# COMPARATIVE EVALUATION OF RESIDENTIAL REAL ESTATE INVESTMENT PERFORMANCE IN CALABAR AND UYO METROPOLISES

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**Abstract**
The study compared and evaluated residential real estate investment performance in Calabar and Uyo metropolis, Nigeria from 2009 to 2018 covering a period of ten years. The survey research design was adopted and the purposive sampling technique was used in the selection of estate surveying and valuation firms in the study area. Questionnaire was administered to various respondents in the cities. The respondents were the estate surveying and valuations firms. Data was collected on rental values of six different classes of residential properties namely tenements, 1 bed bedroom flat, 2-bedroom flat, 3-bedroom flat, 2-bedroom detached bungalow and 3-bedroom detached bungalow. From the data collected on rental values, the mean or average rental values for each class of residential property were computed while the capital values were derived using years purchase or yield as found in secondary data. The data was analyzed with the use of mean total returns, standard deviation and analysis of variance (ANOVA). The test of the hypotheses indicates that residential real estate investment in Calabar has the highest mean total return and performed better than Uyo which implies that total returns of residential real estate investments are significantly different in Calabar and Uyo. In terms of different classes of residential properties, one bedroom flat performed better in Calabar than Uyo with mean total return of 13.72% and 13.33% respectively. For performance based on risk, two-bedroom detached bungalows in Uyo have the lowest level of risk as represented by 2.14% compared to Calabar with 2.44% respectively. The study shows that the result will be beneficial to real estate investors and policy makers in decision making, it will also be useful in understanding of the property market in different cities. The study concluded by recommending periodic evaluation of investment performance, assessment of risk profile of different types of investments and diversification of real estate investments to minimize risk.

**Keywords:** Evaluation, Residential Real Estate, Investment, Return, Risk, Performance

## 1.0 Introduction

Investment generally is the giving up of a capital sum in expectation of future returns. Ajayi (1998) defined investment as the act of laying out money now in return for a future financial reward. This reward may be received in the form of an income flow or by the receipt of a single capital sum or a combination of both. Ogbuefi (2002) sees investment as the parting with present capital in return for future income. Investment has varying dimensions depending on the nature, quality and area of the investment. Ajayi (1998) noted that two basic elements are fundamental to understanding of investment. The first being the anticipated return which is easier to perceive and measure and the second is risk which is a difficult concept to perceive and possess serious conceptual and analytical problems in terms of measurement. Investment in real estate involves the commitment of funds in the purchase, ownership, management, rental and/or sale of a bundle of rights in real estate with a view to preserving capital invested, increasing it, earning a profit and sometime to enjoy a tax relief (Ogunba and Ajayi, 2018). Olaleye (2016) opined that real estate in its broad sense refers to land and buildings and investment in real estate is an economic activity that involves commodifying interest in landed property as one would with fixed interest securities or company stocks and shares (Olaleye, 2016).

Real estate as an investment could be purchased with the aim of letting it to someone in order to provide the benefit of income (Nwanekezie, 2018). Ajayi (1998)

noted that the property investment market must be seen as part of the overall investment market and at the same time, a distinct segment having its unique attributes and peculiarities. Mfam and Kalu (2012) asserted that every acquisition of real estate is an investment in the real estate market because the real estate purchaser gives a capital sum in expectation of a flow of financial and non-financial benefits over time. The study of performance of residential real estate investment is very essential to all investors in the real estate sector. The impact of the on-going changes in the global and local economy on the performance of real estate investments highlights the need for its careful consideration in the investment decision making process. In Nigeria, as in developed and emerging countries, decisions are often made to invest in property with the primary objective of achieving the necessary level of financial return. Risk has been seen as a common feature of all forms of investment in many urban centres in Nigeria. One fundamental problem of real estate investment is that many investors go into real estate investment without first assessing the risk involved. Thus, many rational investors do not take any investment decisions without a careful examination, identification and assessment of the expected risk elements. Residential real estate investments are varied and ranges from tenements, self-contained apartments, one-bedroom flats, two, bedroom flats, three-bedroom flats to detached and semi-detached bungalows as well as detached and semi-detached houses. With the present

economic situation in Nigeria, an investor who intends to invest in the residential sector of the property market, needs to understand the dynamics of the market and which type of residential property is in high demand and which will also give the investor the highest maximum return while minimizing risk. It is on this premise that this paper evaluates and compares residential real estate investment performance in Calabar and Uyo metropolises.

