A Decade of Rent and Price Movement in Port Harcourt Metropolis

ELENWO, E.[1], AKUJURU, V. A[2]

Department of Estate Management, Faculty of Environmental Sciences, Rivers State University, Port Harcourt, Nigeria.

Abstract: **Residential properties are basic needs to humans as people must desire a place to rest after the days' job and also to carry out other activities needed for survival. The need for investors in real estate in Port Harcourt metropolis to make informed decision on residential property investment necessitated this study. The study examined the rental value trends and sale prices of 1, 2 and 3 bedroom flats in Ogbunabali and Rumuepirikom towns both in Port Harcourt metropolis from 2010 to 2019. The study gathered data on rental values and sale prices from Estate Surveying and Valuation firms practicing in Port Harcourt metropolis. The data collected were analysed using descriptive and inferential statistics such as tables, trend analysis and Pearson correlation analysis to analyse the relationship between rental values and sale prices of the property types under study in the study areas for the period. The study revealed that 3 bedroom flats had the highest growth rates in Ogbunabali with average growth rates of 100% for the ten year period under study, and also revealed that 1 and 2 bedroom flats had their highest growth rates in Rumuepirikom with average growth rates of 108% and 150% respectively. From the Pearson correlation analysis carried out to ascertain if there exists a relationship between rental values of residential properties and their sale/ purchase value, the study established from the analysis that the relationship is statistically significant at 0.01 level. This study has revealed how rental incomes from a particular location can impact on the rental growth rates and also the relationship between rental values and sales/ purchase prices in the study areas for the residential properties under study which will aid informed decision making as regards real property development.**

Keywords: **Decade, Metropolis, Rental value, Residential properties, Sale price, Trends.**

1. INTRODUCTION

Real property investment consist of retail warehousing, office and business space, industrial and warehouse, agricultural land and woodland, leisure and healthcare and residential. According to Agusto Research (2010) the real estate sector in Nigeria contributes an average of 4.5% of the country's GDP and in 2019 second quarter it contributed 6.43% according to the National Bureau of Statistics while Heaton and Lucas (2000) noted that 55% of consumer's wealth in the US was in real estate. In the same vein, Liow, (2004) opined that in Singapore real estate accounted for 50% of the nation's wealth and productive capital. Reed (2001) stated that real estate investment is a major source of wealth to the individuals who invest in it. Investment in real estate cannot be overemphasized as it is not only a hedge over inflation but also a means of income through renting and capital growth (Johnson, Davies and Shapiro, 2000; Karakozova; 2005; Kivilahti and Vitanen, 2006). The assessment of residential rental and capital values involves the analysis of the property, the neighbourhood characteristics and market conditions which is a cumbersome and tasking procedure. Gatzlaff and Tirtiroglu (1995) opined that the rental housing market is characterized as imperfect and inefficient, which is attributed to the long-lasting nature of landed property, fixed on a given site, heterogeneous, and controlled by extensive governmental regulation. Since each housing market is confined to a given area, characteristics of a market in one area may not necessarily be an accurate representation of other markets (Isaac, 1998). Residential properties tend to be needed as it provides shelter for families and

a place of rest after a days' job. Residential properties are not only for owner occupation or personal utilization but also for investment purpose though different from investment in stocks and bonds (Sun, Liu and Zheng, 2004). It is therefore imperative to understand rental growth and sale price growth in order to make informed investment decisions.

Rental and property price fluctuations has greater effects on the wealth of the investor than financial assets (Oletubo, 2014). Different factors can influence both rental movements and sale price movement and these movements are important indicators to understanding rental growth rates and house prices. House buyers are optimistic that a profitable gain is achievable through rental income and capital growth from sales (Tan, 2008) and this is imperative in understanding and taking decisions as it concerns property investments. Sean and Hong (2014) in their study confirmed that locational factors, financial and structural factors were the major factors that affects decision to invest in residential properties in Malaysia.

