

Comparative Analysis of Rental Values of Commercial Properties In Umuodu, Owerri, Nigeria Before And After Demolition Of Owerri Main Market

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Abstract

This study aimed at comparing the rental value of commercial properties (shops/offices) in Umuodu, Owerri before and after the demolition of Owerri main market. The objectives were to determine the open market rents and open market values from 2010-2019 and to assess the effect of the demolition on commercial property values within the study area. A total number of 220 commercial property occupiers were used for the study and they supplied data on annual rents of shops/offices in which they occupied. The Mann Whitney U Test was used to analyze the data generated from the study. From the study it was discovered that the mean rental value of 3 bedroom flats in Umuodu Owerri rose from ₦345, 000 before demolition of Owerri Main Market to ₦450, 000 after the demolition representing a 30% increase. Also, the mean rental value of 2.4025m² shops/offices rose from ₦57, 000 before the demolition to ₦120, 000 after the demolition representing over 110% increase. The sharp increase in the rental value of shops was as a result of dearth of shops for the displaced merchants to move to. It was therefore recommended that government should ensure that there are existing shops/offices where merchants could relocate to before carrying out any market demolition exercise.

Key Words

Commercial Properties, Demolition, Rental Value, Owerri, Main Market

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I. Introduction

Demolition of markets and eviction of marketers is not new in our clime. The reasons for demolition include slum clearance, urban renewal, illegal structure, etc. According Komolafe (2016), the first demolition exercise was done in 1920 by the Lagos Executive Development Board now known as Lagos State Development and Property Corporation as a result of the outbreak of bubonic plague. Demolition of buildings that have existed for decades could be a difficult and even controversial decision. The decision to demolish becomes more compounded when buildings have historical value either in themselves or as part of the neighborhood or district where they are located, or when the buildings contain architectural features or craftsmanship that are rarely seen in recent construction (Mallach, 2012). A case in point is the demolition of part of Kano state's city gates in 2010 by a construction company for the expansion of roads in the city. The gate had existed for over 500 years and was seen as both a historical and architectural masterpiece and the demolition attracted a lot of criticism from the public. However, large-scale demolition thoughtfully and responsibly carried out is a necessary step in the process of rebuilding a county's distressed older cities (Mallach, 2012).

Owerri Main Market (Ekeukwu Owerri) is a daily market which is located in the Central Business District (CBD) of Owerri Municipal. As a result of the location of Owerri Main Market, different people from different areas come to transact business, buy and sell goods. Places that were occupied by people, goods, lorries, cars, and buses extended to the main roads. This resulted to traffic congestion, refuse dumps, rampage of touts and noise pollution which created nuisance to the society therefore, the Imo State Government took a decision to demolish the market on 26th August, 2017 (Nnadi, 2021). After the demolition of Owerri main market, most shop owners and occupiers were displaced and since government did not make adequate provision for the relocation of the traders, they had to look for alternatives in make shift shops/offices or relocate to other markets and even most of the landlords of residential properties within the area had to change the use of their properties to commercial use probably to make more returns. It was assumed that rental values of commercial properties would have changed tremendously. Therefore, the aim of this paper is to analyze the rental values of

commercial properties (shops/ offices) in Umuodu Owerri before and after demolition of Owerri main market for the period 2010-2021 with the view to ascertaining whether the demolition of the market had any effect on the rental value of commercial properties (shops/ offices) in Umuodu Owerri within the study period.

Commercial properties include offices and retail outlets such as shopping malls, supermarkets, local consumer shops, warehouses, markets, and others (Nwankwo, 2017) and they are mostly centered at the Central Business District (CBD). According to Egolum (2002), rental value could be seen as the rent at which the property would be let in the open market at a given date with enough advertisement and time to attract prospective tenants who are conversant with the property market situations and the potentials of the subject property; keeping in mind that the deal leading to arrival at this value should be struck at arm's length without any undue influence on each of the parties.