## 1.1 Concept of Performance Measurement and Risk

Ajayi (1998) asserted that the ultimate aim of all rational investors is to achieve maximum returns and minimize risk. Performance measurement is the degree of achievement of maximum returns measured against a set of objectives and targets (Ajayi, 1998). It involves drawing conclusions from analyzing past performance from historic data and assessing future prospects. The purpose of investment analysis is to facilitate comparison of investments and decision making. Kalu (2001) noted that sound investment strategy demands that investment performance measurement should be made on a regular basis. Ogbuefi (2002) agrees that performance measurement involves a periodic evaluation of investment in order to determine that at each stage, the target objectives are being achieved and in essence a form of follow-up appraisal to monitor the current state of an investment and if necessary, ensure future improvement. Bello (2003) observes that performance measurement can be undertaken to identify the reasons for good or bad performance, the impact of capital expenditure on physical improvement,

restructuring and to investigate the effect of depreciation or obsolescence on project development. Udoudoh (2016) believes that the primary objective of performance analysis is to measure the effectiveness of unit decision and management activities. He added that performance monitoring allows resource managers to check progress and to confirm results while appraisal of project performance on regular basis will enable the management to assess how well each of the assets has done against original expectations and other assets in the corporation. Kalu (2001) stated that in performance appraisal, the main measure is the overall or total return which is further disaggregated into income return and capital appreciation. The total return produced by capital invested over a time period is given as follows:

Total Return

$$TR_t = \frac{NI_t + (CV_t - CV_{t-1})}{CV_{t-1}}$$

Where:

$TR_t$ = Total return for period t

$CV_{t-1}$ = Capital value at the beginning of period t

$CV_t$ = Capital value at the end of period t

$NI_t$ = Net income received during the holding period t

Risk refers to the possibility that the actual outcome of an investment will differ from its expected outcome. Put differently, risk refers to the variability or dispersion and if an asset has no variability, it is riskless (Chandra, 2012). Risk is used to describe the unpredictability of the financial consequences of investment decisions. In

this context, modern investment analysis identifies risk with the volatility or the degree to which the actual return from an investment can vary above or below the expected return (Ajayi, 1998). Though risk and uncertainty are sometimes used interchangeably, Kalu (2001) distinguished risk from uncertainty because three situations arise in investment decision making such as certainty, uncertainty and risk. He noted that in certainty, there is likelihood of the event occurring and there is likelihood of measuring the probability of its occurrence. Uncertainty means that the probability of the occurrence of a particular event is not known. He further differentiated risk from uncertainty and noted that while the probability of outcomesis known or can be estimated for risk, the probabilities of possible outcomes are neither known nor can be estimated for uncertainty. The measure of risk is the standard deviation given as:

Standard Deviation

$$SD = \sqrt{\frac{\Sigma (X - \bar{X})^2}{N}}$$

Where:

SD = Standard deviation

X = Asset periodic return

$\bar{x}$ = the mean

N = Number of observances

## 1.2 Studies on risk-return performance of residential real estate investment

Several studies have been conducted on the performance of real estate investments and comparing it with other investments either in stocks, shares and bonds. These studies have been conducted both in the developed and developing countries including Nigeria.These studies examined the performance of real estate investments from different perspectives especially in the United States and United Kingdom. Kuhle & Bhuyan (2009) in their study of a recent comparative analysis of real estate funds and common stocks examined the risk-return performance of real estate mutual funds compared to common stocks. This was done by analyzing average returns, standard deviation and risk adjusted return for seven different mutual categories including real estate mutual funds. The study found that REITs mutual fund category ranks either first among the risk adjusted performance factor even though average returns were not ranked first. They concluded that REITs mutual fund have exhibited minimal volatility when measured by the standard deviation of returns. They also asserted that once considered an after-thought in the financial literature, it appears that REITs mutual funds deserve a second look as a visible, stable, investment vehicle for long term capital growth. Another study was by Zerbest & Cambon (1984) on the performance of real estate assets and REITs, they assessed historical risk and returns and compared to the performance of other assets such as stocks and bonds. They compared their returns, standard deviation and coefficients of variation. They noted that during the periods of inflation, real estate

assets performed slightly better than common stocks, fixed income investments and the rate of return.

