

# STUDENTS' DISCERNMENT OF BUILDING MAINTENANCE PRACTICES IN BELL UNIVERSITY OF TECHNOLOGY, OTA, OGUN STATE

<sup>1</sup>Ogungbemi, A.O.; <sup>2</sup>Omunagbe, I.A.; <sup>3</sup>Salisu, H.A.; <sup>4</sup>Olaitan, P.A.; <sup>5</sup>King, O.R.;  
<sup>6</sup>Akingbade, O.H.;

<sup>1,2,5,6</sup> *Department of Estate Management and Valuation, Lagos State Polytechnic, Ikorodu Lagos, Nigeria,*

<sup>3</sup>*Department of Building Technology, Lagos State Polytechnic, Ikorodu Lagos, Nigeria,*

<sup>4</sup>*Department of Urban and Regional Planning, Lagos State Polytechnic, Ikorodu Lagos, Nigeria,*

## Abstract

*This study examined the students' discernment of building maintenance practices in the study area, to achieved this, two hundred and fifty respondents comprising majorly students' and staff of maintenance section were conventionally administered within the study area using descriptive statistics. The result of the findings found that majorly emergency inspection of building maintenance, direct labour was major practices, lack of regular planned inspection strategies culture and maintenance of building services in the campus scarcely necessitates before the commencement of every new session. Although they had maintenance section, but do not get more support and carry along in every maintenance operation.*

**Keywords:** Building, Building Maintenance, Students' Discernment, Bell University of Technology, Ota, Ogun State

## Introduction

Building maintenance management in country like Nigeria confront several due to poor service delivery, negligence, corruption, inadequate finance, poor maintenance plan and maintenance backlogs (Ajayi, et al, 2017; Albert, 2014). This problem is pronounced across different tertiary institutions in Nigeria irrespective of their ownership types. Study have established that maintenance of a building must be continuous operation in order to put building, infrastructure, and equipment in the best form for normal use (Akasah et al., 2009 cited in Awg Husaini & Tabassi, 2014), to ensures that the facilities is habitable for a life time. In the realization sustainability of facilities, maintenance of building is necessity for efficiency and effectiveness for strategic planning (Othuman Mydin, 2015; (Awg Husaini & Tabassi, 2014).

In Nigeria there is diverse infrastructural facilities across tertiary institutions in the country and this infrastructure must be frequently maintained to guarantee its optimal value over its lifespan (Alshehri, Motawa, & Ogunlana, 2015; Assaf, Hassanain, & Al-Nehmi, 2011). Building maintenance in public building is not a core service or business activity (Albert, 2014). As a result of this, building maintenance services in institutions across the country usually outsourced to specialty contractors.

Reasonably number of studies had mention in the literature of maintenance issues in across tertiary institutions in Nigeria. However, some had addressed the importance of maintenance in the country, while some make an effort to create a standardized maintenance contract by collecting essential information from a number of government offices around the kingdom after studying the present public building maintenance contract (Tongo, et al, 2020; Ajayi, et al., 2017). Others deliberated the difficulties faced by the maintenance industry and also the effect it has on the development in Nigeria,

In additional, some study recognized the main key factor affecting the importance given to building maintenance in projects, and discoursed the experience accumulated on maintenance practice and management in several fields in Nigeria. Among are (Ajayi, 2017; Siyanbola, 2013; Nyayeiemi, 2013; Odediran, 2012; Sani, 2012; Ali, 2009; Lateef, 2008; Adeyemi, 2005; Adenuga, 1999). All summarized factors like: effective building by laws and regulation; imported and locally produced materials have been used without any restriction or tests; use of rules of thumb and personal judgment; poorly written operational maintenance manuals; ineffective coordination between construction and maintenance group; lack of uniform maintenance etc.

In Nigeria, there is bridge of information about the importance of maintenance especially, among students'. Also, there was lack of uniform maintenance standards and specifications for maintenance activities. These leads to the basics of trouble stumble upon the problems during building maintenance operation in the study .Hence it is even more evident how necessary this research is to examines students knowledge of building maintenance in Bell University of Technology, Ota Ogun State, Nigeria.

