and the security of their Activities that will enhance contents. productivity such as improved aesthetics of the working environment and good sanitation have not received commensurate attention. Inadequate attention was noticed to have been paid to activities that promote relationships among the function of the university such as teaching, research, and reading. Facilities management being a relatively new area of study in the country, the management of the university is yet to fully grasp the enormous benefits that the institution stands to gain by incorporating this in its policy and management structure. From the finding, the directorate of physical planning still engages in maintenance practice of facilities management. In organizations where F.M. is given its pride of place, the director is a member of the management and the unit is given an autonomous. In this case the unit is allowed to submit a budget for the year, defend the budget, carry out the management of school facilities without any interference but with close monitoring by the audit unit, and they are allowed to give account of their activities at the end of the year. In JABU, the improper placement of the director in the hierarchy of the university is a challenge. The unit goes to the management anytime they need to spend every kobo. This is reflected in the responses of the respondent where inadequate funding ranked first in the challenged faced by the unit. The respondents perceived that the facilities in the university are poorly and inadequately managed as this represent the opinion of 67% of the respondents. The response time to maintenance, inadequate training and development of planning unit personnel, and lack of scheduled inspection ranked 1st,  $2^{nd}$ , and  $3^{rd}$  respectively as the causes of the maintenance problems in the university. Every section of the university community

i.e the academic staff, the non-academic staff and the students, perceived that there is relationship а significant between maintenance activities and functions of the University. In this case any failure in the maintenance activities (facility management) in the university will affect teaching, research and reading. The study revealed that the three segments of the university i.e the academic staff, nonacademic staff and the students observed that there was a significant positive relationship between maintenance activities and the University function of teaching, and reading. Students only differ in the case of the relationship of maintenance activities and university function of research with insignificant p-value of 0.765 that was greater than the critical value of 5%. The implication of this was that the students believed that it was not maintenance activities that were needed to enhance the University function of research. Generally the result has revealed that anything that affects the maintenance activities in the university will affect the function of the university. This is the reason why the Physical Planning Unit (i.e In-House facility management office) or The Outsourced Facility Management Company must be proactive in service delivery and not reactive.

#### Recommendations

The study recommends that there should be a synergy between the unit responsible for maintenance activities and the different sections of the community towards achieving the set objectives, mission and vision of the university. Periodic collation of the views of students, staff (academic and non-academic) and other stake holders such as the operators of commercial activities on the state of the built environment should be actively encouraged. Feedbacks on the impact of the maintenance activities on the stated functions of the university should indicate the necessary changes in focus of the unit responsible for maintenance. Finally. Maintenance unit either In-house facility management system or outsourced facility management company should be headed by experienced facility manager and have autonomy to function. The facilities manager's function should not only be limited to maintenance activities in the university, but he/she must be involved from the design stage through the construction stage of every development as this makes maintenance easy during the lifetime of any facility.

#### Conclusion

The maintenance activities in the university are yet to give more attention to various aspects of the university that are crucial to improving teaching, learning and research. A lot can still be done to improve the appearances of buildings physical (aesthetics) on the campus. The major challenge of facilities management is inadequate funding. The management needs to know that the practice of facilities management in the university is not a waste of money. The dilapidated natures of some facilities and un-kept classrooms, toilets, and other common spaces have negative impact on teaching, research and reading which are considered the main functions of the university. A sustainable facilities management practice in the university will enhance productivity and objectives of the institution.

#### References

- Barrett P and D Baldry D (2003) Facilities Management: Towards Best Practice (Oxford: Blackwell) 2nd Ed p. 298
- Barret, P. and Nere, J. (1993). Briefing for historic buildings, RICS Books, London.
- Beheiry, S. M. A., Chong, W. K., & Haas, C. T. (2006). Examining the business impact of owner commitment to sustainability. *Journal of construction engineering and management*, 132, 384.
- Boyd, T. (2007), "Evaluating the impact of sustainability on investment property performance", Pacific Rim Property Research Journal, Vol. 12 No. 1, pp. 255-271.

- Elmualim, A., Czwakiel, A., Valle, R., Ludlow, G. and Shah, S. (2009). The Practice of Sustainable Facilities Management: Design Sentiments and the Knowledge Chasm. Architectural Engineering and Design Management, 5, 91-102.
- Esenwa, F.O. (2000). "The cost implication of maintenance vis-à-vis Replacement." A Nigerian Experience: being a paper delivered at the National workshop on Maintenance.
- Hitchcock, D. E., & Willard, M. L. (2006). The business guide to sustainability: practical strategies and tools for organizations. London, UK: Earthscan Ltd.
- Kothari, C.R., (2004). *Research Methodology methods and Techniques*, 2<sup>nd</sup> ed., New Delhi: New Age International (P) Ltd.
- Mbamali, I. (2003). The Impact of Accumulation Deferred Maintenance on Selected Buildings of Two Federal Universities in the Northwest Zone of Nigeria. *Journal of Environmental Science* 5 (1) 77 – 83.
- Nielsen, S. B., & Galamba, K. R. (2010). Facilities Management - When Sustainable Development is Core Business. Paper presented at the European Facility Management Conference 2010, Madrid, Spain.
- Odiete, D.E. (1998). Application of facility management I the Nigerian Private sector, 28th Annual Conference of the Nigerian Institute of Estate Surveyors and Valuers, 9 - 2.
- Porter, T. B. (2008). Managerial applications of corporate social responsibility and systems thinking for achieving sustainability outcomes. *Systems Research and Behavioral Science*, 25(3), 397-411.
- Székely, F., & Knirsch, M. (2005). Responsible Leadership and Corporate Social Responsibility: Metrics for Sustainable Performance. European Management Journal, 23(6), 628-647.
- Wright, T. S. A., & Wilton, H. (2012). Facilities management directors' conceptualizations of sustainability in higher education. *Journal of Cleaner Production*, 31, 118-125. doi: 10.1016/j.jclepro.2012.02.030