2. STUDY AREA

Port Harcourt city is one of the largest cities in Nigeria and the capital city of Rivers State. According to Ogbonna, Amangabara & Ekere (2007) Port Harcourt metropolis is made up of Port Harcourt local government area and part of Obio-Akpor local government area. The study areas are Rumuepirikom and Ogbunuabali both in Obio Akpor and Port Harcourt City Local Government Area respectively. Rumuepirikom town is situated at Latitude 4.825432 N and Longitude 6.9673161 E while Ogbunabali town is located on Latitude 4.802925 N and Longitude 7.012548 E. The two communities used for the study are predominantly dominated by the Ikwerre people who are the indigenes of these two communities. Rumuepirikom has grown and developed due to urbanization with a lot of residential and commercial buildings in place. It spans through from Iwofe road, Ada George road to Ikwerre road axis. Ogbunabali town is bounded by Aba road, Trans Amadi road, Amadi flat and old GRA areas. It is a busy area with a lot of demand for accommodation due to the very many companies in its vicinity like the LNG Company and other companies in Trans Amadi industrial layout. This has also made rental and sales values to be higher than in Rumuepirikom town.

The city is host to most multi -national companies like the Agip Oil Company, Nigerian Liquified Natural Gas (NLNG), Shell Petroleum Development Company (SPDC), Halliburton company, Schlumberger company and others as such became the centre of the Nigerian oil economy. The city has developed and urbanized considerably due to the presence of these multinational companies and other allied servicing companies in the state. The presence of these companies has boosted the Port Harcourt property market as demand for residential accommodations has also triggered supply and improved property values. It lies along the Bonny River and is located in the southern Nigeria also known as the Niger Delta (Ukpere, 2005).
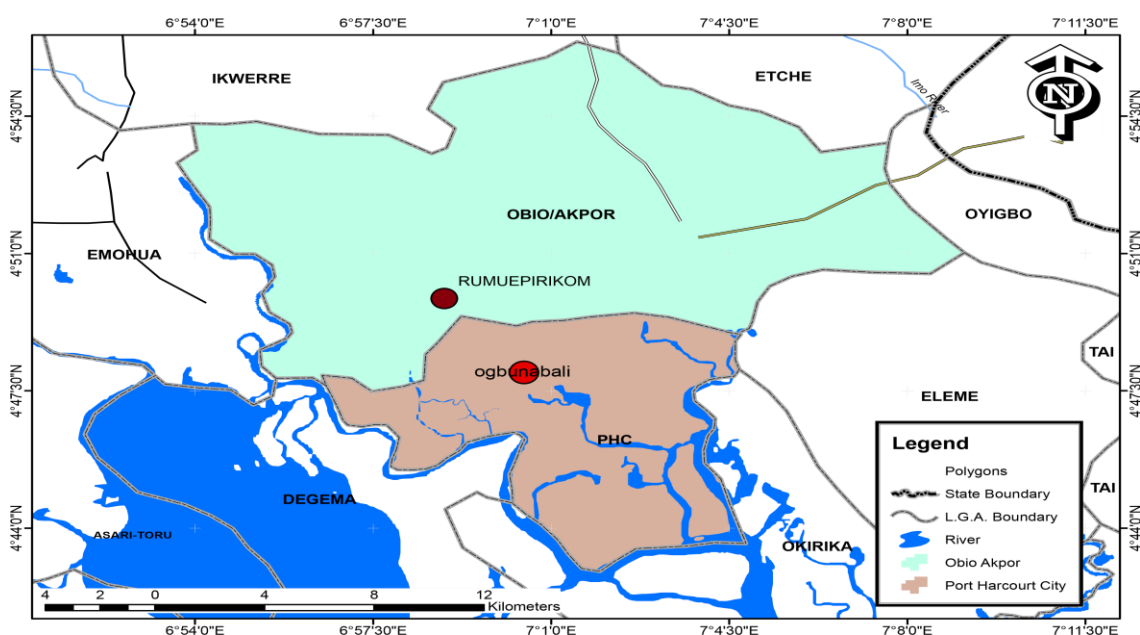
Figure 1.1: Map of Port Harcourt metropolis showing Rumuepirikom and Ogbunabali.

Source: Office of the Surveyor General, Rivers State, Housing and Property Development Authority.

