

# Housing Construction Materials and House Rent Trends in Ede, Nigeria

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## Abstract

The study examines the relationship between housing construction material prices and house rents in Ede town, Nigeria, from 2002 to 2020 to provide information for investment decisions. The research was conducted using a questionnaire survey. The study's population consists of landlords, estate surveyors and valuers, real estate agents, and building material suppliers/sellers in the study area. Data obtained was analysed employing descriptive and inferential statistical tools. The results showed that house rents and building material prices maintained an upward trend within the study period. Changes in house rents correlated with some percentage changes in the prices of selected building materials (cement, roofing sheet, reinforcement bar, sand and tiles). However, all the correlations are not statistically significant at 0.05 level. The regression model's coefficient of determination R-squared revealed that building material costs explained about 43.6% of the variation in house rents. This result implies that factors other than building material costs may influence changes in house rents. The study's finding will be valuable to stakeholders making real estate investment decisions in the study area and similar developing economies in general.

**Keywords:** building materials; real estate market; rental value; residential properties.

## 1. Introduction

Investments in the rental sector of the residential property submarket are common and increasingly popular in Nigeria's urban areas, such as Ede town in Osun state. This is mainly due to rising demand and investors' prospects for secured investment returns (Flint-Hartle & de Bruin, 2000). Therefore, the size and scale of the residential property market make it an attractive and lucrative sector for many property investors. However, despite the increasing investment in the residential

property submarket, demand for rental properties in Ede has continued to surpass the supply (Chiwuzie *et al.*, 2019). This could be attributed to the general housing shortage reported in the African continent (Abere *et al.*, 2018). The Nigeria Housing Finance Programme (2014) puts the country's housing deficit at 17 m units. Also, the home-ownership statistics in Nigeria reveal that only about 10% of Nigerians are home-owner while 90% depends on the rental market (Soludo, 2007). This situation typically pushes up demand for rental housing with the attendant rise in rents. The housing market in Ede has evolved remarkably with the establishment of the Federal Polytechnic Ede in 2002 and subsequently, the Adeleke University and Redeemer's University. The increased economic activities prompted by the siting of tertiary educational institutions within Ede town have increased demand for residential property, especially for renting. House rents in Ede town have witnessed consistent upward growth over the years due to increased demand and inadequacy of supply (Chiwuzie *et al.*, 2019).

The inequality between housing supply and demand has been generally attributed to various factors, including land supply, regulatory barriers, time lags and housing construction costs (Somerville, 1999; Hlavacek & Komarek, 2009). It has been observed that in emerging property markets of mainly African nations such as Nigeria, housing construction costs have a significant impact on the delivery of housing units in the property market (Chiwuzie & Dabara, 2021). For this study, housing construction cost is the aggregate of the sum spent on land acquisition and preparation, building materials' procurement, labour, professional services and incidental expenses incurred in building construction. Mansur *et al.* (2016) observed that housing construction materials' cost (building material prices) significantly impacts housing construction cost. In Nigeria, building materials' costs amount to about 60% of the total housing expenditure (Adedeji, 2012). Thus, the rising prices of building materials usually cause an increase in total housing construction costs (Nega, 2008).

Furthermore, upward rent trends have always posed significant concerns to renters the world over. Most renters use a good proportion of their income as rent on residential accommodation (Dabara *et al.*, 2012; Bangura & Lee, 2017; Olatunji *et al.*, 2020). Hence, costly and non-affordable rents could lead to middle and low-income families being priced out of the market for urban housing accommodations. Researchers have conducted studies to find out the significant factors responsible for rising trends in house rents. Udoekanem *et al.* (2014) posited that a rise in the rental

value is a function of many variables, among which demand and supply play a vital role. Obeng-Ahenkora & Danso (2018) also confirmed that market-related factors are vital influencers in pricing decisions for real property transactions. Thus, the rental value of a property is said to depend on the price mechanism. The price mechanism is a system where the demand and supply forces determine the changes in the price of products. This, therefore, implies that the expectation and ability to get rising rental values could be primarily attributed to the interactions of demand and supply in the property market. For example, within the rental residential properties' submarket, an excess supply of houses available for rent and not enough demand from tenants will decrease rental values. Conversely, high demand for rental property and not enough rental properties in the market will usually result in an upturn for rental values for available properties. Thus, relative rental values and changes in rental values in the property market reflect the forces of demand and supply.

