

Professional Perception of Factors Militating Against Building Services Maintenance among Tertiary Institutions in Lagos Megacity

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Abstract

The call for sustainability in all spheres of life is more noticeable in the construction industry. To avoid this, the study examines the professional perception of factors militating against building services maintenance among tertiary institutions in Lagos megacity of Nigeria, with a view of providing pertinent information to the policies makers and general public. To achieve this, two hundred and fifty (250) questionnaires were systematically administered among built environment professionals across the institution in the study area.

Index terms— professional perception, building maintenance, building waste, tertiary institutions,

1 Introduction

ost public and private buildings in Nigeria are faced with maintenance challenges resulting in deteriorations and ultimate defects of various degrees (Olanrewaju, Babatunde, & a Anifowose, 2015). Building maintenance is the combination of technical and administrative actions to ensure the items and elements of a building in an acceptable standard to perform its required function (Nyayemi, 2013). Several studies had argued that many people do not understand the importance or significance of building maintenance and its management, in particular the realization that the efficiency of a building maintenance system contributes to the income of the company's owning or renting the building (Emma and Syahrul, 2009).

The building maintenance was significant to the economy not only because of the scale of expenditure involved, but also to ensure the nation's stock of buildings (Seeley, 1987 and Nyayemi, 2013). From a Nigerian situation, the responsiveness on repair and maintenance works come to be more important as the development plan allocation for repair and maintenance works increased speedily (Adejimi, 2005 and Adenuga, 1999). Seeley (1987) documented that building maintenance is imperative with the prime aim, to reserve a building in its initial state. Also, the implementation of building maintenance permits the building to function its purpose efficiently and effectively. There are several main purposes to maintain buildings as stated below: retaining investment value; maintaining the building in an acceptable condition and required standard; presenting a good appearance of the building; generating income for building owner and surrounding activities; and conserving historical and architectural values of the building.

The Quality of maintenance activities often affects the overall status of the buildings (Nyayemi, 2013). The quality is subjective by the amount of budget for each task. Appropriate resources particularly finance is required for maintenance work to have good maintenance actions and to sustain the required standards of buildings services. The poor maintenance practices are neither cost-effective nor optimum, and often cause a lot of problems, such as defective buildings, poor buildings functionality and others.

Review of works of the literature shows that several studies have been conducted on the maintenance of residential buildings across Nigeria (Olanrewaju, et al, 2015; Siyanbola, et al, 2013; ??dediran, et al, 2012; Sani, 2012; Adejimi, 2005; Adenuga, 1999; Faniran, 1999). But little or no literature has been documented on the factors affecting maintenance management of tertiary institution buildings in Lagos megacity. Most of the institutional

housing (buildings') have been in bad shapes, lack maintenance and refurbishment. While others have been obsolete. The study, therefore, sought to establish the factors militating against building maintenance across tertiary institutions in Lagos from a professional point of view.

2 II.

3 Method of Data Collection

Yaba College of Technology, Lagos State Polytechnic, Ikorodu, Caleb University, Imota, Adeniran Ogunsanya College of Education, and Michael Otedola College of Primary Education, Epe, to identify rank factors militating against building services maintenance within the study area. Two hundred and fifty (250) questionnaires were randomly administered among professionals' staff in works and service, Technology, Science and Environmental related courses in all the selected institutions. The rank and percentage tool generator were used to generate an output table containing a ranking of each value in the dataset.

4 III.

5 Discussion of Finding

The professional perception factors militating against building services maintenance among tertiary institutions were determined using rank and percentile tool generator. The result of the output table containing ordinal and a percentage ranking of each value in the dataset. The rank and percentile tool on a show the orderly arrangement of the observations from largest to the smallest and generate the percentile values.

The rank parameter identified as the challenges militating against sustainable building services maintenance in the study area in the following rank order of importance, very highly severe (1), strongly severe (2), very severe (3), mostly severe (4), Severe (5). The result of percentile and ranking presented on table 3.1 established that amongst the parameter militating against sustainable services maintenance management in the campus, non-development of potential risks and contingency plan, inadequate storage facilities and altitude of workers and underutilization of available resources were ranked highest with 87.50% concurrently, next to this are issues on nonimplementation of an effective maintenance programme to make equipment more reliable and non-availability of proper tools to maintenance personnel to repair the faulty equipment which ranked 75.00% respectively.

