

Building Material Prices and the Rental Values of Residential Properties in Ede, Nigeria

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Abstract

Purpose: The aim of this study is to examine the relationship between building material prices and the rental values of residential properties in Ede, Nigeria from 1997 to 2016 with a view to providing information for investment decisions.

Design/Methods followed/Approach: The study was carried out by means of questionnaire survey. The population for the study consisted of Estate Surveyors and Valuers, Landlords, Builders/building contractors and building material suppliers/sellers in Ede. The areas covered for this study includes: Oke-gada, Ededimeji, Okeresi, Agbale and country home in Ede. A total of three hundred and forty five (345) questionnaires were administered on the respective respondents by means of random sampling technique. Three hundred (300) questionnaire were administered on landlords and (257) were retrieved, twenty four (24) questionnaire were administered on building material suppliers/sellers and eighteen (18) were retrieved. Fourteen (14) were administered on builders/building contractors and eight (8) were retrieved. Similarly, seven (7) questionnaire were administered on estate surveyors and valuers and five (5) were retrieved. The total questionnaire retrieved was (288) representing 83.5% response rate. Both descriptive and inferential statistical tools were used in analysis of the data obtained. A multiple regression model was used to determine the interrelationships between the dependent variable and the predictors or independent variables.

Findings: The study found that there was a steady and consistent increase in both building material prices and rental values of residential properties from 1997 to 2016 in the study area. The study further showed that there was a

strong significant relationship of 0.957 between building material prices and the rental values of residential properties in the study area with prices of roofing sheet being the strongest rental predictor (0.002) followed by granite (0.022), cement (0.38) and then sharp sand (0.47).

Practical Implication: The study provided relevant information that can guide real estate investors, builders, real estate professionals and other stakeholders in the real estate sector regarding the influence of building material prices on the rental values of residential properties in Nigeria.

Originality/Value: The problem of consistent increase of rent on residential properties in Ede over the last few years has necessitated this investigation which provided an insight into the factors influencing such high rise in rent. This is the first study that addresses this issue in Ede, Nigeria.

Keywords: Building materials, construction, rent, residential, real estate, value.

1. Introduction

Building materials comprise of a wide range of items that are basically used in the building industry. They either are in their individual forms or composite forms and are also either in their natural state or partially/completely processed in the manufacturing industries. Such materials among others include: sand, timber, reinforcement bars, asbestos, roofing sheets and metal products (Udosen & Akanni, 2010; Akanni, 2014). These materials are generally believed to influence the quality and cost of housing products (Adewusi & Oladokun, 2017). Jagboro & Owoeye (2004) and Anosike (2009) observed that prices of building materials to a great extent determine the level of housing development. It has been observed that the higher the price of building materials the higher the amount needed for housing development which invariably affects the rent demanded by property owners (Akanni, 2006).

Anthony (2012) opined that rent varies in meaning depending on the type of rent being considered; the author asserted that rent is 'the regular periodic payment made for the use of land and structure thereon for the purpose of habitation'. Professionals in the real estate sector and in the building industry generally, are often faced with the challenge of determination of appropriate and adequate rental value of different types of properties as it involves the use

of professional techniques and market data which most often are not readily available (Omotehinshe, Dabara & Guyimu, 2015; Ankeli, Dabara, Omotehinshe, Omoyosi & Agidi, 2017). It was observed that rental values of particularly residential properties have been on the increase over time most especially in towns like Ede, Nigeria. This brings to mind the question of the factors influencing this general and consistent rise in rental values. Particularly it is very important to find out if building material prices influences the rental values of the said properties.

In the past few years, prices of residential properties in Ede metropolis have become very expensive and the situation kept getting worse by the day (Ankeli et al. 2015). This trend has posed a challenging situation to tenants in the study area. It is therefore, pertinent to find out the factors influencing this general rise in the rental values of properties in Ede. It is in this regard that this research is undertaken with the aim of determining the relationship between building material prices and the rental values of residential properties in Ede between 1997 and 2016. Hence the researchers seek to find answers to the following questions: What were the rental values of residential properties in Ede from 1997 to 2016? What were the trends of building material prices in Ede between 1997 and 2016? And is there any relationship between building material prices and the rental values of residential properties in the study area?

This research is structured as follows: The introductory part is followed by a brief review of empirical literature on the subject matter. The next section presents the methodology adopted for the study, after which the results and their discussion were presented; the paper closes with a concluding remark.

