An Assessment of the Impact of Property Maintenance on Property Rental Values in D-Line Port Harcourt, Nigeria

Ernest Usua Effiong
Research Student, Department of Etate Management, Rivers State University, Port Harcourt, Nigeria
Ebiwari Wokekoro
Lecturer, Department of Etate Management, Rivers State University, Port Harcourt, Nigeria

Abstract:
The study investigates the impact of property maintenance on property rental values in Port Harcourt: A case study of D/line Housing. The population of the study consists of 119 firms of estate surveyors and valuers practicing in Rivers State and 230 tenants occupying blocks of 2 and 3 bedroom flats in the study area. This was selected through purposive sampling techniques with sample size of 238 respondents using the Taro Yamane formular. Three research questions were answered. Data were collected through the administration of a questionnaire. A total of 238 questionnaires were distributed to the sample groups, out of which 210 were retrieved representing 89% response which was found useful for the analysis. Data obtained were analyzed using percentage, mean, and chart. The result from the analysis showed that preventive maintenance practices are adopted in property maintenance to enhance its value. The study further revealed that lack of sufficient funds is the most prevalent factor that affects property maintenance. The mean from the study also revealed that roof is the most significant element that will impact on property rental values. The study also revealed that rental values of well-maintained properties are higher than the poorly maintained properties. The study concludes that maintenance of property requires attention at the highest level. Therefore, maintenance of properties should not be neglected by owners and users. The study recommends that preventive maintenance practices should be adopted by property managers to ensure adequate preservation of the building and its elements to enhance its values. Some percentage of rent should be set aside annually to prevent lack of sufficient fund to carryout maintenance.

Keywords: Impact, maintenance, rental values, residential properties

1. Introduction

Building maintenance is an important program for the sustainability of infrastructural development. It plays a central role among other activities in the building operations (Zulkarnain et al, 2011) cited in Baba, and Buba, (2013). Maintenance has been defined by various authors. Maintenance according to British Standard (BS 3811) (1984) is the combination of all technical and associated actions intended to retain an item or restore it to a state in which it can perform its required function. Maintenance is also seen as work carried out to keep, restore or improve every part of a building, its services and surrounds to a currently acceptable condition (Williams, 1994). Smith (2003) stated that maintenance is defined to keep the building in its existing state and in high quality operating condition and preserve. The definitions of the maintenance are always related to the building, to the extent that the building shall be good enough to allow the occupants to use their functions, because it is a source of value that design to provide necessary services of daily activities (Lateef, 2010). Maintenance has to perform effectively in buildings due to building cannot remain zero defects throughout their lifespan. The need for maintenance will be intensified, especially for aged buildings because of the need to replace or repair more components which have reached their useful lifespan. Therefore maintenance is considered as an essential activity where it can provide support to the buildings lifespan and maintains the value of asset of the country (Yong and Sulieman, 2015). In general, the main objectives of building maintenance are to retain a building in its original state, as far as possible to serve it function wisely to an appropriate condition (Al-zubaidi etal, 1997). The task of the maintenance includes servicing, inspection, replacement, renovation and overhaul. Work carried out in expectation of failure is referred to as preventive maintenance, and those carried out for restoring after failure is referred to as corrective maintenance (Baba and Buba, 2013). It is well-known fact that the primary objective of building maintenance is to preserve buildings in their initial functional, structural and aesthetic states (Adejimi, 2015). Maintenance program in Nigeria for instance, according to Ahmed (2000) and Odediran et al, (2012) has not received much attention in the past as the emphasis is on the development of new properties. Kunya et al, (2007) also observed that there is apparent lack of maintenance culture in Nigeria, and that emphasis is placed on the construction of new buildings and neglecting the aspect of maintenance which commences immediately the builder leaves the site. This is also supported by Olagunju (2012) who opined that there is lack of maintenance set up in Nigeria that can sustain the current inadequate housing provision in the

country. Olagunju (2012) further stated that lack of appropriate tool for predictive maintenance of the existing buildings can have a detrimental effect on future housing development. Zubairu (1998) stated in his study that the country does not have a maintenance policy which resulted in the persistent problems of building maintenance.