3. LITERATURE REVIEW

Despite the sparse studies on rental trends in Nigeria, there are certain contributions that should be mentioned. Urban rents in Nigeria have maintained upward movements in the previous two decades (Idudu, 1989 and Omuojune 1994). The study of Morenikeji (1998) in Minna has revealed an uncomfortable trend in the rental values of house in Minna where rental values increased drastically up to 900% in some of the property types. The study opined that the situation in bigger cities like Lagos, Port Harcourt, Warri, Kaduna etc is worse. These trends in rental values could be as a result of inflation, other factors like cost of building materials and other financial implications. The bigger cities like port Harcourt, Lagos and Abuja will definitely have higher trends as the demand for residential properties in these cities will be very high due to the nature of these cities as either highly commercialized as in Lagos state or seat of government like Abuja and the oil state like Port Harcourt city. In the research by Iroham, Oluwumi, Simon and Akerele (2014) a similar study to analyze the trend in rental values of commercial properties was conducted in Akure from 2006 to 2011, the authors collected data from Estate Surveying firms in the research area. The study's findings revealed that rental values increased steadily during the study period.

Nwuba (2004) in a study involving differences in house rent in various locations in Kaduna between1986 to 2004 showed the existence of house rent inflation rates which was discovered to be statistically significant amongst these areas. Nwuba & Adeagbo (2007) as a follow-up on this research found a steady rise in house rents index in Kaduna during the same period. This is indicative that rents of residential properties increase steadily in most cities,

Ekenta (2015) in a related study aimed at examining the rental values of residential properties in D/line, Port Harcourt for the period of 2007 – 2014 and reasons for the trend using both open and closed ended questionnaire to elicit information on major factors responsible for the trend in rental values in D/Line Port Harcourt found out that location, availability of facilities, population and cost of building materials were the major contributing factor for the upward movement of rental values of residential properties in the study area. Chukwu, (2016) also tried to determine the trends in rental values of residential properties in the Enugu using New-Haven and Achara Layouts. The study also compared the trends in New-Haven with that of Achara Layouts both of which has similar infrastructural characteristics. Data collection for this study was through survey method where a sample of 50 properties and 445 respondents were selected using stratified random sampling technique and it was observed that there was a steady increase in rental value of residential properties in Enugu in the past ten years. It is pertinent to note that, the rate of increase in New-Haven was higher than that of Achara Layout between the years 2005-2009 due to better infrastructure.

Chui and Chau (2005) carried out an empirical study of the relationship between economic growth, real estate prices and real estate investment in Hong Kong and used the Granger causality test on quarterly time series data on real estate price indices revealed that residential real estate price exhibited a strong leading relationship with GDP.

4. METHODOLOGY

The study used the survey research method to extract information on rental values and sale prices from Estate Surveying and Valuation firms for the property types under study which are 1, 2 and 3 bedroom flats in the study areas for the ten year period of 2010 to 2019. The questionnaire sought to access information on the type of property, age of property, rental values of property types and sale/ purchase prices of each property type sold within the study period. The Estate Surveying and Valuation firms are by law the only professionals empowered in Nigeria by Decree No 24 of 1975 to determine values of properties and their interest. The study administered questionnaires on 80 Estate Surveying and Valuation firms who have practiced in Port Harcourt metropolis for a period of fifteen years and above as retrieved from the records of the Nigerian Institution of Estate Surveyors and Valuers Rivers State branch. The questionnaires retrieved were 57 in number accounting for 71% response rate. The data collected for the study were presented in tables and analysed using trend analysis and Pearson Correlation Coefficient to analyse the trend of rents and sale/purchase prices and relationship between rental values and sale/ purchase prices of the property types in the two study locations respectively for the period under study.

