EVALUATION OF MAINTENANCE MANAGEMENT PRACTICE IN BANKING INDUSTRY IN LAGOS STATE, NIGERIA

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ABSTRACT

The study focused on maintenance management practice in banking industry in Lagos state, Nigeria. It assessed the operational state of bank buildings, the factors affecting maintenance management of bank buildings, the maintenance management strategy used in maintaining bank buildings and the adequacy of funds available for maintenance management of bank buildings within the study area. In achieving these objectives, opinions of maintenance officers and users of randomly selected banks were sampled through structured questionnaires. The data collected were analyzed using descriptive and inferential statistics. The analysis revealed the operational state of bank buildings in Lagos State as good, there is no significant difference in the perception of the maintenance staff and users as to the operational state. However, there is significant difference in the operational state of the old and the new generation bank buildings as the study reveals that the components and services of the buildings of the new generation banks are in better operational state than those of the old generation bank buildings. Maintenance officers ranked attitude of users and misuse of facilities as the most significant factor affecting maintenance management of bank buildings while users of the buildings ranked lack of discernable maintenance culture in the country as the most significant factor responsible for poor maintenance management of bank buildings. The perception of the maintenance staff and users of bank buildings as regards factors responsible for poor maintenance management of bank buildings are significantly different. The study recommended proactive measures to keep hypothesized factors under check in other to overcome the prevailing maintenance problems of bank buildings. Top management are to provide adequate funding for the running of maintenance operations and such funds should be properly monitored to ensure that it is judiciously utilized.

Keywords: Bank Building, Funding, Maintenance, Maintenance Management, Maintenance Strategy and Operational State.

1.0   INTRODUCTION

Banks in Nigeria spend billions of naira in putting up buildings in order to cope with the exponential growth and expansion that has attended the industry in the last few years. Statistics shows that the Nigerian banking sector's asset base grew by approximately 227% between 2003 and 2007 [13]. These existing structures together with the structures to be erected in the nearest future, including that of the 716 micro finance banks already licensed create the needs for maintenance. Although much can be done at the design stage to reduce the amount of subsequent maintenance work, all elements of buildings deteriorate at a greater or lesser rate depending on materials, method of construction, age, environmental conditions, usage of building, and method of design and maintenance management of the building [1]. Assets such as buildings are a key resource for all types of organizations, including the banking sector. In the last few years, effects of the recapitalization of the banks in Nigeria has increased attention as the stock of new buildings costing billions of naira are being put into operation. This attention is due largely to the

recognition of the significant contribution property makes to ultimate success or failure of a business and recognition of strategic importance of property to a company's financial structure.

However, in spite of millions of Naira spent to erect all these buildings, they are left as soon as commissioned to face premature but steady and rapid deterioration, decay and dilapidation.

Property resource, in the same way as human, financial and information resources contribute to the success of these organizations and need to be effectively and efficiently managed. These assets have to be professionally managed to ensure that the asset value is maintained

1.1   STATEMENT OF THE PROBLEM

Most of the bank buildings are in deplorable conditions of structural and decorative disrepair. Series of research have been carried out on factors responsible for the poor maintenance management of public, private housing estates and offices in Nigeria but only scant attention has been given to the evaluation of the maintenance management practices adopted in the implementation of maintenance programmes for banks and financial institutions buildings. There is therefore a need to establish and evaluate the strategies for the maintenance management practice of bank buildings using appropriate analysis.

1.2   AIM

To evaluate the maintenance management practice of the banking industry in Nigeria with a view to recommending most efficient maintenance management strategy.

1.3   OBJECTIVES

1.   To assess the operational state (physical-functional condition) of bank buildings in Lagos state as carried out by the maintenance department.
2.   To find out the maintenance management strategy used in maintaining bank buildings in Lagos State.

1.4   RESEARCH HYPOTHESES

➢   There is no significant difference in the perception of the maintenance staff and the users as to the operational state of bank buildings in Lagos state.
➢   There is no significant association between the maintenance strategy deployed by the maintenance department and the operational state of bank buildings in Lagos State.

2.0   LITERATURE REVIEW

It is highly desirable but hardly feasibly to produce maintenance free buildings. Much work can however be done at the design stage to reduce the amount of subsequent maintenance work that will be done during the operation and maintenance life of a building. [2] sees the main purposes of maintaining buildings as retaining its value of investment, maintaining the building in a condition in which it continues to fulfill its function, and presenting a good appearance. [6] developed a more specific definition of building maintenance as "The regular inspection of all parts of a building and the execution of work necessary to keep the structure, finishes and fittings in a proper and acceptable state of repair, including decoration, both internally and externally". [5] on their part see maintenance actions as technical and economic that tries to raise the quality level

of a building element and/or restore it to the initial performance level in accordance with a certain requirement. [11] discloses that a prime maintenance is to preserve a building in its initial state, as far as practicable so that it effectively serves its purpose.