Rental values of properties vary from place to place depending on various factors among which facilities availability stand prominent (Akogun, 2011). The study seeks to investigate the impact of property maintenance on property rental values in D/line Port Harcourt. The objectives of the study are;

- Identify maintenance practices that can enhance property values.
- Identify factors affecting property maintenance
- Identify maintenance condition of building elements that will impact on the rental   values of property.

1.1. Description of the Study Area

Port Harcourt is the capital and largest city of Rivers State, Nigeria. It lies along the Bonny River and is also located in the Niger Delta. As of 2016, the Port Harcourt Urban area has an estimated population of 1,865,000 inhabitants, up from 1,382,592 as of 2006(Ogwu and Chinedu, 2011). The area that became Port Harcourt in 1912 was before the part of the farmlands of the Diobu village group of the Ikwerre, an Igbo sub-group. The Colonial administration of Nigeria created the Port to export coal from the collieries of Enugu located 243 Kilometers (15 million) North of Port Harcourt to which it was linked by a railway called the Eastern line, also built by the British. There are a number of institutions of tertiary education in Port Harcourt mostly government owned. These institutions include, Rivers State University, University of Port Harcourt and Rivers State College of Art and Science currently now Rivers State Polytechnic and Rivers State College of Health Science and Technology.

D-line is a major business and urban residential neighborhood of Port Harcourt, Rivers State. Its geographical coordinates are 4^0 48' 8" North, 7^0 0' 10" East. The neighborhood is sometimes spelled "D/LINE" with a ZIPCODE of 500261. The Roman Catholic Diocese of Port Harcourt and the Methodist Church of Nigeria have their Cathedrals situated in D-line. D-line is located approximately 5km (3miles) away from the Port Harcourt Nigeria Air force (NAF) Base, and approximately 8km (5miles) South West of Elelenwo. There are elementary and secondary schools operating within D-line boundaries such as; Government Girls Secondary school, Oromineke, Methodist comprehensive High School and Niger Grammar School.
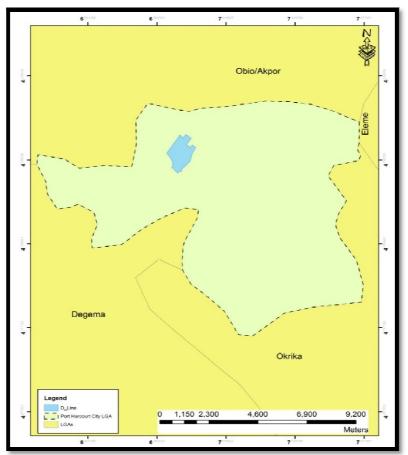

Figure 1: Map of Port Harcourt City Showing D/Line
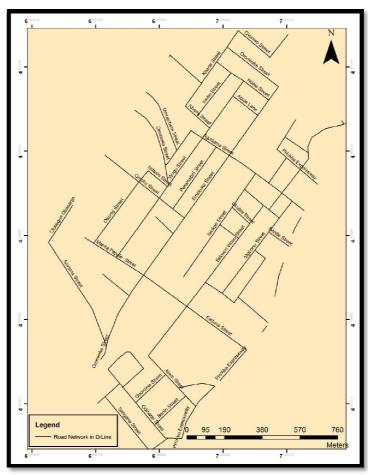*(Isiodu and Sokari, 2017)*

Figure 2: Map Showing Streets in D/Line Port Harcourt
(Isiodu and Sokari, 2017)

2. A Brief Review of Related Literature

2.1. Concept of Rental Value

Value by its ordinary definition particularly in basic economics, means the amount of money that something is worth that is, the price it can command if sold at a given date. With respect to real estate, value means worth of an interest in land or, land and building or claims on chattels assessed by appropriate method of valuation. Rental value is defined as the amount the property is eligible to get had it been rented out as per the prevailing situations existing in that for similar property. Rental value is the fair market value of property while rented out in a lease. More generally, it may be the consideration paid under the lease for the right to occupy, or the royalties or return received by a lessor (landlord) under a license to real property. In the science and art of appraisal, it is the amount that would be paid for rental of similar real property in the same condition and in the same area (Wikipedia, 2007).