5. RESULTS AND DISCUSSION

The analysis revealed that the rental values and sale/ purchase prices trend analysis of the three residential property types in the two study locations in Port Harcourt metropolis from 2010 to 2019 had a slow but steady rise. The study used the

average annual rental values of the property types in the two study locations in order to give a more generalised impression of the rental market in the study locations. Tables 1 to 5 shows the average annual rental value, compounded average annual growth rates and average sales/ purchase prices of 1, 2 and 3 bedroom flats in the study areas while Figures 1 to 4 reveals the trend analysis of rental values and sale / purchase prices of 1, 2 and 3 bedroom flats in the study areas.
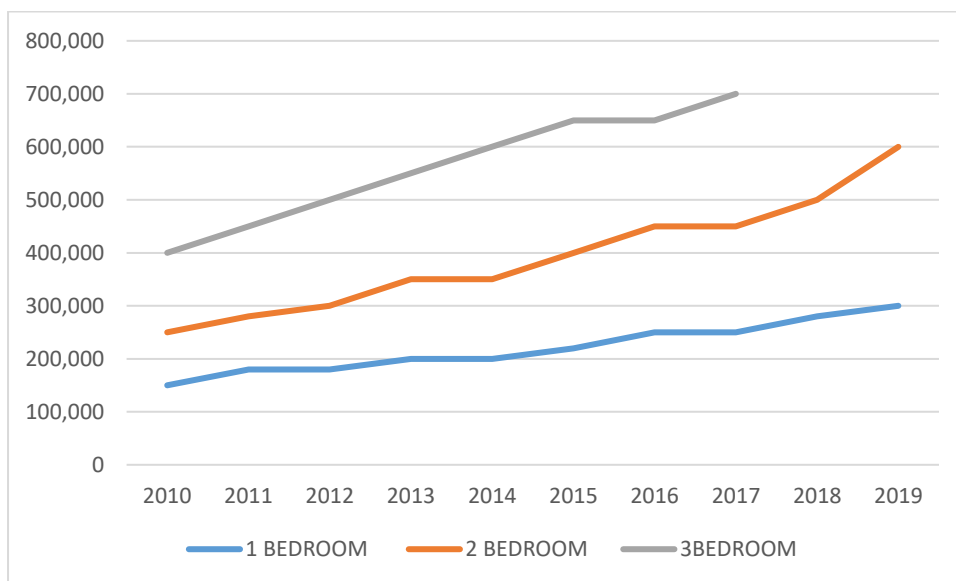
5.1 Ogbunabali Residential Zone

Table 1: Average Rental Values of 1, 2 and 3 Bedroom Flats (#)

YEAR	1 bedroom flat	2 bedroom flat	3 bedroom flat
2010	150,000	250,000	400,000
2011	180,000	280,000	450,000
2012	180,000	300,000	500,000
2013	200,000	350,000	550,000
2014	200,000	350,000	600,000
2015	220,000	400,000	650,000
2016	250,000	450,000	650,000
2017	250,000	450,000	700,000
2018	280,000	500,000	700,000
2019	300,000	600,000	800,000
Growth	100%	140%	100%

Source: Field Survey, 2022

Table 1 revealed that the rental values of 1, 2 and 3 bedroom flats in Ogbunabali for the period 2010 to 2019 were increasing. From the table, it is revealed that 1 bedroom flat in Ogbunabali had a rental value of #150,000 per annum in 2010 and increased to #300,000 per annum in 2019 while 2 bedroom flats increased from #250,000 per annum in 2010 to #600,000 per annum in 2019. Similarly, 3 bedroom flats rose from #400,000 per annum in 2010 to #800,000 per annum in 2019. These rise could be as a result of the location of Ogbunabali which is close to the central business district and Trans Amadi industrial layout as such is likely to command a high demand as persons working in the industrial area and central business districts will want to live close to their work place. This assertion is supported by the study of Ekenta (2015) who observed in his study that location influenced trends in rental values of residential properties.

Figure 1: Average rental value trends of 1, 2 and 3 bedroom flats in Ogbunabali

5.2 Rumuepirikom Residential Zone

Table 2: Average Rental Values of 1, 2 and 3 Bedroom Flats (#)

YEAR	1 bedroom flat	2 bedroom flat	3 bedroom flat
2010	120,000	180,000	350,000
2011	120,000	200,000	400,000
2012	150,000	250,000	420,000
2013	180,000	280,000	450,000
2014	180,000	300,000	450,000
2015	200,000	350,000	480,000
2016	200,000	400,000	500,000
2017	220,000	430,000	500,000
2018	250,000	450,000	550,000
2019	250,000	450,000	600,000
Growth	108%	150%	71%