## **2.0 Method of Data Collection**

Recce survey was made to the study area to get familiar with the students and composition/structure of the institution. However, data sources from two common means primary and secondary sources. The descriptive nature of research was used in order to gain information on students' discernment of building service maintenance practices in the Bells University of Technology, Ota, Ogun State, Nigeria. Systematic random sampling method was used to administered questionnaire to only two hundred and fifty (250) students and staff across the faculty concerned in the study area (see table 2.1).

**Table 2.1: List of Questionnaire to be Administrated**

<b>College</b>	<b>Department</b>	<b>No of Questionnaire's</b>
<b>Environmental Science</b>	URP	15
	ARC	15
	BLD	15
	QS	15
	SUR	15
	EST	15
<b>Engineering</b>	MECH	15
	CIV	15
	ELECT	15
<b>Management Science</b>	PRT	15
	ECONS	15
	MART	15
<b>Natural Science</b>	BIO	15
	PHY	15
	CHE	15
	FSC	15
<b>Total Questionnaire</b>	<b>10 (Works staff)</b>	<b>250</b>

The Data was analyzed through statistical package for social science (SPSS 20.0) descriptive

### 3.0 Major Findings

All data in this section was the result of field work, 2020

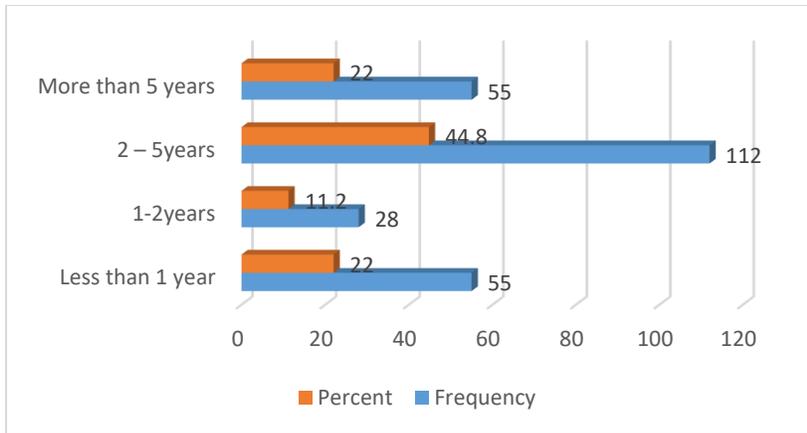


Figure 3.1: *Level/Years of Study of Respondents' Students'*

Presented in figure 3.1 below was the level/ year of study of respondents in the campus. From the table, it is clear that there are more students between 2-5years than other 44.8% of the total population, fresher had only 22%, students that are in their second year had 11.2% while student in the final years had 22%. This indicates that questionnaire was administered across level of study, which gives the opportunity to assess level of maintenance of building service within the campus.

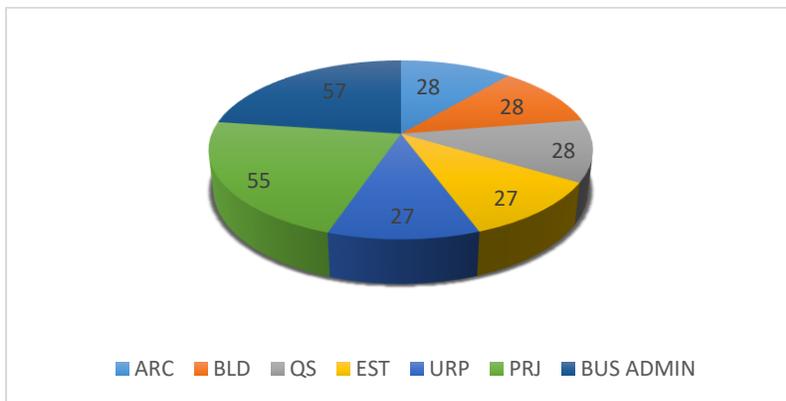


Figure 3.2: *Course of Study of Respondents'*

The result of findings on figure 3.2 shows that 11.2% of respondents were in the department of Architecture, building, and in the department of quantity survey respectively also, 10.8% of respondents were in department of estate and valuation and urban and regional planning department respectively, 22% were in project management department and the remaining 22.8% were in business administration department.