Adeniji (2000) emphasized that value is normally expressed in monetary terms, which indicates the power of a commodity to command other commodities in exchange. Kuye (2000) defined rent as "an annual or periodic payment for the use of land or of land and building". He regards rent as a compensation or regular payment made to the owner of the property by the user or occupier as return for his occupancy – Rent is seen an annual or periodic payment for the use of land or building (Britten et al, 1989). In fixing the rent of a property, a valuer is largely influenced in practice by the evidence he can find, the rent actually paid, not only for the property being valued but also for comparable properties in the same neighborhood or area. However, "rent" is generally used in relation to land and building while "hire" is normally used for other material objects. The rent payment could be weekly, monthly, quarterly or yearly depending on the terms and condition of the tenancy.

2.2. Concept of Property Value

Real property is defined as land, buildings and other improvements there on and the legal right relating to the asset-land (Ekenta, 2010). However, this definition tends to be confusing as there is always a distinction between real property and real estate, though both terms are sometimes used interchangeably in real estate profession literature and practice (Schram, 2012). Real property is seen only as the interests, benefits, and rights inherent in the ownership of real estate, while real estate is defined as only the physical land and the improvements thereon (Schram, 2012). This dissimilarity clarify that real property cannot be both land and rights and that is the reason why most appraisers are concerned in the interest substituting in the property than the property per se. At the same time, the classification is according to their forms of ownership, use, etc., and which could be classified into possessory real property and non-

possessory real property (Schram, 2012). The real property in any of its investment sector has the characteristics which are noticeable from other investments. However, Kalu (2001) identify the following characteristics to include; heterogeneity, risk, liquidity, and indivisibility. Others are; high cost of transfer, holding cost, income and capital growth, special ownership games, imperfect knowledge, perpetuity, and leverage or gearing. In other words, the discussion above is not out of place, but the study context is on property rental values.

2.3. A Review of Related Studies

Odediran etal; (2012) conducted a study on maintenance of residential buildings; users practice in Nigeria. The study examines maintenance practice among users of residential properties in Nigeria. In assessing how often maintenance practice is being undertaken by occupiers, it shows that users maintained their properties daily by undertaking regular sweeping and mobbing of the floor. The researcher further stated that economic factor prevents users from carrying out effective maintenance on buildings. The researcher therefore recommends that individual should embrace maintenance as a practice and government should engineer action towards more advocacy, policy and awareness on the maintenance as a practice for national sustainability.

Ankeli et al; (2015) focus on housing condition and residential property rental values in Ede, Nigeria. Two sets of questionnaire were distributed to tenants/ landlords of rented residential properties and estate surveyors and valuers. A total of 300 questionnaires were administered on the respondent using systematic Random sampling techniques. The data collected were further analyzed with the aid of both descriptive and inferential analytical techniques. The researcher stated that properties with better conditions in terms of infrastructures and physical soundness command higher rental values that investment in residential property development will in the next three years continue to enjoy and maintain an upward growth rate. In the recommendation it was suggested that there is need for property owner / developers and users to be educated on the need for the provision of basic infrastructure and sustainable maintenance culture. He further recommended that government should make policies aimed at defining environmental housing quality standard and provide supervisory agency that will be responsible for the monitoring and implementation of housing standards.

According to Siyanbola et al, 2013 maintenance of building received little attention from the users, designers and contractor's. It should be noted that the maintenance purpose is to preserve buildings in their initial functional, structural and aesthetic states. This is to ensure that they continue to remain in such state and retain their investment value over a long period of existence (Ipingbenu, 2010).

Ihuah et al; (2014) conducted a comparative study on two residential estates (Agbama and Ehimiri) in Umuahia, Nigeria the study was based on assessing the impact of inadequate infrastructures provision on real property values. Questionnaires were distributed to housing units residents/tenants and landlords of estate that have been completed and occupied. The study revealed that there are better infrastructural provisions in Ehimiri housing estate as compared to Agbama housing estate. The study further analyzed the rental trends of the two housing estates from 2007 to 2014. However, in his recommendation it was suggested that an empirical investigation should be conducted on the causes of inadequate infrastructures provision identified in the theoretical framework. This assists to establish if these causes would have stronger association with these known infrastructures and then the probability of either positively or negatively influencing property value of housing estate units.