Source: Field Survey, 2022

Table 2 revealed that the rental values of 1, 2 and 3 bedroom flats in Ruuepirikom for the period 2010 to 2019 were also increasing. From the table, it is revealed that 1 bedroom flat in Ruuepirikom had a rental value of #120,000 per annum in 2010 and increased to #250,000 per annum in 2019, 2 bedroom flats increased from #180,000 per annum in 2010 to #450,000 per annum in 2019 and 3 bedroom flats rose from #350,000 per annum in 2010 to #600,000 per annum in 2019. Rental trends improved in Rumuepirikom and can be likened to the improvement in road infrastructure and electricity supply in the area. The area is characterized with good roads and also the streets are mostly gated which gives a good sense of security to the residents. This finding of infrastructure influencing rental value trends is corroborated by the study of Chukwu, (2016) using New-Haven and Achara Layouts both in Enugu.
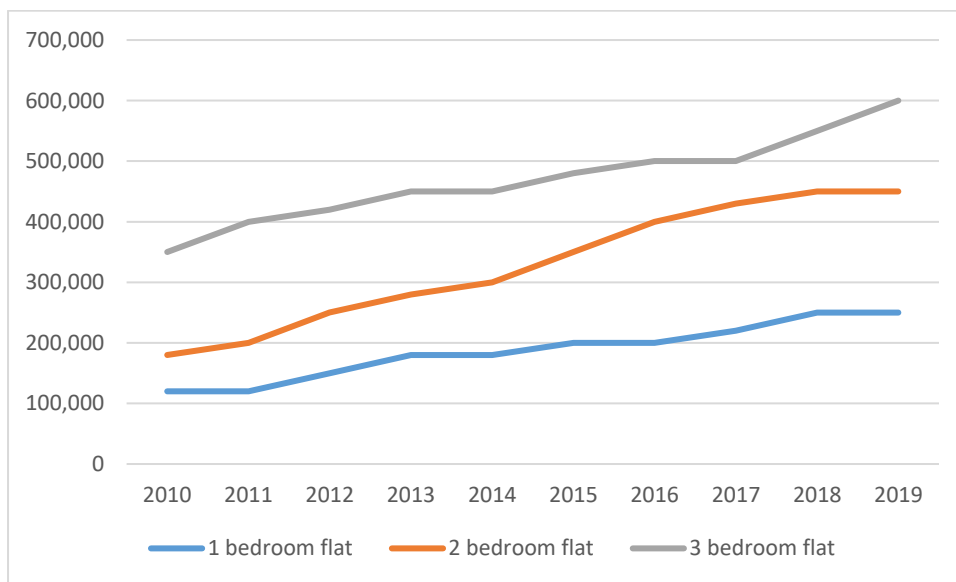

Figure 2: Average rental value trends of 1, 2 and 3 bedroom flats in Rumuepirikom

Table 3: Compounded Average Annual Growth Rates of Rental Values from 2010 – 2019

Location	1 bedroom flat	2 bedroom flat	3 bedroom flat
Ogbunabali	7.2%	9.2%	7.2%
Rumuepirikom	7.6%	9.6%	5.5%
Mean Rates	7.4%	9.4%	6.4%

Source: Field Survey, 2022

Table 3 revealed the average annual growth rates calculated from the average rental values of 1, 2 and 3 bedroom flats in the study areas from 2010 to 2019. The Compound Average Growth Rate (CAGR) formula was used for the computation;

$$g = (Z/A)^{1/n} - 1$$

Where g = rate of annual rental growth

Z = the mean rental value of the closing year

A = the mean rental value of the first year

n = the number of years

The CAGR was used to describe the rate at which rents have grown through the years.

Table 3 also revealed that 1 bedroom flats in Rumuepirikom had a higher average annual growth of 7.6% while Ogbunabali had 7.2% growth rate which could be said to be due to the lower rents in the location which may have attracted more persons to seek residential accommodation in the residential area. This same scenario was repeated for the 2 bedroom flats where it was revealed that in Rumuepirikom, 2 bedroom flats had the highest average annual growth rate of 9.6%. 2 bedroom flats had the highest mean growth rate of 9.4% considering the two locations. Rumuepirikom revealed a low compounded annual growth rate of 5.5% for 3 bedroom flats. This could be attributed to mean that the demand for 2 bedroom flats in Rumuepirikom is more and the reason could be that the residents have smaller family size and also lower incomes so prefer to take the smaller size accommodation.