Meanwhile, earlier studies in Nigeria, such as Okoronkwo (2011) and Ihuah (2015), posited that the increase in the price of building materials raises the total construction cost, which invariably is passed as rent on the property upon completion, leading to rising rents on residential properties. There is no doubt that an increase in the price of building materials will raise the total development cost of residential property. After all, the "cost of building materials is the major contributory factor to the cost of construction aside land and labour cost" (Miller et al., 2014). However, rental values are determined by forces of demand and supply in the property market. This could be attributed to the influences of the stakeholders' actions and other contiguous factors (Radzewicz, 2013); inflationary economy (Anosike, 2009); size of urban population (Yaun et al., 2017 Miller et al., 20) and not necessarily housing construction costs (and by extension rising building materials prices). Samy (2015) confirmed that economic variables (national macroeconomic factors) and non-economic variable (location, neighbourhood and physical/structural features) significantly influence rental fluctuations in the housing markets.

Therefore, it is against the background that increases in the price of building materials result in rising rental values of residential properties; contrary to the expected price mechanism that this study is undertaken. Unlike earlier studies in this field, this study empirically explores how prices of building materials related to house rents in the study area. Specifically, this study analyses the

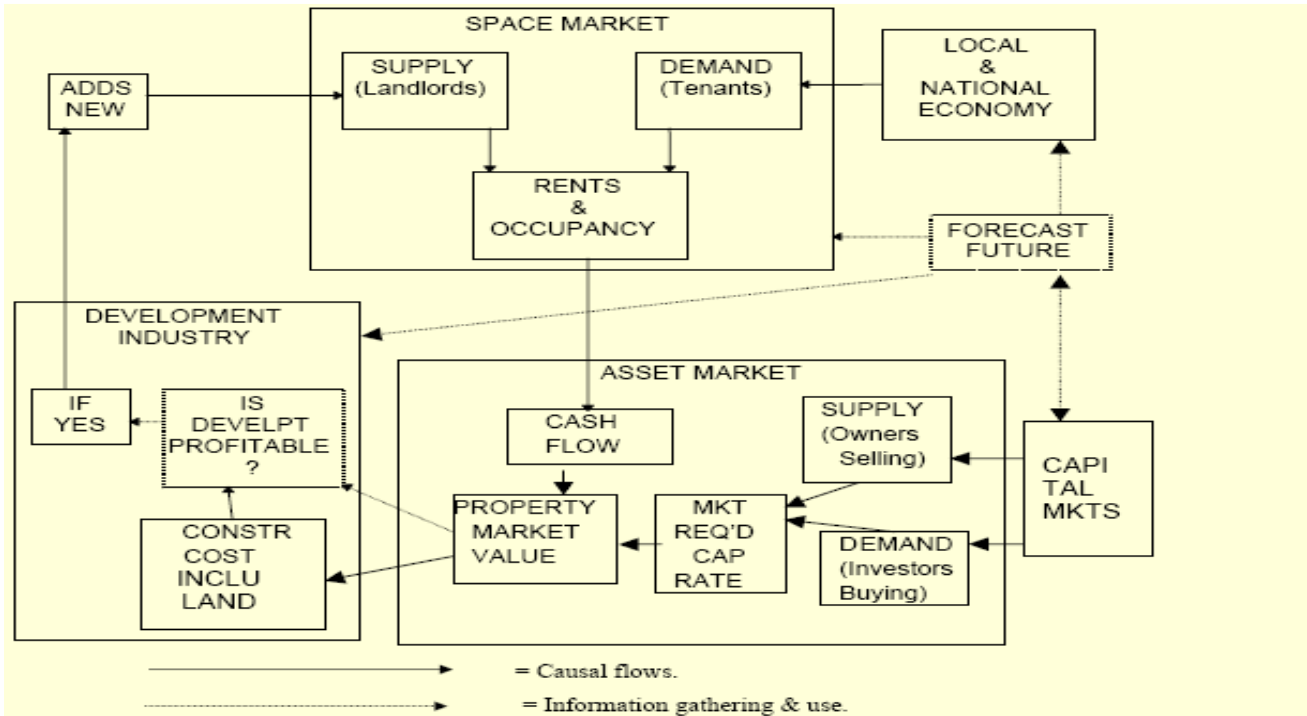
trends in building material prices and rentals residential properties in Ede, from 2002 to 2020; and assesses the relationship between the variables. The information obtained from analysing the influences of the individual building material prices on rental values will guide investors in making informed investment decisions. Also, the study area currently being investigated is an emerging property market which has great investment potentials for both domestic/foreign as well as institutional/individual investors' consideration. This research is structured as follows: the introductory part is followed by a brief review of the operation of the housing market and empirical literature on the subject matter. The following 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. The operation of the housing market: A review**