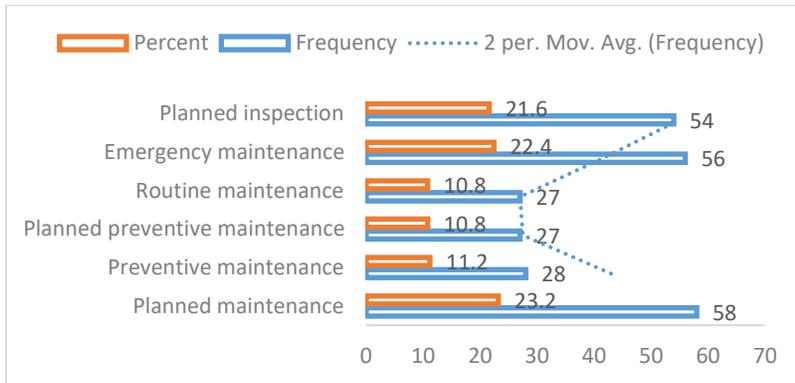


Figure 3.3: Respondents' Perceived Maintenance Mode in the Study Area

Study on Figure 3.3 present perceived mode of maintenance of building services in the study area. The findings found that 23.2% of respondents' agreed on planned maintenance, 11.2% preventive maintenance, 10.8% planned preventive maintenance and routine maintenance, 22.4% emergency maintenance, while the remaining 21.6% agreed on planned inspection. This indicates that difference mode of maintenance practice were used in the study area.

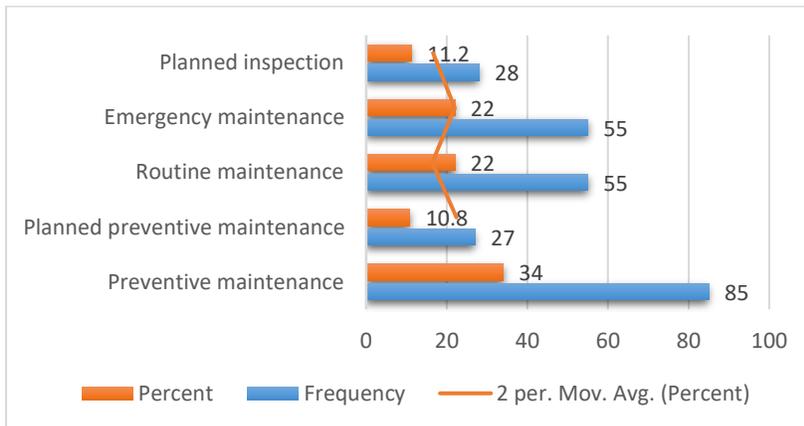


Figure 3.4. Respondents' Perceived Maintenance Strategies in the Study Area

On the issues related to perceived maintenance strategies, the study found that view of the respondent was diverse, 34% suggests preventive maintenance, 10.8% of respondents' suggests planned preventive maintenance, 22% suggests routine and emergency maintenance respectively and 11.2% of respondents' suggests planned inspection (figure 3.4).

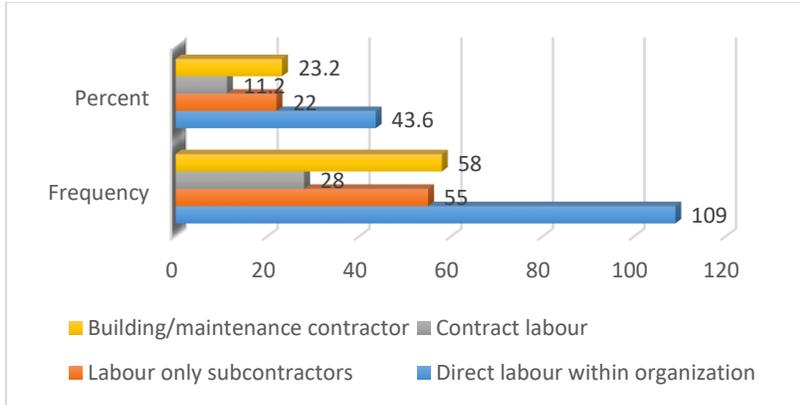


Figure 3.5: Respondents' Perceived Ways of Carrying out Maintenance in the study Area

The result of findings on figure 3.5 display findings on the ways of carrying out maintenance in the study area. The findings found that 43.6% of respondents' agreed on direct labour within organization, 22% suggests labour only subcontractors, 22% contract labour and 23.2% agreed on building and maintenance contractor.