5.3 Sale / Purchase Prices of 1, 2 and 3 Bedroom Flats in Ogbunabali

Table 4: Average Sale/ Purchase Prices of 1, 2 and 3 Bedroom Flats (#Million)

YEAR	1 bedroom flat	2 bedroom flat	3 bedroom flat
2010	10	15	18
2011	12	15	18
2012	12	18	22
2013	15	18	22
2014	15	20	25
2015	18	20	25
2016	18	22	30
2017	20	25	30
2018	20	25	35
2019	25	30	35
Growth	150%	100%	94%

Source: Field Survey, 2022
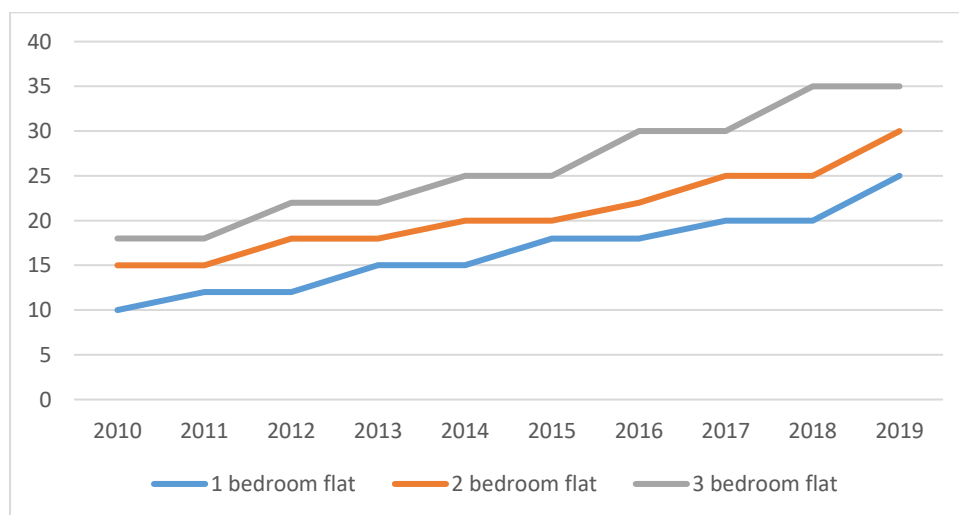
Figure 3: Average sale/ purchase prices trends of 1, 2 and 3 bedroom flats in Ogbunabali

5.4 Sale / Purchase Prices of 1, 2 and 3 Bedroom Flats in Rumuepirikom

Table 5: Average Sale/ Purchase Prices of 1, 2 and 3 Bedroom Flats (#Million)

YEAR	1 bedroom flat	2 bedroom flat	3 bedroom flat
2010	8	12	15
2011	10	15	18
2012	10	18	20
2013	12	20	22
2014	15	20	22
2015	15	20	25
2016	18	22	25
2017	18	22	28
2018	20	25	30
2019	20	25	30
Growth	150%	108%	100%

