

## **Rent-to-Income Ratio in Residential Property Market in Uyo, Akwa Ibom State, Nigeria**

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### **ABSTRACT**

*This study examined the rent-to-income ratio in the residential property market in Uyo, Akwa Ibom State, Nigeria. A sample of 427 residential property occupiers was adopted. Simple percentage, means, Analysis of Variance (ANOVA), and pairwise were used to analyse the data. The result revealed that 35.3% was the rent-to-income ratio in Uyo. Self-contained took the highest rent-to-income ratio of the occupiers as it took 40% of the income while tenement took the lowest as it took 20% as the rent-to-income ratio. ANOVA showed a significant difference in the mean rent of occupiers based on the type of property and no significant difference based on profession. From the pairwise comparison of the mean rent by property type, the mean rent for the Maisonette was significantly higher than others, while the mean rent for the tenement was lesser than the mean rent of all other properties. Therefore, tenants should be sensitized to understand the recommended rent-to-income ratio of 30% to guide them in renting housing and the implications. Also, the government should provide a home ownership scheme where she can subsidized sale of houses or land to encourage the citizens to have theirs.*

**Keywords:** *Market, Property, Ratio, Rent-to-Income, Residential.*

### **1.0 INTRODUCTION**

There is a consensus that housing is a necessity in life. The necessity comes with a cost which is quite capital intensive (Kalu, 2001). While some persons who have financial capacity can afford to own shelter, some can only manage to rent it from those who can afford to own. Soludo (2007) as cited in Olukolajo, Ogungbenro and

Adewusi (2018) stated that unlike home ownership situation in US which is 72%, 78% in United Kingdom, 60% in China, 54% in Korea, 92% in Singapore, only about 10% of Nigerians are home owners, turning the remaining 90% of Nigerians to rental market. Hulchanski (1994) opined that rent is a function of the household income level. This means that many Nigeria spend their income on rent. According to Andrew (1998), the acceptable co-efficient of rent to income ratio is 30%.

HUD (2005) as cited in Aribigbola (2008) expressed some reservation that families who spend more than 30% of the household income on housing are considered cost burdened and may have challenges affording other necessities like food, clothing, healthcare, transportation. With this on mind, it is worrisome seeing the findings of some studies in some places around the world especially in Nigeria where Menteri (2013) as cited in Wulandari, *et al.* (2017) found that low-income families spend almost 50% of the household income on housing in Indonesia. Daramola and Aina (2004) stated that many workers in Nigeria spend more than 40% of their income on housing. Salihu *et al.* (2021) opined that 74.57% of the households spend more than 30% of their income on housing. Ayambem (2019) concluded that low and medium-income households spend above 70% of their income on housing. With these diverse findings from different parts of the country, this work extended to Uyo in Akwa Ibom State to examine the rent-to-income ratio in the city, which little or no attention has been given to housing affordability.

Salihu *et al.* (2021) asserted that 25.43% of the tenants in Minna, Niger State spend 30% and below of their monthly income on housing while 74.57% expended over 30% of their income on housing. This means many people in Minna spend more money on rent above the recommended coefficient. Consequently, it means that 25.43% of the tenants are in compliance with the acceptable rent income ratio of 30% as stated by Cox and Parletich (2010) while 74.57% are at variance with the 30% acceptable coefficient of rent income ratio. Daramola and Aina (2004) stated that the problem of rent default could arise because many workers in Nigeria expend more than 40% of their income on housing. Andrew (1998) opined that the acceptable coefficient of rent-to-income-ratio is 30%. This suggests that if a tenant spends more than 30% of his income on housing, he may be financially constrained to default in rent as he will have other necessities like food, clothing, health, transport to spend on.

Hulchanski (1994) stated that in 1900 to early 1920s, rent-to-income ratio was 12%, in 1920 to late 1950s it rose to 20%, in 1960s to early 1980s the rent-to-income ratio was 25% and since mid-1980s the rent to income ratio was put-at 30%.

Bertuat and Starr-McClure (2002) asserted that in U.S expenses on residential property accounted for a quarter of aggregate household wealth. In U.K, Bank and Tanner (2002) stated that housing account for 35% of the household income. Menteri (2013) as cited in Wulandari *et al.* (2017) found out that in Indonesia, low-income families spend almost 50% of their income on housing. Rukaiyat *et al.* (2015) examined housing affordability by federal civil servants in Minna, Nigeria and concluded that federal civil servants in the area spend 7.3% and 23.8% of their annual income on rent. At this level of housing expenditure, it suggests that federal civil servants in Minna are well within the acceptable coefficient of rent-to-income ratio and may not be experiencing housing stress.

Eric *et al.* (2005) as cited in Rukaiyat *et al* (2015) put it that rent-to-income ratio not being more than 30% of household income does not account for sacrifices households concede in order to attain a lower cost of housing. This points to the fact that some households who spend less 30% of their income on rent may live in poor quality house, live in places that are quite far from their workplace so they pay much money on transportation. Ayambem (2019) found that rental housing expenditure of low and medium-income households proposed at 30% - 40% was significantly higher at a rate of 70% of household's income and this has affected other basic needs of the low and medium-income households. Okon and Ikelegu (2021) found out that about 80% of the residents of Calabar Metropolis cannot afford housing as they expend more than 30% of their income on housing. The purpose of this work is to evaluate the rent-to-income ratio among the occupants of rented residential properties in Uyo, Akwa Ibom State, Nigeria.