The property market and, by extension, the residential accommodation presents a rather peculiar complexity. The main principle underpinning studies in the housing market is the space and capital market theory. A housing model proposed by Geltner et al. (2007) links the housing market with other exogenous systems (local and national economies and the capital markets), as shown in Figure 1. Geltner et al. (2007) model demonstrate the housing market's operation as three essential components: space, asset, and capital markets. These components represent independent market areas where prices are determined through demand and supply interactions. The space market involves the interaction between housing demanded by renters and housing stock supplied by the house owners. The outcome of the demand-supply interface predicts the levels of rents, occupancy and vacancy in the market. The national and local economies affect the quantity of housing space demanded in the space market. For example, an increase in real wages might encourage the formation of new households, thus, pushing up demand for housing space.

Moreover, rent established in the space market is crucial in determining the demand for house assets within the asset market (Viezer, 1999). The cash flow in the form of rents interacts with the capitalisation rates required by investors. The required capitalisation rates in the asset market are, in turn, affected by the opportunity cost of capital, rental growth expectation and perceived risk (Geltner et al., 2007). Furthermore, there is a link between space and asset markets for user's rights as different from investor's rights. The user's and investor's rights in property are mediated

through the development market to meet the ever-changing market requirements of these participants. Keogh (1994) observed that the market changes in users and investors requirements trigger construction activity, bringing new user and investors rights into the market. Geltner et al. (2007) further remarked that construction would usually ensue if house rent can offset the long-run marginal cost of housing construction.



Source: Geltner et al. (2007).

**Fig.1: A model of housing market: interaction of the space, asset and the development markets with other exogenous systems.**

Aside from the preceding property market model, several studies have examined the link between house rent and housing construction costs (and, by extension, building material prices). In a study conducted in the USA, Abraham & Hendershott (1996) found that construction costs significantly influence property prices across US metropolitan property markets. Jud and Winkler (2002) also found that an increase in property price positively responds to construction costs in 130 urban areas across the United States. However, the study by Jud & Winkler noted that lagged construction cost variable was statistically significant, while the current construction cost variable was not. Somerville (1999) assessed the link between building material costs and the supply of new housing units in Texas. The result showed a significant relationship exists between housing supply and

construction cost in the study area. Hlavacek & Komarek (2009) reported a weak significant relationship between construction costs and property prices in the Czech Republic. The result in Hlavacek & Komarek also suggested that the relationship was negative in some periods because property price shows little variability over time. Tsai (2012) explored how construction cost and rental price indexes were related to the housing price in the Taiwan housing market. The result suggested the existence of a nonlinear relationship among the indices. Abdulrahim (2016), on the other hand, 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 a survey. The data were analysed using the Average Index (AI) and Relative Compliance Index (RCI). The study revealed that the housing development costs were influenced by fluctuations in building material prices.