2. Literature Review

Abdulrahim (2016) carried out a study in Malaysia which aimed at examining factors influencing building material cost on housing development in the study area. Data for the study was obtained through questionnaires survey. The data were analyzed using Average Index (AI) and Relative Compliance Index (RCI). The study revealed that building materials in the study area were observed to be higher in 2013 than in 2009, the costs of housing development were observed to be influenced by fluctuations in building material prices. Oyeniyi (2016) carried out a study in Nigeria which investigated the

relationship between inflation and construction material prices. The study was analyzed using correlation co-efficient, analysis of variance and regression analysis. The study showed that increase in construction material prices were caused by increasing inflation, cost of importation of construction material and interest rate among others. The study established that changes in inflation rate among others influences the prices of construction materials.

Iwaju (2015) carried out a study in Nigeria, the study examined the national housing need and housing provision major constrains in delivery of low cost housing in Nigeria. The relative important index (RII) was used in analyzing the data obtained, findings from the study revealed that since independence (1960), the Nigerian government has demonstrated commitment to address housing problem in several ways but due to the high cost of buildings materials among other factors, they were not able to adequately address the housing need in the country. Murungi (2014) carried out a study in Nairobi, the study examined factors determining price changes of residential houses in Nairobi over the period 2008 to 2012. Data obtained for the study were analyzed by means of correlations and regression models. Findings from the study showed that increasing demand on land and construction material costs were strongest factors determining housing prices in Nairobi.

3. Methodology

The study area for this research work is Ede metropolis in Osun State, Nigeria. Ede town lies along River Osun, it is one of the ancient towns in Yoruba land. It is said to have been founded by Timi Agbale around 1500AD. Ede is mainly a Yoruba settlement; however, it has today become a heterogeneous town in terms of people of various ethnic origins living in the town. Diversity of ethnic composition has impacted on housing types in the town. The influx of people leads to high demand on residential accommodation most especially with the establishment of higher institutions such as the Federal Polytechnic Ede, Redeemers University and Adeleke University.

The population for the study consisted of Estate Surveyors and Valuers, Landlords, builders/building contractors and building material suppliers/sellers in the study area. The areas covered for this study includes: Oke-gada, Ededimeji, Okeresi, Agbale and country home in Ede (these areas covered both prime locations and non prime locations in Ede). Questionnaire survey was

conducted to obtain specific data from the aforementioned respondents accordingly. A total of three hundred and forty five (345) questionnaires were administered on the respective respondents by means of random sampling technique. Three hundred (300) questionnaires were administered on landlords from whom data such as accommodation types, location and rental values among others were sourced (preliminary investigations revealed that data on rental value of residential properties covering the study period were not readily available in estate firms in the study area, hence the need to request for such information from landlords who rented out their residential properties within the study period); however, only two hundred and fifty seven (257) questionnaires were retrieved. Twenty four (24) questionnaires were administered on building material suppliers/sellers to source for data on building material prices and eighteen (18) questionnaires were retrieved. Fourteen (14) were administered on builders/building contractors to source for information on types of building materials and construction cost of residential properties in the study area, however only eight (8) questionnaires were retrieved. Similarly, seven (7) questionnaires were administered on estate surveyors and valuers to obtain data on rental values of the selected property types in the study area (this is to corroborate what was obtained from the landlords) and five (5) questionnaires were retrieved. The total questionnaires retrieved was (288) representing 83.5% response rate.

The survey consisted of two main types of questions: those which required a specific response from a limited set of choices (such as socio economic characteristics of the respondents and location of property); and those where respondents were asked to indicate their opinions in their own words (such as the prices of building material and rental values of properties in the study area). The selected predictors used for the study included: cement, sand, reinforcement bars, granite and roofing sheet (the selection of these major building materials among others was based on preliminary investigation conducted by means of factor analysis which revealed that they are the major predictors in the study area. Hence, other predictors such as items of finishing like paints, tiles, etc were excluded from this particular research even though they are also important predictors). This could be one of the limitations of the study as variations in quality/cost of overall predictors could affect rent. However, this study focused on deriving the strength of each selected predictors in the determination of rent in the study area. The variables as used in the questionnaire were obtained from existing literature; the variables were used to test the perception of the respondents as to whether it will be congruent

with what is obtainable in literature or otherwise. The common residential property types in the study area includes: single rooms with shared toilet and kitchen facilities; single room 'self-contained' (with toilet and kitchen facilities attached to room); room and parlour 'self-contained' (a bed room and sitting room with kitchen and toilet facilities attached); 2 and 3 bed room flats respectively. These selected accommodation types were used for this study. The data elicited from the respondents were collated and analyzed using both descriptive and inferential statistical tools such as percentages, frequencies, averages and a multiple regression model. The results are presented in the next section of the paper.