Building maintenance work is done to ensure that the building is in safe, healthy condition in accordance with specified standards. Maintenance of the built environment impacts on the whole nation. The conditions of the surroundings in which we live and learn, are a reflection of the nation's well being. 'The condition and quality of buildings reflects public pride or indifference, the level of prosperity in the area, social values and behavior and all the many influences both past and present which combine to give a community its unique character' [9].

An effective maintenance management system might be characterized as the product of prudence, of the sentiment that 'a stitch in time saves nine'. Good maintenance management systems are essential for economically viable and operationally safe buildings [10].

Historically, in both public and the private sectors, the maintenance is seen as an avoidable task which is perceived as adding little to the quality of the working environment, and expending scarce resources which would be better utilized [7]. The financial consequences of neglecting maintenance is often not only seen in terms of reduced asset life and premature replacement but also in increased operating cost and waste of related and natural and financial resources [3]. This is why property managers should give maintenance a high priority in their day to day activities [8].

Management of any process involves assessing performance, and maintenance management of buildings is no exception. In order for any maintenance manager to measure performance and set priorities, the organizational needs have to be considered i.e. the function and performance of buildings and their appropriate standards will be dependent on the user's perception and their primary needs [4]. Performance of bank buildings and their component depends to a large extent on continuous and planned periodical maintenance, which challenges owners and facility managers to institute precise planning based on a well-structured maintenance programmes [12]. Despite the ever-growing need for lower operational costs, facilities managers must ensure that facilities are constructed and maintained without compromising safety.

3.0   METHODOLOGY

This research covers bank buildings in Lagos State, Nigeria. A list of the twenty-two (22) banks with operations in Lagos State was obtained from the portal of the Central Bank of Nigeria. From this comprehensive list of banks, a selection of ten (10) banks was done using the simple random sampling method. The simple random sampling method was chosen so as to give equal chances to all the listed banks. Two categories of questionnaires were designed for this study and were directed to the maintenance staff and the users of these selected bank buildings respectively.

A total of eight (8) questionnaires were sent out to each of the ten selected banks, out of which four of the questionnaires were directed to the maintenance staff and four questionnaires were directed to the users of each of the ten bank buildings respectively. Thus a total of eighty (80) questionnaires were sent out to the ten selected banks of which a total of fifty-seven (57) questionnaires were completed and used for the analysis.

3.1   METHOD OF DATA ANALYSIS

The data collected through structured questionnaires were coded and assigned variables for easy handling through computer analysis using statistical package for social sciences (SPSS 15.0) so as to obtain a comprehensive and accurate analysis in both the descriptive and inferential statistics as applicable.

4.0   RESULTS AND DISCUSSIONS

Below are the analysis and the results of data collected from the field survey as extracted from the data collection instruments (Questionnaire A and B respectively).

Table 1: Number and rate of response by Maintenance Staff and Users

Category	Questionnaires sent out	Responses	% of Response
Maintenance staff	40 (50.0)	30 (75.0)	52.6
Users	40 (50.0)	27 (67.5)	47.4
Total	80	57	100.0

Table 2: Bank names and addresses (Maintenance staff and users)

Bank names	Number of questionnaire sent out		Total questionnaires received
	Maintenance Staff	Users	
UBA	4	4	6
WEMA	4	4	8
First Bank	4	4	6
Union	4	4	3
GTB	4	4	4
Stanbic IBTC	4	4	6
Skye	4	4	4
Access	4	4	6
Diamond	4	4	6
Zenith	4	4	7
Total	40	40	57

Source: (Field survey 2009)

Table 3: Category of respondent in the maintenance department

Category	Frequency	Percentage
Junior	15	51.7
Intermediate	14	48.3
Total	29	100.0

Source: (Field Survey 2009)

Table 3 shows a breakdown of the category of the respondents in the maintenance department, it reveals that 51.7% of the maintenance department staff are junior staff while 48.3% of the maintenance staff are at the intermediate category.

Table 4: The departments of maintenance staff in the bank

Department	Frequency	Percentage
Maintenance	13	43.3
Projects	5	16.7
Facilities	7	23.3
Premises and Property	5	16.7
Total	30	100.0

Source: (Field Survey 2009)

Table 4: shows the breakdown of the departments of the maintenance staff in the banks under study. The analysis shows that 43.3% of the respondents are in the maintenance department,

16.7% are in the projects department, 23.3% are in the Facilities department, 16.7% are in the Premises and property department.