II. Literature Review

Demolition of markets had earlier been carried out in some States, like Anambra State, Lagos State, Abia State, Abuja, Ebonyi State According to Odife (2018), illegal structures erected along the roads leading to Onitsha main market were demolished because they caused grave danger to business in the markets, as they made entrance to the market impossible thereby scaring away customers from the market. This was because the main market was collapsing; causing people to abandon their shops, sublet their shops and moved to the streets like Sokoto road, Bida road, Bright Street blocking the way, since they believed that by blocking the roads they would make many sales. Through demolition, illegal structures on Old market road, Ose market, Johnson Street and Bright Street were cleared (Odife, 2018).

In Abia State, illegal structures at Ariaria market were demolished by the government but before the demolition, the traders had been directed to relocate to the Aba Mega Mall, and legitimate shop owners in the market were assured of getting back their shops after the exercise while illegal owners will forfeit ownership of such illegal structures. The rebuilding of the market took place in phases beginning with the park 1 and 2 areas. A committee was set up by the State government to restore the master plan of the market and upgrade it to the standard of an International market (Nwaigwe, 2016).

In Lagos State, the popular Ile-Epo food Stuff Market in Agbado Oke-Odo was demolished. The demolition was done so as to pave way for a befitting modern market. Before the commencement of the demolition, government provided an alternative place for the traders to relocate to. According to Onyekachi (2018), the market was not demolished at a go rather; it was done in three phases. Those traders would be given first consideration at discounted rate to own shops in the market before others at the completion of the market.

Several studies have been carried out in Nigeria on demolition of structures though not necessarily on demolition of markets and rental values. Ogeah (2013), studied on creation and demolitions of illegal structures in Nigeria cities like Benin City. The study showed that, due to poor economic conditions landlords had to restructure and convert their houses into mixed uses in order to make a living. This led to springing up of illegal structure without planning regulations thereby prompting the state government to carry out demolition exercise. Ogeah (2013) concluded that to avoid reoccurrence of similar situation, government should improve on means of livelihood of the people, planning authority should live up to its responsibility and the public must be enlightened on the laws and important of physical planning. However, while this research dwelt on demolition of illegal structures, it was not centered on property values.

Tunde (2016) studied the impact of housing demolition and forced eviction on rental values in Federal Capital Territory (FCT), Abuja. The study centered on Sabon Lugbe which was an informal settlement demolished in 2009. The study assessed the impact of the demolition of Sabon Lugbe on the rental values of residential and commercial properties in FHA estate Lugbe, Abuja. The study revealed that the demolition and forced eviction of Sabon- Lugbe village brought about change in the residential property annual rental trends for one bedroom, two bedroom and three bedroom flats respectively in 2009-2010 in the FCT. There was also change in annual rent trend for commercial properties (lockup shops, and offices) experienced in the study area due to high demand brought about by population upsurge from Sabon- Lugbe environs.

Udokanem, Ighalo and Sanusi (2018), carried out a research on predictive modality of office rent in selected districts of Abuja, Nigeria. The study focused on office rents in selected districts of Abuja namely, Asokoro, Maitama and Utako. The study examined the drivers of office rents in selected districts for the period of 2011- 2012. Single equation regression analysis was used in the study. The developed office rent model accounted for 76%, 72% and 75% of the variation in office property rents in the commercial property market of the selected districts respectively. The study showed that GDP growth and vacancy rate are the major determinants of rental growth in the office property market in the districts of Asokoro and Maitama, while GDP growth is the major driver of office rents in the Utako district.

Momoh, Isabel and Benachi (2018), studied on the aspect of urban development and housing demolition in Abuja city: The benefits of adopting the principles of sustainability. The research critically analyzed the impact of different planning policies and the schemes under which the city has been expanding

which included housing demolition to maintain the master plan. The study showed a clear demonstration that the policies regarding the demolition of informal settlements are not the best solution to the Abuja master plan and it is socially/economically unsustainable but rather there are potential benefits in the adaptation of sustainability principles in the urban development of Abuja city. However, the study did not examine the effect of the demolition on property values.

III. Research Methodology

The population of this study comprises shops/office users doing business in the study area. The number of shops/office users and commercial properties are two hundred and thirty two (232).