Talib et al; 2014 study on the Assessment of factors affecting building maintenance and defects of public buildings in Penang, Malaysia. The data for the research work was obtained through the administration of structured questionnaire. In analysis of data collected, the descriptive statistics was used to analyze the demographic data of the respondents while it was used to analyze the respondent's score of the basic maintenance and defect factors. The researcher stated that 5 major factors affecting building maintenance of public buildings are; lack of preventive maintenance, insufficient funds, lack of building maintenance standard, non – response to maintenance request. In further, state 5 factors of building defects which were ranked as most significant factors which are; lack of building maintenance, over looked site conditions, defective material, environment conditions and moisture from wet areas.

3. Research Methods

The study was conducted on tenant occupying residential properties (blocks of 2 and 3 bedroom flats) in D/line Port Harcourt and registered firms of estate surveyors and valuers practicing in Rivers state. The total target population for the study is 119 firms and 230 tenants in the study area. This was selected through a purposive sampling technique with a sample size of 92 firms and 146 tenants with the aid of the taro Yamane formular. A total of 238 questionnaires were distributed to the sample groups, out of which 210 were retrieved representing 89% response rate which was found useful for analysis. Data collected for the study was analyzed through the use of percentage, mean and line graph.

4. Result and Discussions

The results from the study are presented below

4.1. Types of Maintenance Practice Adopted

Table 4.1 presents data on the type of maintenance practice adopted by estate firms. Preventive maintenance has the highest frequency of 33 (41.3%), followed by scheduled maintenance with 27 (33.7%), emergency maintenance with 12 (15.0%) and corrective maintenance with 8 (10.0%) respectively.

Responses	Frequency	Percent
Preventive	33	41.3
Emergency	12	15.0
Corrective	8	10.0
Scheduled	27	33.7
Total	80	100.0

Table 1: Types of Maintenance Practice Adopted
Source: Author's Field Work 2017

4.2. Factors that will affect Property Maintenance

In table 4.2, the factors that affect property maintenance were examined and ranked with lack of sufficient fund ranked first with mean value of 4.6625. It shows that lack of sufficient funds affect property maintenance the most. Ranked second is lack of preventive maintenance with mean value of 4.4750, third is not using of building after completion with mean value of 4.2375, fourth is lack of building maintenance manual with 4.2125 mean, fifth is design complexity with 4.1833 mean, sixth is owners attitude to building maintenance with 4.0125 mean, ranked seventh is wrong behaviour of occupant with mean of 3.6375 and ranked eighth is use of substandard materials with mean of 3.5250.

Factors	SA 5	A 4	U 3	D 2	SD 1	F	Mean score	Rank
Lack of preventive maintenance	45	30	3	2	-	80	4.4750	2nd
Lack of sufficient funds	54	25	1	-	-	80	4.6625	1st
Use of substandard materials	25	20	15	12	8	80	3.5250	8th
Not using building after completion	33	30	6	3	5	80	4.2375	3th
Owner's attitude to building maintenance	30	35	5	6	4	80	4.0125	6th
Wrong behaviour of occupants	28	25	5	14	8	80	3.6375	7th
Design complexity	30	25	5	5	5	80	4.1250	5th
Lack of building maintenance manual	38	32	2	5	3	80	4.2125	4th

Table 2: Factors That Will Affect Property Maintenance
SA=Strongly Agree, A=Agree, U=Undecided, D=Disagree, SD=Strongly Disagree
Source: Author's Field Work 2017

4.3. Building Elements That Will Impact on Property Rental Values

Table 3 below shows building elements that will impact on property rental values. The most building element ranked first is number of roof with mean score of 4.4846, ranked second is number of rooms with 4.3846 mean score, third is No of toilets with mean score of 4.3308. The fourth building element is number of bathrooms, fifth is floor damage, sixth is walls, seventh is sanitary fittings, eighth is door and window, ninth is peeling of wall surface, tenth is fence damage and eleventh is number of water heater respectively.

Property Element	SA 5	A 4	U 3	D 2	SD 1	F	Mean score	Rank
Roof	73	52	1	3	1	130	4.4846	1st
Door and window	50	60	4	5	11	130	4.0231	8th
Walls	63	50	-	7	10	130	4.1462	6th
Floor damage	54	52	2	5	17	130	4.2385	5th
Sanitary fittings	55	57	1	4	13	130	4.0538	7th
Peeling of wall surface	45	51	2	17	4	130	3.9000	9th
Fence damage	48	40	7	10	25	130	3.5846	10th
No. of rooms	69	53	-	5	3	130	4.3846	2nd
No. of toilets	65	55	2	4	4	130	4.3308	3rd
No. of bathrooms	61	56	4	3	6	130	4.2538	4th
No. of water heater	46	38	10	15	21	130	3.5615	11th