In Kenya, Murungi (2014) examined factors determining price changes of residential houses in Nairobi from 2008 to 2012. Data obtained for the study were analysed using correlations and regression models. The study showed that increasing demand for land and construction material costs were the most potent factors determining housing prices in Nairobi. In another study, Miregi and Obere (2014) reported that building cost does not influence the existing property values in Kenya. Okoronkwo (2011) examined the influence of building material costs on residential property rents in Owerri, Nigeria, using descriptive statistical tools. The result indicated that owners, contractors and tenants generally perceive that building costs influence the rent paid on residential properties in Owerri. Olagunju *et al.* (2014) compared the price index of house rents in Ilorin, Nigeria, with the prices of building materials such as cement and blocks from 2004 to 2013. The study employed a simple aggregate index in the analysis of the collated data. The result from the study revealed that increasing rental values of residential properties correlated with some percentage increases in the prices of building materials in the study area. Ihuah (2015) also identified eleven dynamics that were significant influencers of the increase in costs of building materials. These dynamics also underline the consistent increase in residential properties' rent in the area. The study's finding further revealed that the cost of building materials was consistently increasing during the ten-year study period. Also, the increase in construction costs translated to an increase in the rent payable on the property.

The results of local and foreign studies on the link between construction costs (building material costs) and house rent have presented divergent results. At the same time, most of the studies revealed the existence of a relationship between the variables. However, there is a lack of consensus on the direction or the strength of the relationship. Also, there exist a dearth of empirical studies on the connection between building material cost and house rent in the Nigerian housing market. Therefore, this study will provide new insight by extending knowledge on building material prices and house rents relationships from the Nigerian property market context. This study would also generate valuable comparative evidence across distinctive property markets.

### **3. Methodology**

The data for this study comprises annual prices of building materials and rental values of five residential properties categories in Ede town, Nigeria, for the period 2002 - 2020. The building materials used in this study were obtained from existing literature. Construction Industry Development Board of Malaysia [CIDB] (2005) reported that cement, sand, reinforced steel (BRC), aggregate and bricks are most often than not prone to price fluctuations. A preliminary investigation conducted using factor analysis revealed that cement, sand, reinforcement bars, tiles and roofing sheets are the primary consideration in the study area. Hence, their inclusion in this study. Furthermore, the residential property categories include single rooms with shared toilet and kitchen facilities; studio apartment commonly referred to as a single room 'self-contained' (a room attached with toilet and kitchen facilities); 1- bedroom apartment referred to as a room and parlour 'self-contained' (a bedroom and living room with kitchen and toilet facilities attached); 2 and 3- bedroom flats. Areas covered for this study include prime locations (Oke-Gada, Agbale and country home) and nonprime locations (Ededimeji and Okeresi) in Ede.

The prices of building materials were sourced from building material suppliers/sellers in the study area. The choice of material suppliers/sellers was based on having a localised study (since prices of building materials and rental values of residential properties vary in different locations). On the other hand, the rental data were obtained from landlords, estate surveyors and valuers, real estate agents who rented out residential properties within the study period. A survey was conducted to obtain specific data from the study's population accordingly. In all, a total of three hundred and thirteen (313) copies of questionnaires were distributed. In order to obtain data on market rental

values of the selected property types in the study area, random sampling was employed to select two hundred and fifty (250) landlords. However, out of the 250 copies of the questionnaire administered to the landlords, only one hundred eighty-six (186) were retrieved. In line with the sample size suggested by Israel (2002), for a small population of 200 or less total enumeration survey was employed for the estate surveyors and valuers, real estate agents and building material suppliers/sellers in the study area. Consequently, seven (7) copies of questionnaires were administered on Estate Surveyors and Valuers and five (5) copies of questionnaires were retrieved. Similarly, 32 copies of questionnaires were administered to real estate agents, and 27 were retrieved. Furthermore, twenty-four (24) copies of questionnaires were administered to building material suppliers/sellers to source data on building material prices and eighteen (18) copies of questionnaires were retrieved. The total number of questionnaires retrieved was 236, representing a 75.4% response rate.

The data elicited from the respondents were analysed using median and multiple regression. As a precursory step to multiple regression, the data sets were transformed through first-differencing to avoid spurious correlation. As with time-series data, the first-difference of both house rents and building material prices was taken to measure if the change from one year to the next correlates to the change in the other variable's year-to-year results. Next, both variables were subjected to multiple regression analysis to measure the strength and direction of the relationship between the variables.