Two hundred and thirty-two (232) questionnaires were distributed to the users of shops/offices and two hundred and twenty (220) were duly completed and returned. This represents the response rate of 95%. The questionnaire contained structured and unstructured questions relevant to the study. The data collected were analyzed using Mann Whitney U Test (Wilcoxon Rank Sum Test)

To assess the effect of the demolition of Owerri Main Market on commercial property values in Owerri Municipal, test for the significant difference of shop rents before and after the demolition of the shops was conducted. Independent two samples T test, a parametric test is usually used for this kind of test. An underlying assumption for appropriate use of this test is that the errors of the independent two sample T test are normally distributed or that the samples are sufficiently large (usually $n_1 \geq 30$ and $n_2 \geq 30$) based on the central limit theorem. When comparing two independent samples when the errors are not normally distributed or the samples are small, a non-parametric test is appropriate. Therefore, Mann Whitney U test also called Wilcoxon Rank Sum Test which is a non-parametric equivalent to the two samples independent T test was used to compare outcomes between two independent groups. The Mann Whitney U test was used to investigate whether the two independent samples selected from population had the same distribution (i.e. whether they had the same median).

The null and two-sided research hypotheses for the nonparametric test for this study are stated as follows:

H_0 : There is no significant difference in the rental value before and after demolition in Umuodu

H_1 : There is a significant difference in the rental value before and after demolition in Umuodu

$\alpha = 0.05$

Steps in Mann Whitney U Test

Arrange the two groups in ascending order on a single column taking note of the group each variable belongs to, and rank the variables. If there is a tie, we calculate the mean of the rank the tied variables should have had if they were to be different. Sum the rank of the variables belonging to each of the independent groups and call them R_1 and R_2 . Calculate the test statistic,

$$U = \min(U_1, U_2)$$

Where

$$U_1 = n_1 n_2 + \frac{n_1 (n_1 + 1)}{2} - R_1 \quad \text{and}$$

$$U_2 = n_1 n_2 + \frac{n_2 (n_2 + 1)}{2} - R_2$$

Also: R_1 and R_2 is the sum of ranks in the two independent groups

n_1 and n_2 are the different sample sizes for the two independent groups.

Compare the test statistic with the Mann Whitney critical value or the p value of the test statistic and the alpha value. If the p value < the alpha value, we reject the null hypothesis and conclude that the two population are not equal.

IV. Data Presentation And Analysis

Table 1: Annual rental values of shops/ offices in Umuodu, Owerri from 2010-2016 (Before demolition of Owerri main market).

Year	13.5225M ²	12.25M ²	2.4025M ²	26.718M ²	2 bedroom flat	3 bedroom flat
	Shops/offices	Shop/offices	Shops/offices	Shops/offices		
2010	78,000	59,000	42,000	230,000	180,000	280,000
2011	78,000	59,000	42,000	230,000	180,000	280,000
2012	78,000	59,000	42,000	230,000	180,000	280,000
2013	78,000	59,000	42,000	230,000	180,000	280,000

2014	78,000	59,000	42,000	230,000	180,000	280,000
2015	108,000	86,000	57,000	286,000	250,000	345,000
2016	108,000	86,000	57,000	286,000	250,000	345,000

Table 2: Annual rental values of shops/offices in Umuodu, Owerri from 2017-2021 (After demolition of Owerri main market).

Year	13.5225M ²	12.25M ²	2.4025M ²	26.718M ²	2 bedroom flat	3 bedroom flat
	Shops/offices	Shop/offices	Shops/offices	Shops/offices		
2017	108,000	86,000	57,000	286,000	250,000	348,000
2018	240,000	132,000	85,000	310,000	340,000	438,000
2019	240,000	132,000	85,000	310,000	340,000	438,000
2020	300,000	200,000	120,000	400,000	360,000	450,000
2021	300,000	200,000	120,000	400,000	360,000	450,000

Analysis/Results of Rental Value of Shops/Offices in Umuodu, Owerri

Table 3 below gives us the residual mean, standard deviation (SD), Anderson Darling (AD) test statistics and the P-Value of the Anderson Darling test statistic. The P-value of the Anderson Darling test statistic is used to make decision of rejecting or not rejecting the null hypothesis of normality of the error variables. We reject the null hypothesis if the $P - Value < \alpha$