In line with previous studies such as Ankeli, Dabara, Oyediran, Guyimu & Oladimeji (2015), Dabara, Olatoye & Okorie (2012) and Dabara, Lawal, Adebowale, Ankeli & Gambo (2016) a multiple regression model was used to determine the interrelationships between the dependent variable (rental values of residential properties) and the predictors or independent variables (i.e. cement, sharp and plastering sand, granite, reinforcement bars and roofing sheets). The model is not only capable of handling the problem of interactions amongst the independent variables but also it enables us to know the contributions or the importance of each variable to the explanation of variation in the dependent variable. However one of the limitations of the study is its focus on major selected building materials such as the aforementioned materials and excluding other ancillary items and finishing materials such as tiles, paints etc. As mentioned earlier, this is because the study focused on determining the strongest and weakest rent predictors among the selected building materials in the study area.

The regression equation adopted is as follows:

$$Y = a + b_1CEM + b_2SSAN + b_3PSAN + b_4GRA + b_5RB + b_6RSHT \quad 1$$

Where:

Y = Rental Value of residential properties (RV)

CEM = Cement (X_1)

SSAN = Sharp sand (X_2)

PSAN= Plastering sand (X_3)

GRA = Granite (X_4)

RB = Reinforcement bar (X_5)

RSHT = Roofing sheet (X_6)

b_1, b_2, \dots, b_n are multiple regression coefficients for the independent variables

“a” is an error term which points to the fact that a proportion of the variance in the dependent variable Y is unexplained by the regression equation.

4. Results and Discussions

This section presented and analyzed data collected from the respondents. The annual average rental values of the selected accommodation types from 1997 to 2016 were obtained from Estate Surveyors and Valuers and subsequently analyzed. Due to challenges of obtaining archived data from the records of the estate surveyors, the researchers also got rental value data from landlords who rented their properties within the study period. This corroborated the values obtained from estate surveyors and valuers. Similarly the prices of selected building materials were also obtained from building material suppliers/sellers in the study area covering the study period. These data units were used to determine the relationship between building material prices and the rental values of residential properties in the study area. Table 1 presents the average annual rental values of residential properties in the study area within the study period. The rental value data supplied by the respondents covering both prime and non-prime locations of Ede were averaged per annum to give a general picture of the property rental market in the Ede. The average for each year over the study period is presented in Table 1.

Table 1: Average Annual Rental Values of Residential Properties (in Naira) in Ede from 1997 – 2016.

Type of property/ Year	Single Room	Room Self Contain	Room and Parlour Self Contain	2 Bedroom Flat	3 Bedroom Flat	Mean
1997	1200	1800	2500	3500	4500	2700
1998	1200	1800	2500	3500	4500	2700
1999	1200	1800	3500	4200	5200	3180
2000	1800	2400	3500	4200	5200	3420
2001	1800	2400	3500	4200	5200	3420
2002	1800	2400	4800	5400	6500	4180
2003	3600	4200	6000	7200	8200	5840
2004	3600	4200	6000	7200	8200	5840
2005	4800	5400	6600	8000	10000	6960
2006	4800	5400	6600	8000	15500	8060
2007	5400	6000	9600	12500	18000	10300
2008	5400	6000	9600	12500	18000	10300
2009	6000	6600	9600	12500	21000	11140
2010	6000	6600	12000	14500	32000	14220
2011	7200	7800	12000	14500	32000	14700
2012	7200	9500	18400	24000	48000	21420
2013	10800	15000	21500	36000	60500	28760
2014	14000	19000	24500	42000	68500	33600
2015	18000	22000	30000	65000	82000	43400
2016	22000	26000	36500	75000	100000	51900

Source: Field survey 2017

All the selected residential accommodation types (which represented the major accommodation types in the study area) showed a steady increase in rental value over time (see Figure 1). Table 1 revealed that the rental value of single room in Ede was stable from 1997 to 1999 i.e. 1,200 naira per annum. However, it started increasing from year 2000 to 2016 (from 1200 to 22,000 naira per annum). Likewise the rental value for a Room 'Self-Contained' was also stable from 1997 to 1999 with a rental value of 1,800 naira per annum. It however, started increasing from year 2000 to 2016 i.e. from 2,400 to 26,000 naira per annum over the period. The same was also applicable to room and parlour 'self-contained', its rental value was stable between 1997 and 1999 (i.e., 2,500 naira per annum) and it started increasing from the year 2000 to 2016 i.e. from 3,500 to 36,500 naira per annum. The 2 bedroom flat was also seen to be stable from 1997 to 1999 i.e. 3,500 naira per annum and later started to increase from 2000 to 2016 i.e. from 4,200 to 75,000 naira per annum. Finally, the rental value of 3-bedroom flat was seen to have kept increasing from 1997 to 2016 i.e. from 4,500 to 100,000 naira per annum. It was generally observed that between 1997 and 1998 the rental values of residential properties in the study area for all accommodation types had remained unchanged within the period. This is congruent with similar studies such as Ankele, Dabara, Gombo, Lawal & Agidi(2016). This could be adduced to the fact that inflation was relatively stable at this period and the Nigerian economy was also stable. However from the year 2000 to 2016 there was gradual increase in the rental values of all the accommodation types in the study area. Figure 1 presented the graphical view of the annual rental values of the selected accommodation types in Ede.