The regression equation adopted is as follows:

$$Y = a + b_1CEM + b_2CSAN + b_3FSAN + b_4RB + b_5RSHT + b_6TILE \quad 1$$

Where:

Y = Rental Value of residential properties (RV)

CEM = Cement ( $X_1$ )

CSAN = Coarse sand ( $X_2$ )

FSAN= Fine sand ( $X_3$ )

RB = Reinforcement bar ( $X_4$ )

RSHT = Roofing sheet ( $X_5$ )

TILE = Tiles ( $X_6$ )



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

"a" is an error term that 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 presents and analyses data collected from the respondents. The median annual rental values of the selected accommodation types and the prices of selected building materials from 2002 to 2020 were analysed to determine the relationship between the variables in the study area.

##### Trends in building material prices and house rents in Ede, from 2002 to 2020

Table 1 presents the median annual rental values of residential properties in the study area within the study period. The median rental level per annum was used in this study because it is less affected by properties that skew the perceived rents in a particular neighbourhood. The median rental level for each year over the study period, as presented in Table 1, indicates a continuous increase in house rents in the study area. The upward trend exhibited by the rents agrees with Chiwuzie et al. (2019) that rents in Ede town have been rising.

**Table 1. Median Annual Rental Values (in Naira) of Residential Properties in Ede from 2002 – 2020 (USD equivalent in parenthesis).**

Type of property/ Year	Single Room	Room Self Contain	Room and Parlor Self Contain	2 Bedroom Flat	3 Bedroom Flat
2002	1750(4.3)	2350(5.7)	4850(11.8)	5800(14.1)	7000(17.0)
2003	3200(7.8)	4150(10.1)	6500(15.8)	7500(18.2)	8500(20.7)
2004	3400(8.3)	4200(10.2)	6500(15.8)	7500(18.2)	8500(20.7)
2005	4600(11.2)	5450(13.3)	7000(17.0)	8000(19.5)	11000(26.8)
2006	4600(11.2)	5450(13.3)	7000(17.0)	8000(19.5)	16000(38.9)
2007	5250(12.8)	6000(14.6)	9600(23.4)	13000(31.6)	18500(45.0)
2008	5300(12.9)	6300(15.3)	9600(23.4)	13000(31.6)	18500(45.0)
2009	5800(14.1)	6550(15.9)	9600(23.4)	13000(31.6)	21500(52.3)
2010	5800(14.1)	6550(15.9)	12000(29.2)	15000(36.5)	31500(76.6)
2011	6800(16.6)	7725(18.8)	12500(30.4)	15000(36.5)	31500(76.6)
2012	7080(17.2)	9350(22.7)	17900(43.6)	23380(56.9)	47500(115.6)

2013	10360(25.2)	14750(35.9)	20900(50.9)	35200(85.6)	59900(145.7)
2014	13550(32.6)	18800(45.7)	23750(57.8)	41700(101.5)	68100(165.7)
2015	17200(41.9)	21300(51.8)	29400(71.5)	63850(155.3)	81700(198.7)
2016	21480(52.3)	25600(63.3)	36100(87.8)	74600(181.5)	99800(242.8)
2017	24700(60.1)	29400(71.5)	39800(96.8)	86320(210.0)	112750(313.2)
2018	27600(67.2)	33800(82.2)	45300(110.2)	99200(241.4)	125900(349.7)
2019	29880(72.7)	36600(101.7)	49270(119.9)	111675(271.7)	139370(387.1)
2020	31200(75.9)	49600(137.8)	54700(133.0)	118400(288.1)	145800 (405)

Source: Field survey, 2021.

Table 2 presents the median annual prices of building materials in the study area within the study period. Table 2 shows that the prices of all the selected building materials increased consistently within the study period.