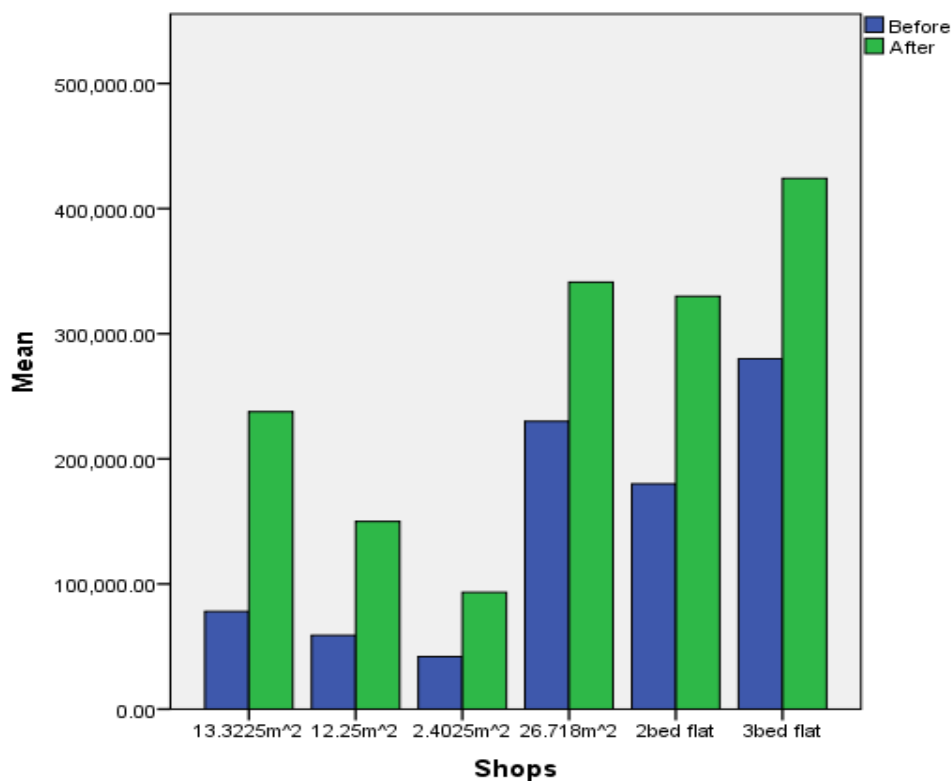
Table 3: Summary of the Normality Test in Umuodu

	13.3225 m ²	12.25 m ²	2.4025 m ²	26.718 m ²	2bed flat	3bed flat
Mean	-1.21E-12	-2.304E-11	-2.305E-11	-7.52E-11	0	-4.85E-12
StDev	48506	31313	17063	38599	37417	35701
AD	1.127	0.701	0.777	0.935	0.548	0.583
P-Value	0.0005	0.049	0.031	0.012	0.124	0.101

The errors for most of the shops/offices are not normally distributed since most of the points on the Normal Probability Plot in Appendix A are not aligned on the diagonal line and the p values in the table above are less than 0.05 at 0.05 level of significance. We can no longer use the independent two sample T test as the data does not satisfy the normality assumption. We proceed to the non-parametric equivalent, the Mann Whitney U test. We reject the null hypothesis that there is no significant difference in the rental values before and after demolition for all the shops and offices in Umuodu Owerri and conclude that there is an effect in the demolition of Owerri Main Market on the rental value of shops and offices. The rental value after the demolition of Owerri Main Market is greater than the rental value before the demolition at 0.05 level of significance since all the p values in Table 4 are less than 0.05. This is also confirmed by the multiple bar chart in Figure 1. The bars of the mean rental value for all the shops and offices in Umuodu Owerri after the demolition is higher than the bars of the mean rental value before the demolition.

Table 4: Mann Whitney U Test Summary for Umuodu

Shops in Umuodu	p-value	Decision
13.3225 m ²	0.005	Reject the null hypothesis
12.25 m ²	0.005	Reject the null hypothesis
2.4025 m ²	0.005	Reject the null hypothesis
26.718 m ²	0.005	Reject the null hypothesis
2bed flat	0.005	Reject the null hypothesis
3bed flat	0.005	Reject the null hypothesis



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Figure 1: Multiple bar chart for all the shops/offices in Umuodu, Owerri.