Table 5: Experience of maintenance staff in the bank

Years of experience	Frequency	Percentage
Less than 5 years	24	80.0
6-10 years	6	20.0
Total	30	100.0

Source: (Field Survey 2009)

In table 5, the analysis shows that only 20% of the respondents have more than five (5) years experience of working as maintenance staff.

Table 6: Approximate number of full time employees in the maintenance department

Number of full time employees	Frequency	Percentage
1-5	1	3.3
6-10	11	36.7
11-15	9	30.0
16-20	6	20.0
21-25	3	10.0
Total	30	100.0

Source: (Field Survey 2009)

Table 6 shows the breakdown of the number of full time employees in the various maintenance departments of the banks in Lagos State.

Table 7: Maintenance staff perception of the condition of bank building

Building condition	Frequency	Percentage
Very poor	4	13.3
Poor	1	3.3
Good	10	33.3
Very good	15	50.0
Total	30	100.0

Source: (Field Survey 2009)

Table 7 shows that 13.3% and 3.3%, of the respondents in the maintenance department of the bank buildings in Lagos State perceived the overall condition of the buildings, as very poor and poor respectively.

Operational states of building elements and services as perceived by maintenance staff and the users of bank buildings in Lagos state, using the scale; (1) Very Bad (2) Bad (3) Average (4) Good (5) Very Good.

From the analysis, the following results were obtained;

Table 8: Operational state of building elements as perceived by users and maintenance staff of banks

Element	Mean	Remark
Structural elements (beams, columns, upper floor slabs and stairs)	4.6	Very good
Walls (external and internal walls)	4.26	Good
Finishes (wall finishes, floor finishes and ceilings)	3.83	Good
Widows	4.35	Good
Doors (external and internal doors)	4.03	Good
Roofs	4.33	Good
Services(sanitary appliances, building service equipment, disposal installation, water, ventilation, electrical, gas, lifts, protection installation, drainages, external services)	4.03	Good
Fittings and furniture	3.78	Good
Sanitation of the environment	3.93	Good

Source: (Field Survey 2009)

Table 9: The ranking of hypothesized factors responsible for poor maintenance management of bank buildings in Lagos state.

Hypothesized factors	Maintenance staff		Users	
	Mean	Rank	Mean	Rank
Attitude of users and misuse of facilities	4.30	1	4.70	2
Persistent breakdown through indiscipline and ignorance factors of building users	4.07	2	4.70	3
Insufficient fund for maintenance job	3.90	3	2.11	18
Natural deterioration due to age and environment	3.83	4	3.46	5
Inefficient inventory system	3.83	5	-	20
Inadequate training and development of personnel	3.53	6	3.15	6
Procurement of spare parts becomes difficult due to unavailable fund	3.50	7	2.11	17
Inflation of the cost of maintenance by the operatives	3.37	8	3.15	8
Lack of skilled manpower to maintain work in buildings designed and constructed by expatriates	3.25	9	2.93	10
Frequent shortage of materials and spare parts due to absence of efficient inventory system	3.14	10	2.93	11
Lack of skilled personnel in maintenance department	3.07	11	2.63	12
No effective maintenance due to de-emphasize in training, retraining and continue education	2.93	12	3.04	9
Use of poor quality component and materials	2.93	13	2.33	15

Hypothesized factors	Maintenance staff		Users	
	Mean	Rank	Mean	Rank
Inadequate/inappropriate maintenance of facility plant and equipment for maintenance operations	2.87	14	2.15	16
Complexity of design and non involvement of maintenance experts at the design stage	2.73	15	2.48	14
No long term arrangement for the supply of essential parts for replacement	2.73	16	3.15	7
Lack of successful maintenance programme by the maintenance department	2.67	17	2.00	19
Reluctance of some establishment to innovation supports	2.57	18	3.69	4
Absence of a form of planned maintenance programmes	2.47	19	2.63	13
Lack of discernable maintenance culture in the country	2.20	20	4.70	1

Source: (Field Survey 2009)

From the analysis, the maintenance staff rates the attitude of users and misuse of facilities as the most significant factors responsible for poor maintenance management of bank buildings.

On the contrary, the users rate lack of discernable maintenance culture as the most significant factor responsible for poor maintenance management of bank buildings.