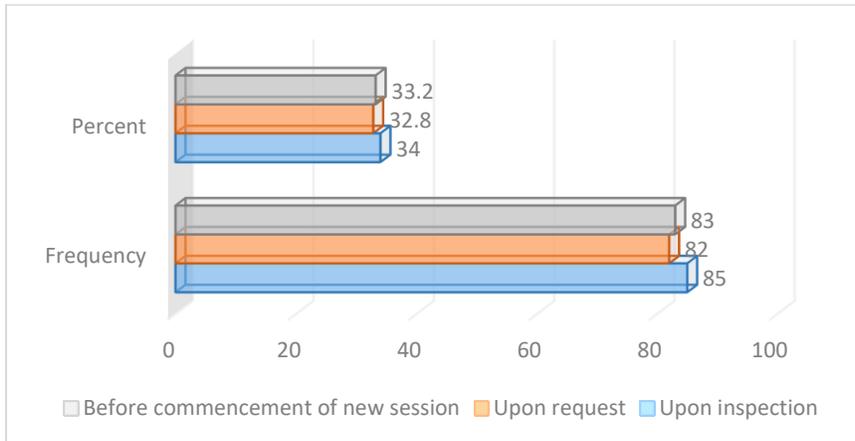


Figure 3.6: Respondents' Perceived of Factors that Necessitates Maintenance

As presented on figure 3.6 of factors that necessitates maintenance of building established that 34% of respondents' agreed that maintenance of building services was necessitates upon inspection, 32.8% of respondents' agreed maintenance is building services maintenance were necessitates upon request and 33.2% of respondents' agreed that maintenance of building services in the campus were necessitates before the commencement of every new session.

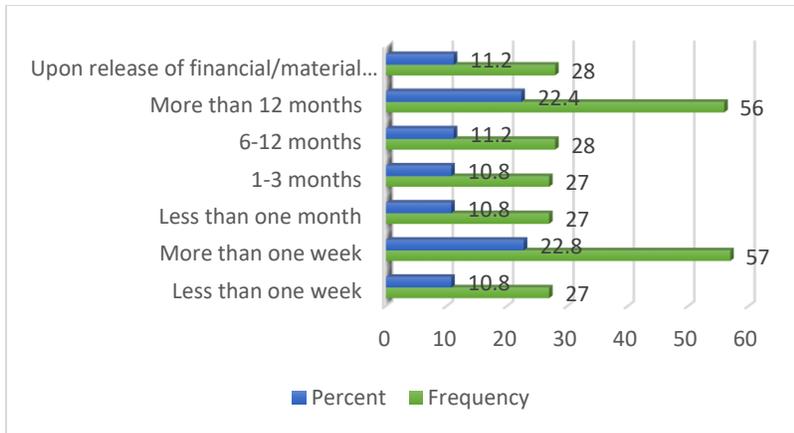


Figure 3.7: Respondents Perceived Average Response Time

The findings on table 4.1.7 depicts the average responses time before commence of maintenance. The result revealed that 10.8% of respondents out of the total population reported that average response time were less than one week, less than one month, between 1-3months respectively, 22.8% less than one month, 11.2% more than 12 months and financial/material resources respectively, while the remaining 22.4% of respondents agreed that the average response time were more than 12 months.

#### 4.0 Conclusion

Building maintenance is inevitability in every building facility. It is necessary to ensure the serviceability and safety of the constructed facilities. To improved and develop, building maintenance needs to identify and evaluate the current practice. Therefore, the aim of this paper is examines the problems confronting the maintenance in tertiary institution. In order to explore the current status of the building maintenance in the study area, 250 relevant to build environment professional majorly students were interviews with professionals who are working in operation and maintenance sections were conducted. Data was analyzed to identify the common building maintenance in the study area. The interviews also revealed that maintenance is building services maintenance were necessitating upon request, there is no regular planned inspection strategies culture and maintenance of building services in the campus scarcely necessitates before the commencement of every new session. Although they had maintenance section, but do not get more support and carry along in every maintenance operation.

#### References

- Abdul Lateef, O., Arazi, I., & Mohd Faris, K. (2011). Investigating building maintenance practices in Malaysia: a case study", *Structural Survey. Journal of Facilities Management.*, 29(5), 397-410. doi:10.1108/02630801111182420
- Adejimi, A. (2005). Poor Building Maintenance in Nigeria: Are Architects free from Blames? *ENHR International conference on "Housing: New Challenges and Innovation in Tomorrow's Cities" 29th June-3rd July.* Iceland: ENHR.