Source: Field Survey, 2022

Tables 4- 5 and figures 3 and 4 revealed the average sale/ purchase prices of 1, 2 and 3 bedroom flats in the two study locations in Port Harcourt metropolis within the ten year study period. The tables revealed that 1 bedroom flats had the same growth rate of 150% in sale/purchase prices in the two study locations while 2 and 3 bedroom flats had the highest sale/ purchase price growth rates in Rumuepirikom with growth rates of 108% and 100% respectively. The property type that had the lowest sale/ purchase price growth rate was the 3 bedroom flat in Ogbunabali with average growth rate of 94% within the ten year period under study.
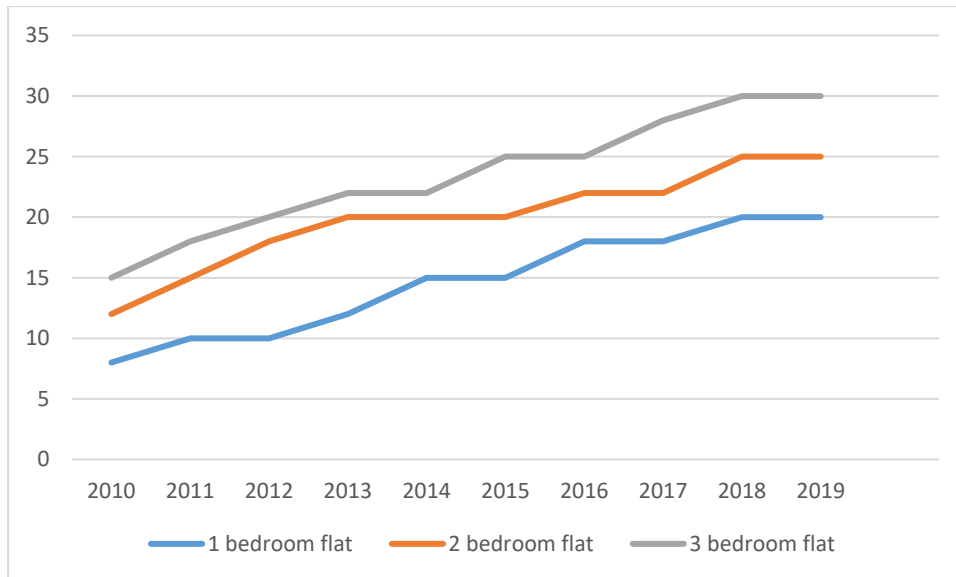

Figure 4: Average Sale/ Purchase Prices of 1, 2 and 3 Bedroom Flats in Rumuepirikom

Table 6: Pairwise Analysis for One (1) Bedroom Flat

Variable	rho	Rental value
Sale value	Pearson Correlation	.990**
	Sig-(2- tailed)	.000
	N	10

**Correlation is significant at the 0.01 level (2-tailed).

Table 7: Pairwise Analysis for Two (2) Bedroom Flat

Variable	rho	Rental value
Sale value	Pearson Correlation	.993**
	Sig-(2- tailed)	.000
	N	10

**Correlation is significant at the 0.01 level (2-tailed).

Table 8: Pairwise Analysis for Three (3) Bedroom Flat

Variable	rho	Rental value
Sale value	Pearson Correlation	.984**
	Sig-(2- tailed)	.000
	N	10

**Correlation is significant at the 0.01 level (2-tailed).

The correlation analysis of rental values against sale /purchase prices of the residential property types under study within the study period in the study areas revealed that the relationship of rental values and sales/ purchase prices are statistically significant at 0.01 level with a degree of significance at .990 for one bedroom flats, .993 for two bedroom flats and .984 for three bedroom flats. This implies that there is a very strong relationship between rents and sale/purchase prices meaning that when rents increase, the sales/purchase prices of residential properties in the study areas within the period also increased. This study revealed that the properties under study have maintained consistent trends during the period under study.

6.   CONCLUSION AND RECOMMENDATIONS

This study analysed rental value and sale/ purchase prices of 1, 2 and 3 bedroom flats in two study locations of Ogbunabali and Rumuepirikom towns all in the Port Harcourt metropolis with the aim of revealing the property type with the highest trend and growth rates in the study areas. The study has shown that all the property types in the study areas had steady increment with 2 bedroom flat in Rumuepirikom commanding the highest growth rate of 150% within the 10 year period under study. It is important to note that 3 bedroom flats recorded a low growth rate of 71% in Rumuepirikom compared to the other residential property types used for the study. However, 3 bedroom flat in Ogbunabali had a 100% growth rate in the period under study. It was observed that location, infrastructure and income played a major role in the rental trends observed as such recommends that government should endeavor to improve infrastructural facilities in the state to enable improved living standards and revenue through property taxes. This study has revealed how rental incomes from a particular residential property and location can impact on the rental growth rates and sales/ purchase value which will aid informed decision making as regards real property development and investment.