In summary the following are the five most significant factors that affect maintenance management of bank buildings as ranked by the respondents:

Table 10: Top five hypothesized factors responsible for poor maintenance management of bank buildings in Lagos state.

Maintenance Staff	Users
Attitude of users and misuse of facilities	Lack of discernable maintenance culture in the country
Persistent breakdown through indiscipline and ignorance factors of building users	Attitude of users and misuse of facilities
Insufficient fund for maintenance job	Persistent breakdown through indiscipline and ignorance factors of building users
Natural deterioration due to age and environment	Reluctance of some establishment to innovation supports
Inefficient inventory system	Natural deterioration due to age and environment

4.1   TEST OF RESEARCH HYPOTHESES

Test of hypothesis 1

H_O = There is no significant difference in the perception of the maintenance staff and the users as to the operational state of bank buildings in Lagos State.

H_1 = There is significant difference in the perception of the maintenance staff and the users as to the operational state of bank buildings in Lagos State.

From the computation for hypothesis 1, the significance value for the **t** test was found to be **0.16.**

Decision: since **0.16>0.05** H_O (null hypothesis) is accepted.

Test of hypothesis 2

$H_O =$ There is no significant association between the maintenance strategy deployed by the maintenance department and the operational state of bank buildings in Lagos State.

$H_1 =$ There is significant association between the maintenance strategy deployed by the maintenance department and the operational state of bank buildings in Lagos State.

From the computation for hypothesis 4, the significance value for the Chi-square test was found to be **0.26**.

Decision: since **0.26>0.05** H_O (null hypothesis) is accepted.

5.0 CONCLUSIONS

The study showed that the operational state (physical-functional condition) of bank buildings in Lagos State was **good**, the mean been **4.0**. The analysis however revealed that there is significant difference in the operational state of the old generation banks when compared to the operational state of new generation bank buildings. The study revealed that the components and services of the buildings of the new generation banks are in better operational state than those of the old generation bank buildings.

As for the factors responsible for poor maintenance management of bank buildings in Lagos State, a number of hypothesized factors were identified with the degree of the significance of each of these factors established based on the responses obtained from the field survey as presented in the previous chapter of this research work. However, the two groups of respondents, the maintenance staff and the users have relative agreement on the degree of significance for all of the hypothesized factors except for the significance of lack of discernable maintenance culture in the country, which was ranked by the users as the most significant factor responsible for poor maintenance management of bank buildings whereas the maintenance staff ranked it as the least significant factor. Consequently, the research showed that the association between the perception of maintenance staff and users of bank buildings on the factors responsible for poor maintenance management is very strong. The information gathered in the course of this research work revealed that 97% of the maintenance departments of the bank buildings in Lagos State adopts wide managerial span of control as the organizational structure. This revelation depicts that the maintenance management of bank buildings in Lagos State has not given a chance to the use of the narrow span of control (ns alterative type of organizational structure) which may result in better coordination, supervision and monitoring of maintenance organization in banks and consequently a better overall performance of the department.

Furthermore, it was gathered that the maintenance departments of bank buildings deploy some form of preventive maintenance strategy, although the comprehensiveness and viability of such strategy was beyond the scope of this research work.

Finally, this research revealed that the level of funding of the maintenance department of banks is merely sufficient and therefore requires a thorough review by the top management to ensure that these buildings do not deteriorate prematurely resulting from poor or inadequate funding.

5.1 RECOMMENDATION

Strategies should be formulated by those saddled with the responsibility of maintenance management of bank buildings in line with systems and components of bank buildings to ensure that bank buildings remain operational in functional and safe manner. A viable preventive maintenance schedules (covering all major components and systems of bank buildings) should

prepared and the implementation of such schedule should be absolute. This will foster pro-activeness in the maintenance management of systems and installations of the buildings and facilities in the banking industry, and will consequently preserve the huge investment of the banks in erecting the buildings and at the same time guarantee return on investment.

This study revealed that the funding of the maintenance department of bank buildings in Lagos State is **average** (with a mean value of 3.15). The adequacy of this level of funding for the maintenance needs of these buildings in the near future is doubtful as most of the buildings are relatively new at the moment with minimal breakdown arising from age and use of the facilities. Therefore, provision for better funding of the maintenance department should be made in subsequent years when systems and components of bank buildings begin to age and deteriorate at an increased rate. Such funds should however be monitored to ensure that they are judiciously utilized by the maintenance department.

Finally, maintenance management staff of banks should ensure that the listed hypothesized factors are kept within check as this will definitely assist them in planning and executing maintenance programmes, as well as overcome the prevailing maintenance problems of bank buildings.

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