- Adenuga, O. (1999). Building Maintenance in Nigeria: Structural Deterioration. *Recognition Diagnosis of Causes and Remedies*(01), 5-25.
- Ajayi, S., Oyedele, L., Akinade, O., Bilal, M., Alaka, H., & Owolabi, H. (2017). *Optimising material procurement for construction waste minimization: An exploration of success factors*. Sustainable Materials and Technologies. doi:doi.org/10.1016/j.susmat.2017.01.001
- Albert, I. (2014). *Assessment of professionals' perception on materials management practices on construction sites in selected states in Nigeria*. Zaria Nigeria : Unpublished Master of Science Dissertation, Department of building, Ahmadu Bello University .
- Ali, A. (2009). Cost decision making in building maintenance practice in Malaysia. *Journal of Facilities Management*, 7(4), 298-306.
- Almarshad, A., Motawa, I., & Ogunlana, S. (2010). Knowledge management for public building maintenance in Kuwait. *Egbu, C. (Ed) Procs 26th Annual ARCOM Conference, 6-8 September* (pp. 877-886). Leeds, UK,: Association of Researchers in Construction Management.
- Alshehri, A., Motawa, I., & Ogunlana, S. (2015). The Common Problems Facing the Building Maintenance Departments. *International Journal of Innovation, Management and Technology*, 6(3), 243-237. doi:10.7763/IJIMT.2015.V6.608
- Assaf, S. ..., Hassanain, M. A.-H.-M., & Al-Nehmi, A. (2011). Factors affecting outsourcing decisions of maintenance services in Saudi Arabian universities. *Property Management*, 29(2), 195-212.
- Awg Husaini, A., & Tabassi, A. (2014). Performance Assessment of Maintenance Practices in Government Office Buildings: Case Study of Parcel E, Putrajaya. *MATEC Web of Conferences* (pp. 1-7). EDP Sciences.
- Kangwa, J., & Olubodun, F. (2003). An investigation into Home Owner Maintenance Awareness, Management and Skill-Knowledge Enhancing Attributes. *Structural Survey*, 21(2), 70-78.
- Lateef, O. A. (2008). Building maintenance management in Malaysia. *Journal of Building Appraisal*, 4(3), 207-214.
- Lívia, R.-M. (2011). Performance measurement for maintenance management of real estate. *Acta Polytechnica Hungarica*, 8(1), 161-172.
- Nyayiem, S. K. (2013). *Factors affecting housing maintenance management cost in kakamega municipality, Kenya*. Nairobi: Project report submitted in partial fulfillment for the requirements for the award of the postgraduate diploma in housing administration of the University of Nairobi.
- Odediran, S., Opatunji, O., & Eghenure, F. (n.d.). (2012) Maintenance of residential buildings: Users' practices in Nigeria. *Jornal Emerging Tr in Econ Manage Sci.*, 1-16.
- Oladapo, A. (2006). The Impact of ICT on Professional Practice in the Nigerian Construction Industry. *The Electronic Journal on Information Systems in Developing Countries*, 24(2), 1-19. Retrieved from <http://www.ejisdc.org>

- Olanrewaju, S., Babatunde, O., & Anifowose, O. S. (2015). The challenges of building maintenance in Nigeria: (a case study of Ekiti state). *European Journal of Educational and Development Psychology*, 3(2), 30-39.
- Olubodun, F. (2001). A multivariate approach to the prediction of maintenance needs in public housing: the tenant dimension. *Structural Survey*, 19(2), 133-41.
- Olubodun, F., & Mole, T. (1999). Evaluation of defect influencing factors in public housing in the UK. *Structural Survey*, 17(3), 170-178.
- Sani, S. (2012). Determinant factors in development of maintenance culture in managing public asset and facilities. *International Cong. Interdisciplinary Business Social Science*(65), 827-832.
- Siyanbola, A., Ogunmakinde, O., & Akinola, A. (2013). *Analysis of the Factors Affecting Building Maintenance in Government Residential Estates in Akure, Ondo*.
- Zul-Atfi, I., & Narimah, K. (2013). Maintenance Management Practices for Building Maintenance: Case Studies. *2nd International Conference on Technology Management , Business and Entrepreneurship* (pp. 5-17). Mahkota Hotel Melaka Malaysia: ICTMBE 2013.