**Table 2. Median Building Material Prices (in Naira) in Ede from 2002 – 2021 (USD equivalent in parenthesis).**

Year	Cement (per Bag)	Coarse Sand (per ton)	Fine sand (per ton)	Reinf. 20mm (per length)	Bar (per length)	Roofing Sheet (per Bundle)	Tiles (per M <sup>2</sup> )
2002	700 (1.7)	500(1.2)	500(1.2)	4100(9.9)	6500(15.8)	1700(4.1)	
2003	800(1.9)	500(1.2)	500(1.2)	4150(10.1)	6500(15.8)	1700(4.1)	
2004	950(2.3)	600(1.5)	600(1.5)	4200(10.2)	6500(15.8)	1800(4.4)	
2005	1150(2.8)	600(1.5)	600(1.5)	5100(12.4)	7000(17.0)	1800(4.4)	
2006	1500(3.6)	800(1.9)	800(1.9)	5150(12.5)	7150(17.3)	1850(4.5)	
2007	1700(4.1)	800(1.9)	800(1.9)	5150(12.5)	7200(17.5)	2000(4.9)	
2008	1750(4.3)	850(2.7)	850(2.7)	5150(12.5)	7260(17.70)	2000(4.9)	
2009	1780(4.3)	950(2.3)	950(2.3)	5200(12.6)	7300(17.8)	2150(5.2)	
2010	1550(3.8)	950(2.3)	950(2.3)	5220(12.7)	7400(18.00)	2150(5.2)	
2011	1550(3.8)	1050(2.6)	1050(2.6)	5220(12.7)	7500(18.20)	2300(5.6)	
2012	1600(3.9)	1050(2.6)	1050(2.6)	5220(12.70)	7500(18.2)	2300(5.6)	
2013	1650(4.0)	1050(2.6)	1050(2.6)	5250(12.8)	9500(23.1)	2600(6.3)	
2014	1650(4.0)	1050(2.6)	1050(2.6)	5250(12.8)	9500(23.1)	2600(6.3)	
2015	1700(4.1)	1050(2.6)	1050(2.6)	5250(12.8)	14800(36.0)	2600(6.3)	
2016	2000(4.9)	1425(3.5)	1425(3.5)	5300(12.9)	15400(37.5)	3200(7.9)	
2017	2500.(6.1)	1425(3.5)	1425(3.5)	5650(13.7)	15000(36.4)	3200(7.9)	
2018	2550.(6.2)	1425(3.5)	1425(3.5)	6100(14.8)	15500(37.7)	3600(8.8)	
2019	2550(6.2)	1425(3.5)	1425(3.5)	6650(16.2)	15600(37.9)	3600(8.8)	
2020	2800(6.8)	1550(3.8)	1550(3.8)	7200(17.5)	17500(42.6)	4000(9.7)	

Source: Field survey 2021.

### **Relationship between building material prices and rental values of residential properties in Ede from 2002 to 2020**

The relationship between the prices of selected building materials and the market rent of residential properties was analysed using a multiple regression model. However, before determining the relationship between the variables, the data set was first-differenced. This was to ensure that the relationship between the variables was efficiently captured. The summary of descriptive statistics of variables and the results of the multiple regression analysis are presented in Tables 3 and 4, respectively.

**Table 3. Summary of descriptive statistics of variables.**

<b>Variables</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Min.</b>	<b>Max.</b>
Rent	28841.4737	25384.97	4350.00	79940.00
Cement	1761.5000	619.98	700.00	2800.00
Coarse sand	1002.6316	330.39	500.00	1550.00
Fine sand	1002.6316	330.39	500.00	1550.00
Reinf. Bar	5290.0000	756.81	4100.00	7200.00
Roofing Sheet	10032.1053	4022.92	6500.00	17500.00
Tiles	2481.5789	714.18	1700.00	4000.00

Source: Analysis of survey data.

**Table 4. Regression analysis of building material prices and house rents**

<b>Variable</b>	<b>Beta</b>	<b>Std. error</b>	<b>t</b>	<b>Sig.</b>
Cement	.176	105.903	2.378	.495
Coarse Sand	-.357	5.082	.703	.284
Reinforcement. Bar	.027	10.691	-1.121	.912
Roofing Sheet	.446	2.971	.113	.064
Tiles	.521	.547	2.043	.096

R = 0.680

R<sup>2</sup> = 0.436

F = 2.068

Sig. = 0.140

Source: Analysis of survey data.