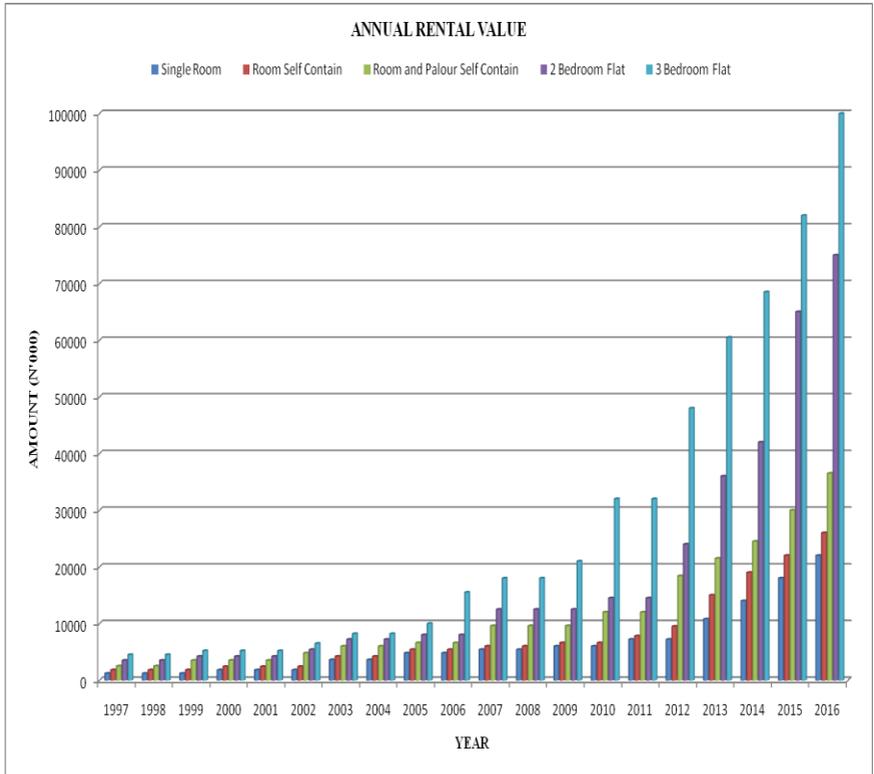


Fig 1: Average annual rental values of residential accommodation in Ede from 1997 – 2016