### **3.0 METHOD**

The study adopted cross-sectional research design which copies of questionnaire were used to randomly collect data across the different sectors and locations in Uyo. 500 copies of questionnaire were administered, out of which 427 copies of the questionnaire were properly completed and returned. This yielded response rate of 85.4%. Data collected were analysed through the use of descriptive and inferential statistical tools. This included percentages, mean standard deviation and analysis of variance (ANOVA). These were used to test the ratio of rent-to-income among the types of residential properties and other things.

#### 4.0. RESULTS AND DISCUSSION

Table 1: Ratio of Rent-to-Income by Residential Property Types in Uyo

Property Type	Mean Rent	Mean Income	Rent percent income
Self-contained	181346.2	451815.4	40.1
1-bedroom Flat	211612.9	533971.0	39.6
2-bedroom Flat	242352.9	642785.3	37.7
2-bedroom Bungalow	282916.7	751616.7	37.6
1-bedroom Bungalow	230000.0	632900.0	36.3
4-bedroom Bungalow	468666.7	1292336.3	36.3
Maisonette	647777.8	1806855.6	35.9
3-bedroom Bungalow	366391.8	1036716.6	35.3
3-bedroom Flat	358481.0	1054830.4	34.0
Tenement	49434.8	247504.3	20.0
Average	303898.1	845133.2	35.3

The Table 1 presents the rent-to-income ratio in Uyo metropolis. There were ten (10) types of residential properties identified in the study which were self-contained, 1-bedroom flats, 2-bedroom flats, 2-bedroom bungalows, 4-bedroom bungalows, marionettes, 3-bedroom bungalows, 3-bedroom flats and tenements (face-me-I-face you). Among these residential properties, self-contained had the highest rent-to-income ratio which was 40%. This was far above the recommended ratio of 30%. This may be the major reason Akpan, Isok and Usoro (2022) concluded that self-contained has the highest rate of rent default. This type of residential property is majorly occupied by students who are depending on others to pay their bills so that may not really feel or understanding the impact of the high ratio.

The 1-bedroom flats had rent-to-income ratio of 39.6% which is also above the recommended ratio of 30%. This type of property is majorly occupied by people who are working class but single at this stage in life, the responsibilities may not be too many so they can spend more on rent. Also, the 2-bedroom bungalows and 2-bedroom flats had rent to income ratio of 37.7% and 37.6% respectively. Further, 1-bedroom bungalows and 4-bedroom bungalows had rent-to-income ratio of 36.3% and 36.3% respectively. In addition, 3-bedroom bungalows and 3-bedroom flats had rent-to-income ratio of 35.3% and 34% respectively while tenement buildings had rent-to-income ratio of 20%. The average rent-to-income ratio in Uyo is 35.3%. This is above the recommended ratio of 30%. This is excess of 5.3% above the

recommended ratio. This suggests that the cost of renting house in Uyo is becoming expensive. From the analysis, self-contained is taking the highest rent-to-income ratio while tenement building is having the least rent-to-income. This can be understood based on the quality of tenement buildings which is usually very poor as some are located at slums, roof leaking among others negative factors.

**Table 2:** Rent-to-Income Ratio by occupation of residential property occupiers in Uyo

<b>Occupations</b>	<b>Mean Rent</b>	<b>Mean Income</b>	<b>Rent percent income</b>
Surveyor	275000.0	703000.0	39.1
Student	161377.8	435224.4	37.1
Public servant	348378.4	969750.0	35.9
Businessman	390370.4	1091205.6	35.8
Civil servant	288088.7	818466.9	35.2
Self-employed	321016.9	920005.9	34.9

Table 2 presents the rent-to-income ratio by occupation of residential property occupiers in Uyo. Going by occupation, public servants who are people that work in organized private organization who render various services to the general public spend 35.9% of their income on rent. Businessmen spend 35.8% of their income on rent. Civil Servants spend 35.2% of their income on rent while people that are self-employed spend 34.9% of their income on rent. By this result, it means that public servants are the set of people that spend the highest share of their income on rent while the people that are self-employed spend the least on rent.

**Table 3:** ANOVA result of the Mean Difference in Income by Property type and Occupation

<b>Effect</b>	<b>Df</b>	<b>Sum Sq</b>	<b>Mean Sq</b>	<b>F value</b>	<b>P-value</b>
Property Type	9	5.6225E+13	6.2472E+12	123.604	<0.001
Occupation	5	1.4038E+11	2.8075E+10	0.555	0.734
Residuals	412	2.0823E+13	5.0542E+10		

The result in table 3 shows the mean difference in income by type of property and occupation. This means difference in income was tested using analysis of variance, and the result gave the probability value of less than 0.05(level of significance) for property type. This means that there is a significant difference in the mean income of the respondents based on the type of property. The p-value for the mean difference in income based on occupation was 0.734 which is greater than 0.05(level of significance), which implies that there is no significant difference in the mean income of the respondents based on occupation. Since the mean difference in income by property type was significant, a follow-up test (post hoc test) was conducted using Tukey HSD test to find out the type of property with the mean income of the occupier different from others.