REFERENCES

[1]   Chiu, L. H. (2005). An Empirical Study of the Relationship between Economic Growth, Real Estate Prices and Real Estate Investment in Hong Kong. Journal of Surveying and Built Environment 16 (2), 19-32.

[2]   Chiwuzie, A. a. (2019). Analyzing the Dynamics of Residential Properties' Rent in Ede, Nigeria. Journal of Research in Business, Economics and Management vol. 13 (4), 2555-2563.

[3]   Chukwu, A. C. (2016). Trends In Rental Values Of Residential Properties In Enugu, Nigeria; A Comparative Study Between New Haven And Achara Layouts. Journal of Multidisciplinary Engineering Science and Technology 3 (2), 4037-4047.

[4]   Ekenta, C. (2015). Analysis of rental value trend in Port Harcourt. Asian Journal of Social Sciences & Humanities 2 (4), 1-10.

[5]   Gatzlaff, D. a. (1995). Real Estate Market Efficiency: Issues & Evidence. Journal of Real Estate Literature Vol. 3 (2), 157-189.

[6] H., L. K. (2004). Corporate Real Estate and Stock Market Performance. Journal of Real Estate Finance and Economics 29 (1), 119-140.

[7] Heaton, J. a. (2000). Portfolio Choice and Price: The Importance of Entrepreneurial Risk. Journal of Finance, 55,3, 1163-1198.

[8] Idudu, O. J. (1989). Mobilisation of Private and Public Investments in Property Development. Paper Presented at the 19th Annual Confeence of the Nigerian Institution of Estate Surveyors and Valuers, . Lagos: Nigerian Institution of Estate Surveyors and Valuers, .

[9] Isaac, D. (1998). Property Investment. New York: Pelgrave.

[10] Johnson, T., Davies, K., & Shapiro, E. (2005). Modern Methods of Valuation of Land, Houses and Buildings. London: Estate Gazette.

[11] Karakozova, O. (2005). "Modelling and Forecasting Property Rents and Returns". Helsinki: Swedish School of Economics and Business Administration.

[12] Kivilahti, A. a. (2006). Dynamics of the Commercial Property Markets in Finland. XX111 FIG Congress 8th -13th October. Munich, Germany.

[13] Morenikeji, W. (1998). Analysis of Rental Values Structure of Residential Buildings in Minna (1980-1996) . Ife Planning Journal 1(1), 22-34.

[14] Nwuba, C. (2004). An analysis of housing construction costs trends in Nigeria, 1986-2002. The Quantity Surveyor 47 (6), 6-9.

[15] Nwuba, C. (2008). Analysis of Office Rent Movement in Abuja. Nigerian Journal of Education 7 (1), 1-11.

[16] Ogbonna, D., Amangabara, G., & Ekere, T. O. (2007, May 20). Researchgate Publications. Retrieved from Researchgate website: http://www.researchgate.net/publication|235290489

[17] Oletubo, A. (2014). Analysis of Residential Property Investments in Lagos, Nigeria. Lagos: LAMBERT Academic Publishing.

[18] Omuojine, O. E. (1994). Property Market in Nigeria: Analysis and Perspective. The Estate Surveyor and Valuer, 18(1), 15-21.

[19] Reed, T. J. (2001). How to Buy Real Estate for Little or No Money Down: How to Use Leverage to Maximize Your Real Estate Investment Return: Ethical, Legal, Practical, Profitable Techniques. ISBN:0939224550 (ISBN13: 9780939224555.

[20] Sean, S. a. (2014). Factors Affecting the Purchase Decision of Investors in the Residential Property Market in Malaysia. Journal of Surveying, Construction and Property, 5 (2), 1-13.

[21] Sun, B. L. (2004). A Comparative study on the Investment Value of Residential Properties and Stocks. International Journal of Strategic Property Management 8 (2), 63 -72.

[22] Tan, T. H. (2008). Deterinants of homeownership in Malaysia. Habitat International, 32 (2), 318-335.

[23] Ukpere, D. (2005). Effect of waste dumps on landuse and property values in Port Harcourt . Unpublished Master's dissertation department of Geography and Environmental management, University of Port Harcourt.