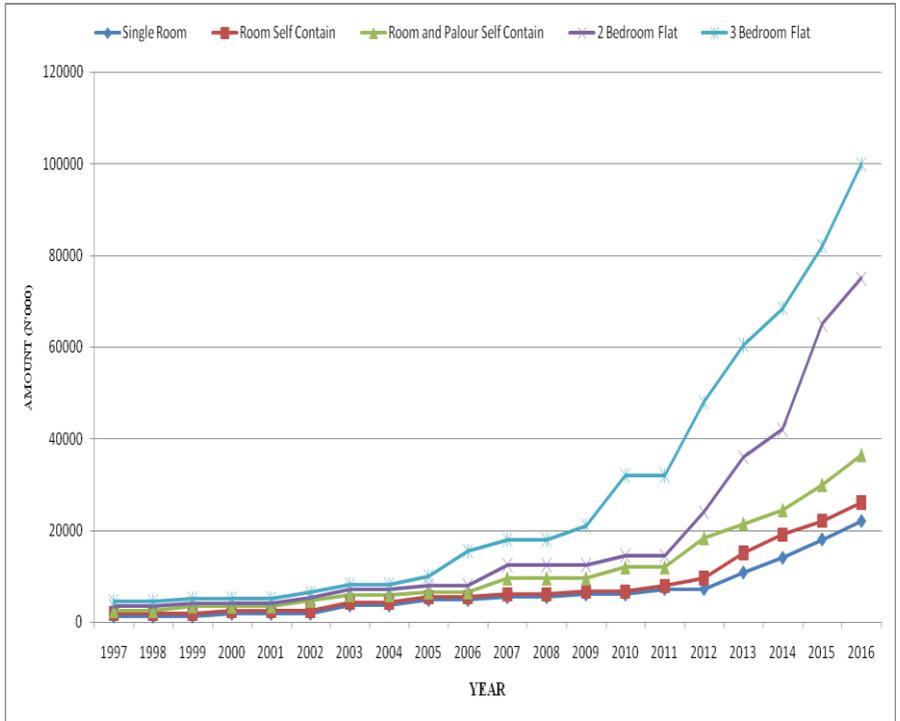


Fig 2: Graphical representation of average annual rental values of residential accommodation in Ede from 1997 to 2016.

It can be clearly seen from Figures 1 and 2 that the rental value of residential accommodation in Ede was stable from 1997-1999 for the selected accommodation types. It was observed that there was a slight increase in the rental values between 2000 and 2002. However, between the year 2003 to 2016 there was a high consistent increase in the annual rental values of all the selected accommodation types. This is in agreement with previous studies such as Dabara, Omotehinshe, Okunola, Ankeli, & Adaranijo (2016)

Table 2: Average Annual Building Material Prices (in Naira) in Ede from 1997 – 2016.

YEAR/ Materials	Cement (per Bag)	Sharp Sand (per load)	Plastering Sand (per load)	Granite (per load)	Reinf. Bar 20mm (per length)	Roofing Sheet (per Bundle)
1997	600	1500	1500	1500	4000	6000
1998	700	1500	1500	1500	4000	6000
1999	460	2500	2500	1500	4000	6000
2000	500	2500	2500	1500	4000	6000
2001	650	2500	2500	2000	4000	6000
2002	600	2500	2500	2000	4000	6000
2003	700	2500	2500	2000	4000	6500
2004	1020	4000	4000	2000	4000	6500
2005	1200	4000	4000	2500	5000	6500
2006	1550	4000	4000	2500	5000	7000
2007	1700	4000	4000	2500	5000	7000
2008	1700	4000	4000	2500	5200	7000
2009	1700	4000	4000	3000	5200	7000
2010	1500	4000	4000	3000	5200	7000
2011	1550	5000	5000	3000	5200	7400
2012	1550	5000	5000	3400	5200	7500
2013	1650	5000	5000	3400	5200	7500
2014	1650	5000	5000	3400	5200	9500
2015	1650	5000	5000	3400	5200	9500
2016	2000	7000	7000	4000	5200	14800

Source: Field survey 2017

Note: A tipper load is equivalent to 5 tons

From Table 2, it was observed that there was a consistent increase in the price of cement from ₦600 in 1997 to ₦2000 in the year 2016. There was also a gradual but consistent increase in the price of sharp sand from ₦1,500 in 1997 to ₦7,000 in 2016. It was also revealed that there was a steady increase in the price of plastering sand which was sold for ₦1,500 in 1997 but however rose to ₦7,000 in 2016. The price of granite was stable between 1997 and 1999 i.e. ₦1,500, it increases in year 2000 to ₦2,000 and was stable for the next 4 years i.e. 2001 to 2004. It increased to ₦2,500 in the year 2005 and was stable at that price for the next 4 years i.e. 2005 to 2008 but however later increased to ₦3,000 from the year 2009 to 2016. The price of reinforcement bar was observed to be stable from 1997 to 2004 i.e. ₦4,000 per ton, and it increases in the year 2005 to ₦5,000. The price of roofing sheet per bundle was ₦6000 between 1997 and 2002. It later increased in 2003 to ₦6,500 and this price was stable for the next 3 years i.e. from 2002 to 2005. It increased to ₦7,000 in the year 2006 and was stable at this price till the year 2010; it was observed that there was a steady and consistent increase from ₦7,400 in 2011 to ₦14,800 in 2016. Figures 3 and 4 graphically show the trend of building material prices in the study area within the study period.