The results in Table 4 showed the strength of the linear relationship between house rents and each of the selected building material prices. In line with the finding in Olagunju *et al.* (2014), the beta value in Table 4 demonstrates that changes in house rents correlated with some percentage changes in building material prices. For example, the house rent beta coefficient ( $\beta$ ) on cement is 0.176 with a P-value of 0.495; sand is - 0.357, with a P-value of 0.284; reinforcement bar is 0.027, with a P-value of 0.912; roofing sheet is 0.446; tiles is 0.521 with P-value of 0.064. However, all the P-values are greater than 0.05, suggesting that the correlations are not statistically significant at the 5% significance level. Furthermore, the regression model produced a correlation coefficient R of 0.680. This suggests the existence of a strong positive relationship between building material prices and house rents. The coefficient of determination R-squared revealed that about 43.6% of the variation in house rent in the study area was explained by the prices of the selected building materials. This result implies that other factors may influence the changes in the house rent rather than building material prices. Udoekanem *et al.* (2014) suggested that demand and supply of housing affect fluctuations in house rents. Radzewicz (2013) posited that stakeholders' actions influence rents in the property market. The activities of the housing sector's stakeholders, including investors/house owners, agents, and renters, play a vital role in the supply and demand interactions and, consequently, influence rents in the housing market. Also, Samy (2015) indicated that location, neighbourhood and physical/structural features influence house rents.

This finding contradicts the outcomes of similar empirical studies (Abraham & Hendershott (1996) in the USA, Hlavacek & Komarek (2009) in the Czech Republic, and Murungi (2014) in Kenya). However, it should be noted that the studies mentioned above related rents to housing construction costs and not building material costs considered in the current study. The result of this study could be attributed to factors such as the arbitrary nature of setting rent levels in the Nigerian property market, acute shortage of rental properties and the involvement of real estate agents that influence and guide landlords on potential rent levels in the property market. Nigeria practices an uncontrolled rent regime. As a result, landlords take advantage of the housing market by manipulating the market forces (the demand and supply factors). Furthermore, national macroeconomic factors were reported to influence rental fluctuations in the housing markets significantly. It is worthy of mentioning that the Nigerian economy and indeed the Nigerian

housing sector has been faced with the constraints of the consumer price index (CPI) inflation (Chiwuzie & Dabara, 2021). The inflation in the economy is observed to be responsible for the increasing housing construction costs in Nigeria. The increases in construction costs could discourage investment in the housing sector. According to Okorie (2015), this phenomenon leads to a shortage of housing supply and subsequently high rentals of existing housing accommodations. Growth in the urban population is also identified as a factor influencing house rent. This could also apply in the current study area. The establishment of several tertiary educational institutions in Ede has led to the influx of staff, students, people in business and people providing support services who chose to live close to their employment base. This development has resulted in increased population and increased demand for rental housing with the attendant increase in the rents within the area.

## **5. Conclusion**

This study examined the relationship between building material prices and the rental values of residential properties in Ede, Nigeria, from 2002 to 2020. Specifically, the study analysed house rents within the study period and assessed the influences of the individual building material prices on house rents. The study found that there was a steady and consistent increase in both variables during the period studied. The result of the multiple regression analysis revealed that yearly changes in house rents correlated with some percentage changes in the prices of the selected building materials (cement, sand, reinforcement bar, roofing sheet and tiles). However, all the correlations were not statistically significant at the 0.05 level. The result of this study could be attributed to the arbitrary nature of setting rent levels in the Nigerian property market. The landlords and investors explore the uncontrolled rent charged for manipulating the market force in the housing market. Furthermore, the regression model on overall revealed a strong positive relationship between building material prices and house rent within the study period, as indicated by a correlation coefficient (R) of 0.684. More so, the coefficient of determination (R-squared) revealed that about 43.6% of the variation in house rent in the study area was explained by the prices of the selected building materials. This result connotes that 56.4% variance may be explained by other variables not incorporated in the model. Thus, other factors may influence the changes in the house rent rather than building material prices. The implication of this study to real estate practice in the study area in particular and similar African nations in general borders on the

need for investors to be well informed on how building materials prices relate to residential properties' rental values. There is a consensus in the literature that the market-related factor is the critical influencer in rental price determination in the property market. The results of this study have corroborated this general assertion. Hence stakeholders in the real estate sector will benefit from the findings of this study when making decisions for investments in the study area, particularly and in similar developing economies in general. The results of this study, however, must be seen in light of methodological limitations. This study considered a relatively small housing market focused on some primary building materials and excluded other ancillary items and finishing materials such as timber, ceiling materials and paints, among others. This limitation is amplified as variations in the quality/cost of overall materials could also affect rental value.

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