From the analysis of the study, the following findings were made: The rental values of shops/offices in Umuodu Owerri were affected by the demolition of Owerri main market because the rental value after demolition of Owerri main market is greater than the rental value before the demolition at 0.05 level of significance, since all the p values in table 4 are less than 0.05. This could be attributed to the dearth of shop/offices as a result of the demolition of Owerri main market thereby causing a greater demand for shops/offices.

V. Conclusion/Recommendations

The following conclusions were drawn from the finding:

3 bedroom flats in Umuodu Owerri had the highest Mean Rental Value of ₦345, 000 before demolition of Owerri Main Market and 2.4025m² shops/offices have the lowest Mean Rental Value of ₦57, 000. After the demolition of Owerri main market, 3 bedroom flats in Umuodu Owerri have the highest mean rental value of ₦450, 000 and 2.4025m² shops/offices have the lowest mean rental value of ₦120, 000.

Consequently, the following recommendations were made:

Government should ensure that adequate provision is made for the relocation of shop/office users before embarking on demolition exercise.

During the data collection stage, it was discovered that relevant ministries/parastatals were not involved in the demolition exercise by the government. Thus, it was very difficult to acquire data on demolition of market in the state and other states of Nigeria. Therefore, it is recommended that state governments should always involve ministries such as Ministry Information and of the Ministry of Lands and Survey in the demolition exercise in order to have records, information and data in the offices. This will make work easier for future researchers carrying out studies in related area.

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APPENDIX A

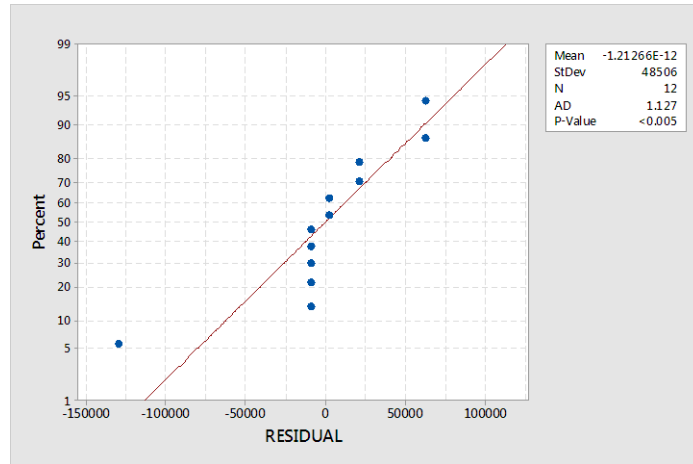


Figure 2: Normal Probability Plot (13.3225m² for Umuodu)

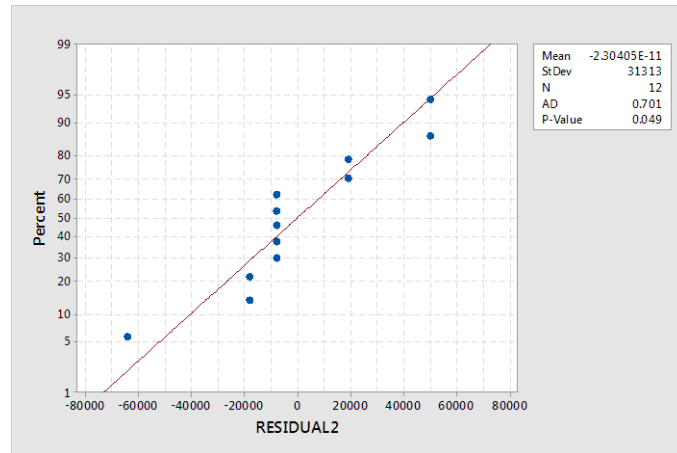


Figure 3: Normal Probability Plot (12.25m² for Umuodu)