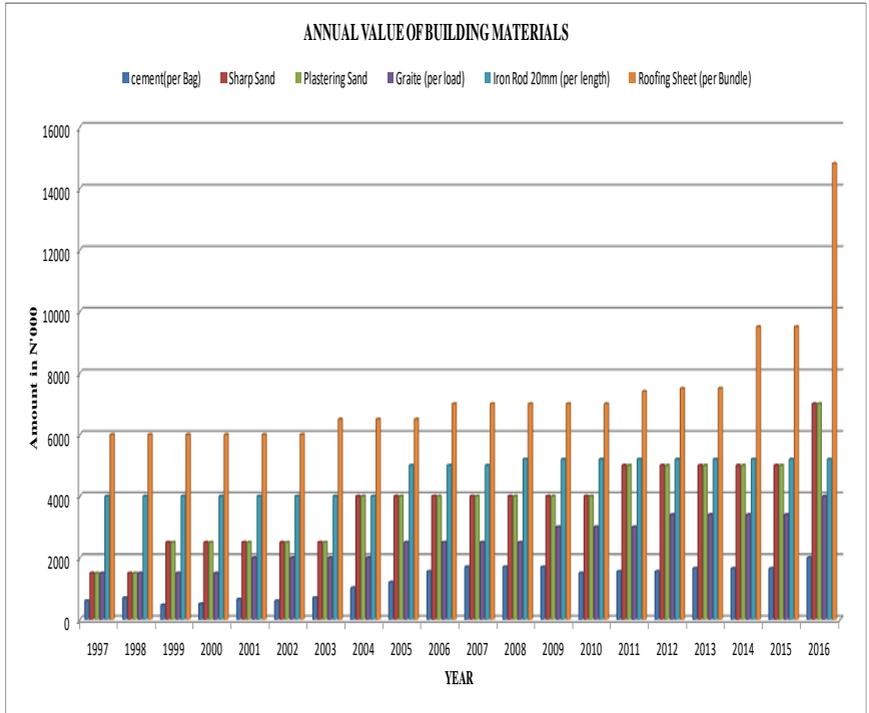


Fig. 3: Bar Chart showing Average Annual Building Materials prices in Ede from 1997 – 2016.

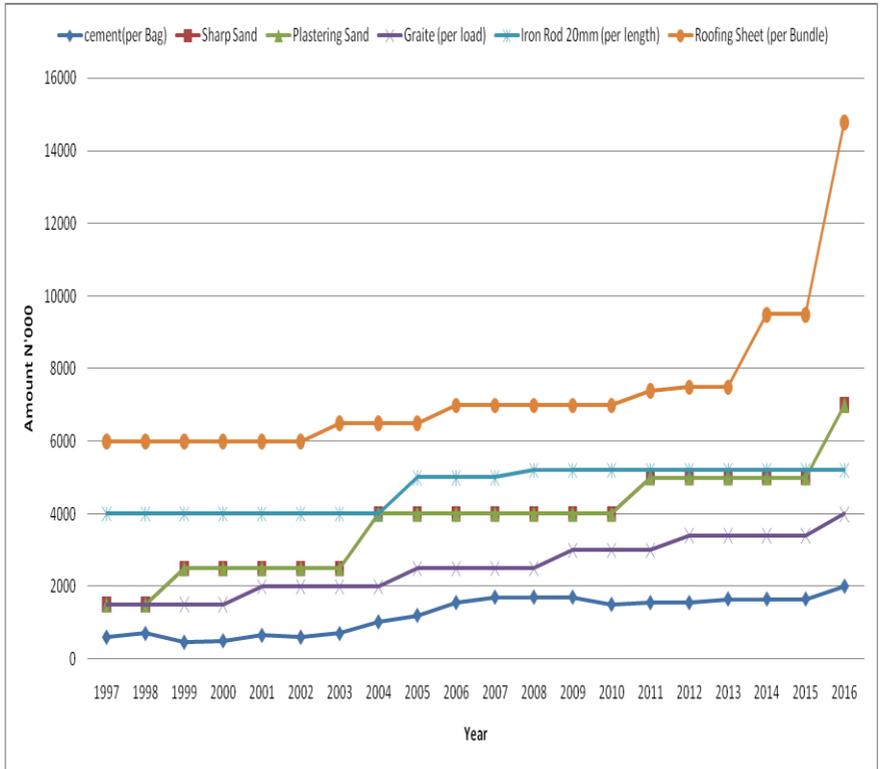


Fig. 4: Graphical trend of Average Annual Building Material prices in Ede from 1997 – 2016.

Figures 3 and 4 show the trend in building material prices in the study area. There was some level of volatility and fluctuations in the prices of the selected building materials with the trend showing a consistent and steady increase from 1997 to 2016. The increase could be attributable to the inflation changes in Nigeria within the study period. The data on rental values of residential properties in Ede and the building material prices in the study area were used to determine the relationship between the two variables. The results were presented in Tables 3 to 7.