**Table 4:** Pairwise Comparison Test of the Mean Income by Property Type

<b>Property Type</b>	<b>Mean</b>	<b>std</b>
Maisonette	1806855.56a	111157.31
4-bedroom bungalow	1292336.25b	294030.75
3-bedroom flat	1054830.38c	319792.21
3-bedroom bungalow	1036716.59c	265106.48
2-bedroom bungalow	751616.67d	135061.86
2-bedroom flat	642785.29de	113746.41
1-bedroom bungalow	632900de	128283.95
1-bedroom flat	533970.97e	44736.62
Self-contained	451815.38e	57936.41
Tenement	247504.35f	5645.02

*Mean values with the same letters means not significant*

The mean income of the occupiers of maisonette is significantly higher than other property types that of 4-bedroom bungalow are significantly higher than others except Maisonette. There is no significant mean difference in income between 3-bedroom flat and 3-bedroom bungalow. No significant mean difference in income among 2-bedroom bungalow, 2-bedroom flat, and 1-bedroom bungalow. No significant mean difference in income among 2-bedroom flat, 1-bedroom bungalow, 1-bedroom flat, and self-contained. The mean income of occupiers of tenement is significantly less than others.





**Table 5:** ANOVA result of the Mean Difference in Rent by Property type and Occupation

Effect	Df	Sum Sq	Mean Sq	F value	P-value
Property Type	9	7.47145E+12	8.3016E+11	225.510604	<0.001
Occupation	5	18863582708	3772716542	1.02484573	0.402
Residuals	412	1.51668E+12	3681253119		

The result in table 5 shows the mean difference in rent by type of property and occupation. The result gave the probability value of 0.001 which is less than 0.05 (level of significance) for property type. This means that there is a significant difference in the mean rent of the respondents based on the type of property. The p-value for the mean difference in rent based on occupation was 0.402 which is greater than 0.05 (level of significance), this implies that there is no significant mean difference in rent based on occupation. Since the mean difference in rent by property type was significant, a pairwise comparison test was done to find out the type of property with the mean rent different from others.

**Table 6:** Pairwise Comparison of the Mean Rent by Property Type

Property Type	Mean	std
Maisonette	647777.78a	58476.02
4-bedroom bungalow	468666.67b	74092.63
3-bedroom bungalow	366391.75c	74640.61
3-bedroom Flat	358481.01c	77774.96
2-bedroom bungalow	282916.67d	57140.5
2-bedroom Flat	242352.94de	39453.99
1-bedroom bungalow	230000def	39080.34
1-bedroom Flat	211612.9ef	28878.69
Self-contained	181346.15f	26348.26
Tenement	49434.78g	3015.9

*Mean values with the same letters means not significant*

The mean rent for Maisonette is significantly higher than other property types; that of 4-bedroom bungalow is significantly higher than others except Maisonette. There

is no significant mean difference in rent between 3-bedroom flat and 3-bedroom bungalow. No significant mean difference in rent among 2-bedroom bungalow, 2-bedroom flat, and 1-bedroom bungalow. No significant mean difference in rent among 2-bedroom flat, 1-bedroom bungalow, 1-bedroom flat, and self-contained. No significant mean difference in rent among 1-bedroom bungalow, 1-bedroom flat, and self-contained. The mean rent for tenement is significantly less than others.

## **5.0 CONCLUSION AND RECOMMENDATIONS**

The study identified that the average rent-to-income ratio in Uyo is 35.3% which means on the average people spend 35.3% of their income on rent of residential properties. Self-contained takes the highest of rent-to-income ratio of the occupiers as it takes 40 % of the income while tenement takes the lowest as it takes 20% as the rent-to-income ratio. ANOVA showed a significant difference in the mean rent of respondents based on the type of property with no significant difference based on occupation. From the pairwise comparison of the mean rent by property type, the mean rent for maisonette was significantly higher than others while the mean rent for tenement was significantly less than the mean rent of all other properties. This is because tenement does not have the facilities/convenience like other types of residential properties and their quality is usually poor compared to others. With this, we conclude that the rent-to-income ratio is high in Uyo as it is above the recommended rent-to-income ratio of 30%. This means there is problem of housing affordability in Uyo, Akwa Ibom State.

We, therefore, recommend the sensitization of the tenants to understand the recommended rent-to-income ratio of 30% to guide them in renting housing. We also recommend that government should provide home ownership scheme where she can do subsidized sale of house or land to encourage the citizens to own houses. Government can assist provide incentives like subsidized interest rate or interest concession to real estate developers. Public-Private-Partnership (PPP) scheme can also be encouraged to boost housing supply and this can help reduce the cost of housing.

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