6 IV. Conclusion and Recommendations

Building maintenance factors like nondevelopment of potential risks and contingency plan, inadequate storage facilities and altitude of workers, and underutilization and non-utilization of available resources were found as the highest and leading factors militating against building service maintenance among tertiary institutions in Lagos megacity. Based on this, the following recommendations were proposed: i. Construction industry professional's builders, Civil engineers, Architects etc. must be included in all the stages of the planning, design, construction and, management processes. ii. The materials to be used for construction must be tested, retested and confirmed authentic by qualified professional. iii. Provisions of adequate storage for workers, iv. Sustainable utilization of available resources in a way that will yield maximum output.

3

1: Respondents' Ranking of Factors Militating Against Sustainable Building Services Maintenance S/NChallenges Militating				Means Rank	Per cent
1	Non-development of potential risks and contingency plan	3.33	1		87.50%
2	Inadequate storage facilities and altitude of workers	3.33	1		87.50%
3	Underutilization and non-utilization of available resources.	3.33	1		87.50%
4	Non implementation of effective maintenance programme to make equipment more reliable	3.11	4		75.00%
5	Non-availability of proper tools to maintenance personnel to repair the faulty equipment	3.11	4		75.00%
6	Lack of engagement of maintenance personnel with necessary skills knowledge and technical experience to execute work maintenance ethics	3.01	6		56.20%
7	Lack of record keeping of installation and maintenance system	3.01	6		56.20%
8	Lack of allocation of maintenance budgetary resources to aid adequate planning	3.01	6		56.20%
9	Non implementation health and safety regulation in relation to maintenance of building services amenities	2.79	9		50.00%
10	Non consideration of technological and financial perspective	2.77	10		37.50%

Figure 1: Table 3 .

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- 78 [Olubodun ()] 'A multivariate approach to the prediction of maintenance needs in public housing: the tenant
79 dimension'. F Olubodun . *Structural Survey* 2001. 19 (2) p. .
- 80 [Adejimi (2005)] A Adejimi . *Poor Building Maintenance in Nigeria: Are Architects free from Blames? ENHR*
81 *International conference on "Housing: New Challenges and Innovation in Tomorrow's Cities*, (Iceland) 2005.
82 29th June-3rd July. ENHR.
- 83 [Siyanbola et al. ()] *Analysis of the Factors Affecting Building Maintenance in Government Residential Estates*
84 *in Akure*, A Siyanbola , O Ogunmakinde , A Akinola . 2013. Ondo.
- 85 [Seeley ()] *Building Maintenance*, I Seeley . 1987. New York, NY: Palgrave. (2nd ed.)
- 86 [Adenuga ()] *Building Maintenance in Nigeria: Structural Deterioration. Recognition Diagnosis of Causes and*
87 *Remedies*, O Adenuga . 1999. p. .
- 88 [Sani ()] 'Determinant factors in development of maintenance culture in managing public asset and facilities.
89 International Cong'. S Sani . *Interdisciplinary Business Social Science* 2012. (65) p. .
- 90 [Olubodun and Mole ()] 'Evaluation of defect influencing factors in public housing in the UK'. F Olubodun , T
91 Mole . *Structural Survey* 1999. 17 (3) p. .
- 92 [Nyayiemmi ()] *Nairobi: Project report submitted in partial fulfillment for the requirements for the award of the*
93 *postgraduate diploma in housing administration of the*, S K Nyayiemmi . 2013. Kenya. University of Nairobi
94 (Factors affecting housing maintenance management cost in kakamega municipality)
- 95 [Emma and Syahrul ()] 'Personnel characteristics of maintenance practice: a case of high-rise office buildings in
96 Malaysia'. M Emma , N Syahrul . *Journal of Sustainable Development* 2009. 2 (1) p. .
- 97 [Nana et al. ()] 'Public infrastructure maintenance practices in Ghana'. Edmund Nana , K N Tindi , S Lydia ,
98 T Oswin , AA . 10.4172/2315-7844.1000234. *Review Public Administration Management* 2017. 2 (3) p. .
- 99 [Olanrewaju et al. ()] 'The challenges of building maintenance in Nigeria: (a case study of Ekiti state)'. S
100 Olanrewaju , O Babatunde , O S Anifowose . *European Journal of Educational and Development Psychology*
101 2015. 3 (2) p. .
- 102 [Faniran ()] 'The Role of Construction Project Planning in Improving Project Delivery in Developing Countries:
103 Case Study of the Nigerian Construction Industry. the 1st conference of CIB TG 29 on construction in
104 Developing Countries: Construction Industry Development in the New Millenium'. O Faniran . [http:](http://buidnet.csir.co.za/cdcproc.docs/1st_proceedings.html#key)
105 [/buidnet.csir.co.za/cdcproc.docs/1st_proceedings.html#key](http://buidnet.csir.co.za/cdcproc.docs/1st_proceedings.html#key) *The Pan Pacific* 1999.