Table 3: Descriptive statistics

Variable/Statistic	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
Rental Value	2700	51900	14302	143.320	1.554	1.606
Cement	460	2000	1231.5	514.406	-0.327	-1.624
Sharp Sand	1500	7000	3775	139.522	0.194	0.059
Plastering Sand	1500	7000	3775	139.522	0.194	0.059
Granite	1500	4000	2530	768.526	0.149	-1.07
Reinf. Bar	4000	5200	4690	582.101	-0.399	-1.998
Roofing Sheet	6000	14800	7335	203.700	1.925	1.874

Source: Analysis of survey data 2017

Table 3 shows the minimum, maximum and mean values of cement, sharp and plastering sand, granite, reinforcement bar, roofing sheet and rental values in the study area within the study period. Similarly the standard deviation as well as Skewness and Kurtosis were equally shown.

Table 4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig.
1	.957	.917	.887	4819.584	.917	30.804	5	1	.000

a. Predictors: (Constant), Roofing Sheet, Reinf. Bar, Plastering Sand, Granite, Cement

b. Dependent Variable: Rental Value

Source: Analysis of survey data 2017

Table 5: ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	35.874	5	71.975	30.804	.000
Residual	32.126	14	23.795		
Total	39.000	19			

a. Dependent Variable: Rental Value

b. Predictors: (Constant), Roofing Sheet, Reinf. Bar, Plastering Sand, Granite, Cement

Source: Analysis of survey data 2017

Table 6: Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
(Constant)	-413.983	259.844		-1.593	.134
Cement	-6.685	8.367	-.240	-.799	.038
Sharp Sand	-4.875	5.564	.349	.275	.047
Plastering Sand	-1.421	2.610	-.138	-.545	.595
Granite	13.510	5.260	.724	2.568	.022
Reinf. Bar	.773	7.504	.031	.103	.919
Roofing Sheet	4.281	1.094	.607	3.913	.002

Source: Analysis of survey data 2017

Table 4 shows the regression model summary result, which indicates a high positive correlation of 0.957 between all the variables. Table 5 tests the overall significance of the coefficients (β 's). The results indicated that the overall model is statistically significant, [F (5, 14) = 30.804, P = 0.000]. Table 6 presents the coefficients, the Enter Method was employed in the analysis (this will cause all predictors to be included in the output). Looking at the significance values of the individual β 's, it is revealed that of all the predictors, only the following critical factors significantly predicts rental values of residential properties in the study area: cement, sharp sand, granite and roofing sheet, with $t = -0.799, p = 0.038 < 0.05$; $t = 0.275, p = 0.047 < 0.05$; $t = 2.568, p = 0.022 < 0.05$; and $t = 3.913, p = 0.002 < 0.01$ respectively, hence they are statistically significant (note that 0.05 and 0.01 above indicates the significance levels at 5% and 10% respectively). The above analysis could be interpreted that there is a strong significant relationship between building material prices and the rental values of residential properties in the study area with prices of roofing sheet being the strongest rental predictor (0.002) followed by prices of granite (0.022), cement (0.38) and then sharp sand (0.47). Plastering sand (0.595) and reinforcement bars (0.919) were found to be less significant predictors of rental values in the study area. This could be because most of the houses in Ede were built using sand excavated on site by laborers instead of buying; similarly, most of the buildings are bungalows which require little reinforcement.

5. Conclusion

This study examined the relationship between building material prices and the rental values of residential properties in Ede, Nigeria between 1997 and 2016. The study found that there was a steady and consistent increase in both building material prices and rental values of residential properties from 1997 to 2016 in the study area. The study further showed that there was a strong significant relationship of 0.957 between building material prices and the rental values of residential properties in the study area with prices of roofing sheet being the strongest rental predictor (0.002) followed by granite (0.022), cement (0.38) and then sharp sand (0.47). As prices of these building materials increases, it was observed that there was also an increase in the rental values of residential properties in the study area within the study period. It was recommended that stakeholders improve on indigenous building technology

and encourage the use of local / traditional materials for the construction of houses which are cheaper to purchase. Similarly, there should be systematic reduction in the country' importation of foreign building materials which are more often than not very expensive.