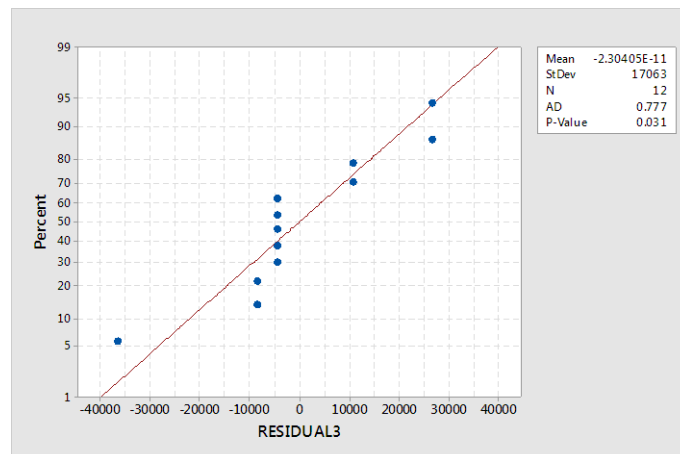


Figure 4: Normal Probability Plot (2.4025m² for Umuodu)

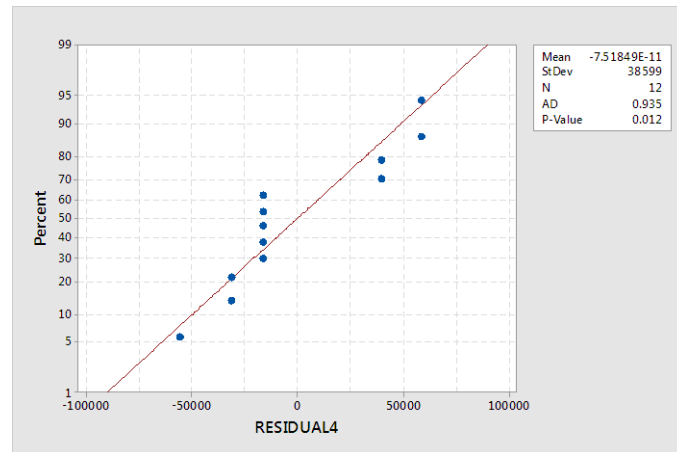


Figure 5: Normal Probability Plot (26.718m² for Umuodu)

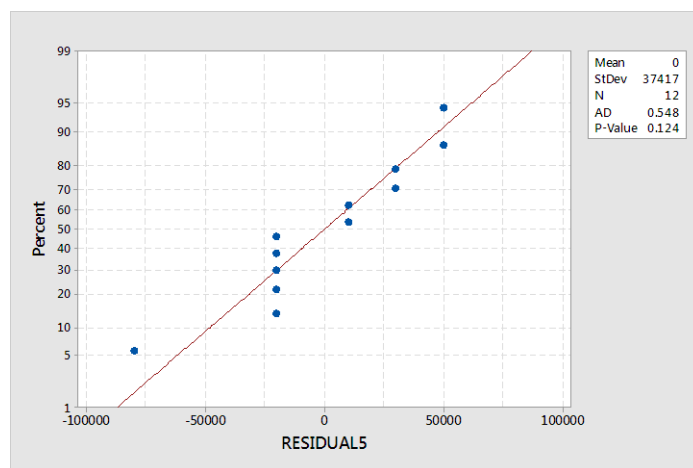


Figure 6: Normal Probability Plot (2bedroom flat for Umuodu)

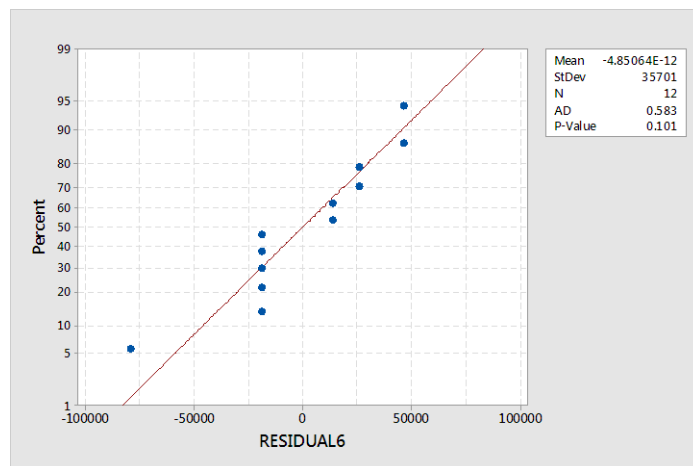


Figure 7: Normal Probability Plot (3bedroom flat for Umuodu)

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