Table 3: Building Elements That Will Impact on Property Rental Values
SA=Strongly Agree, A=Agree, U=Undecided, D=Disagree, SD=Strongly Disagree
Source: Author's Field Work 2017

4.4. Rental Trends of Residential Properties (Block of Flats) in D-line

Table 4.4 presents data on rental value of poorly and well maintained properties within the neighbourhood of D-Line in Port Harcourt. The Results of the data show that rental values of well-maintained properties are higher than that of poorly maintained properties as shown in table 4 for 2 bedroom and 3 bedroom flats. The study has shown from the graph below on the rental growth trend of poorly and well maintained properties in D/line from 2013-2017. The rental values of poorly maintained 2 bedroom flat for 5 years period ranges from #300,000-#450,000($824.5-$1,236.8) while well maintained flatsranges from #400,000-#600,000 ($1,099.3-$1,649). It therefore shows a difference of #100,000-#200,000 ($274.8-$549.6) rental growths in each year due to good maintenance practices on the building and its elements. On the other hand, the rental values of poorly maintained 3-bedroom flats over the same period ranges from #450,000-#550,000 ($1,236.8-$1,511.6) while well maintained3-bedroom flats ranges from #600,000-#800,000 ($1,649-$2,198.7). From the graph it indicates a rental growth difference of #150,000-#250,000 ($412.2-$687.1) in each year as a result of adequate maintenance on the property. However, existing tenant of such property will be willing to renew their tenancy after expiration due to high level of satisfaction they derived as a result of a good maintenance practices. These properties can easily be let out to prospective tenants. On the other hand, the poorly maintained property affects the rental growth of the investment property due to neglect in carrying out proper maintenance on the building and its elements. These properties may be difficult to let out and during management.

Years	Rental Values of Poorly Maintained Flats	Rental Values of Well-Maintained Flats	Rental Values of Poorly Maintained Flats	Rental Values of Well-Maintained Flats
	2 bedroom	2 bedroom	3 bedroom	3 bedroom
2013	300,000	400,000	450,000	600,000
2014	300,000	500,000	500,000	650,000
2015	400,000	500,000	500,000	650,000
2016	400,000	600,000	550,000	800,000
2017	450,000	600,000	550,000	800,000

Table 4: Rental Trends of a Well and poorly Maintained Properties
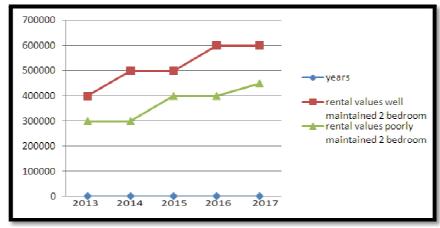*Source: Author's Field Work 2017*

Figure 3: Rentals Trends for Well and Poorly Maintains 2
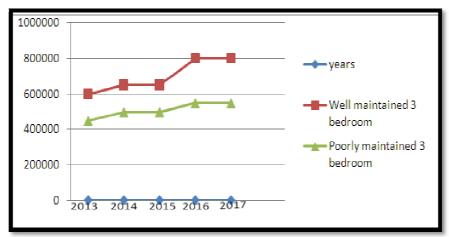*Bedroom Flats From 2013-2017*

Figure 4: Rentals Trends for Well and Poorly Maintains 3
Bedroom Flats from 2013-2017

5. Conclusion and Recommendations

Maintenance of building requires attention at the highest level. This attention is of basic significance of which the objective must be to keep the building and its elements to acceptable standard for the purpose of making them functional and reliable. Poor attitude of owner's and users towards maintenance contribute to serious defects seen in the life span of buildings.

The study is essential in the sense that it would not only contribute to knowledge but will also contribute to good maintenance practice among owner's and users of properties in Port Harcourt most especially D/line where the study was carried out. However, the study showed that property maintenance have positive impact on property rental values in essence maintenance should not be neglected, in addition it will further reduces the shortage of housing stock in the country. The study recommended that preventive maintenance practices should be adopted by property managers to ensure adequate preservation of the building elements as it enhances property values and owners should set aside some percentage of the rent paid on the property annually to carry out maintenance when required.

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