References

- Abdulrahim, A.H. (2016). Rising trend in construction cost and housing price. *Journal of advanced research and management studies*, 3(1), 94-104.
- Adewusi, A. O. & Oladokun, T. T. (2017). Longrun relationship between building material prices and rental values of commercial properties in Ibadan, Nigeria. In: B.T. Aluko, H. A. Odeyinka, A. O. Ilesanmi, B. A. Ademuleya and O. P. Daramola. Proceedings of Environmental Design and Management International Conference (EDMIC 2017), 22nd to 24th May 2017. 728-738 at the Obafemi Awolowo University Conference Center, Ile-Ife, Osun State Nigeria.
- Akanni, P.O. (2006). Small Scale Building Material Production in the context of the Informal economy. *The Professional Builders*, 5(3), 13-18.
- Akanni, P.O. (2014). Implication of rising cost of building materials in Lagos State, Nigeria. *HBRC Journal*. Advanced Online Publication. Doi: 10.1177/2158244014561213
- Ankeli, I. A., Dabara, I. D., Oyediran, O. O., Guyimu, J & Oladimeji, E. J. (2015). Housing Condition and Residential Property Values in Ede, Nigeria. Proceedings of the International Journal of Arts and Sciences Conference, 2nd to 5th December 2014. Katholische Akademie der Erzdiözese Freiburg Germany, 08 (01), 53- 61. Available online at <http://www.universitypublications.net/proceedings/0801/pdf/DE4C227.pdf>
- Ankeli, I. A., Dabara, I. D., Gombo, M. D., Lawal, K. O. & Agidi, M. O. (2016). Residential housing rental values and infrastructural development in Osogbo, Nigeria. Proceedings of the Conference of the International Journal of Arts and Sciences, 1st to 4th December 2015 at the University of Freiburg, Germany. Katholische 09(01), 29 – 40. Available online at <http://universitypublications.net/proceedings/0901/html/toc.html>

- Ankeli, I. A., Dabara, I. D., Omotehinshe, J. O., Omoyosi, G. A. & Agidi, O. M. (2017). Evaluation of the causes and consequences of tenant eviction in Ede metropolis, Nigeria. *International Journal of Arts and Sciences*, 9(4), 149 – 158. Available online at <http://www.universitypublications.net/ijas/0904/pdf/DE6C407.pdf>
- Anosike, P. (2009). Nigerians groans under high cost of building material. The Daily Sun, pp. 38-39.
- Anthony, O. A. (2012). Examination of the determinants of housing values in urban Ghana and implications for policy makers. *Journal of African Real Estate Research*, 2(1), 58-85.
- Dabara, I.D., Olatoye, O.&Okorie, A. (2012). An examination of the tenancy agreement as a shield in property management in Nigeria. *International Journal of Business Administration*. 3(4), 54-66. Available online at <http://www.sciedu.ca/journal/index.php/ijba/article/view/1474/725>
- Dabara, I. D, Lawal, K. O., Adebowale, P. A. & Ankeli, I. A. & Gambo, M. J. (2016). Infrastructural facilities and the rental values of residential properties in Osun, Nigeria. *International Journal of Business and Management Studies*, 05(01), 87 – 96. Also available online at <http://universitypublications.net/ijbms/0501/html/toc.html>
- Dabara, I. D, Omotehinshe, J. O., Okunola, S. A., Ankeli, I. A. & Adaranijo, L. O. (2016). Real estate investments and the inflation-hedging question: A review. *International Journal of Business and Management Studies*, 05(01), 187 – 196. Also available online at <http://universitypublications.net/ijbms/0501/html/toc.html>
- Iwaju, B.C. (2015). Local Building Materials: Affordable strategy for housing the urban poor in Nigeria. *International Conference on Sustainable, Design, Engineering and Construction*, 42 – 49. Retrieved from <https://core.ac.uk/download/pdf/82694510.pdf>
- Jagboro, G. O., Owwoeye, C. O. (2004). A model for predicting the prices of building materials using the exchange rate in Nigeria. *The Malaysian Surveyor*, 5(6), 9-14.

- Murungi, R.K. (2014). An Investigative Study on the Factor Causing Price Changes of Residential Houses in Nairobi: A research project presented in Partial Fulfillment of Award of Bachelor's Degree in Real Estate, Department of Real Estate and Construction Management, University of Nairobi, Kenya.
- Omotehinshe, O.J., Dabara I. D & Guyimu, J. (2015). Design inadequacies and the maintenance of university buildings in Ile-Ife, Nigeria. *Journal of Environment and Earth Science*. 5(2), 175-187. Available online at <http://www.iiste.org/Journals/index.php/JEES/article/view/19478/19935>
- Oyeniya K. (2016). Trend in Building Materials Inflation of Construction Project in Kaduna. Being a Project Presented in partial Fulfillment of the Requirement for the Award of Bachelor's Degree. Department of Building, University of Kaduna.
- Udosen, J. U., & Akanni, P. O. (2010). A factorial analysis of building material wastage associated with construction projects. *Journal of Civil and Environmental Systems Engineering*, 11(2), 81-90.