Newell, Chau, Wong and McKinnell (2005) studied the dynamics of the direct and indirect real estate markets in China. The study also examined the risk-adjusted performance of direct real estate markets in Beijing, Shanghai, Guangzhou and Shenzhen – China and the indirect real estate markets in China from 1995 to 2002, as well as assessing the dynamics between these two important real estate markets in China. For the eight years period under review, the office markets and real estate companies were seen to under-perform significantly the other asset class on risk-adjusted basis. Evidence from portfolio diversification benefits was also seen for both the office markets and the retail real estate companies in China. On risk-adjusted basis, the Shanghai office market was the best performed office market and the Shanghai real estate companies' sector was the best performed of the real estate company sector.In Botswana, Kampamba & Nnang (2016) conducted a study on a comparative analysis of the performance of real property investments and shares. They used statistical measures of variability such as mean, variance and standard deviation in analyzing their data. The findings from their study indicate that property offered better returns than shares even though it was considered riskier under the period of the study. Hwa (2002) examined the performance of the residential sector in Malaysia between 1989 and 2001. His study laid emphasis on risk-return comparison of residential risk-adjusted performance with equity investments. He evaluated the diversification benefits of the investment media through correlation analysis. The findings from the study indicate that detached houses provided higher capital appreciation compared to the other form of housing. He concluded that population growth rate and location are the major drivers of residential property performance in Malaysia.

In Nigeria, Bello (2003) compared the performance of residential property investment and investment in securities from 1996 – 2000. This study found that property underperformed ordinary shares in terms of internal rate of return and risk adjusted measures. He noted that residential property investment is more secured than investment in ordinary shares. Adegoke (2009) examined the investment performance of residential properties in Lagos metropolis and comparing them with selected shares from 2003 – 2007. The results of his study showed that stocks outperformed residential real estate investment in terms of return. On a risk-adjusted basis, residential properties performed better than shares. Udobi et al (2017) conducted a study on the comparative analysis of the performance residential real estate investments in selected urban areas of Anambra state. The study was conducted in Onitsha and Awka and comparing the returns of the two urban areas shows an annual mean return and geometric mean return of approximately 8.8% over the 24 years period while the risk of residential property investment in Awka was 29.2% and Onitsha was 26.3.% respectively. On the basis of risk, the study concluded that the risk associated with investment in residential property in Awka was higher than that of Onitsha and therefore, residential property investment in Onitsha is preferred to Awka

which is slightly riskierthan that of Onitsha. Wahab et al (2017) examined risk-return performance of residential property investment in Abuja with a view to determine the most performed market and the level of risk associated with each sector of the residential property market. The result of the descriptive analysis across the twelve markets showed that Gwarinpa 3 bedroom and 4-bedroom markets performed better than other locations and it is the least volatile markets at 35% and 43% respectively. The result of the study tested with ANOVA revealed that the bulk of significant differences in property returns were found in Maitama markets. The study concludes that returns from Gwarinpa markets are relatively stable and having the least risk per unit of 3 bedroom and 4-bedroom property investment with comparable average returns with other markets for any prudent investor.

Mendie (2017) assessed the performance of different types of residential properties in Calabar, Uyo and Port Harcourt. The study analyzed total return and risk-adjusted performance using rental and capital values, standard deviation and the Sharpe ratio. The findings from the study indicates that residential flats performed better in Port Harcourt, bungalows performed better in Uyo while Calabar performed better in detached/semi-detached bungalows. In terms of risk-adjusted performance, the study showed that tenements have the lowest risk in the study area. The study concluded that most property assets in Uyo and Calabar have strong diversification potential as against residential property assets in Port

Harcourt which showed little prospects for diversification. Nwankwo, Kalu and Igwe-Kalu (2018) compared and analyzed the performance of residential real estate investment in South-Eastern Nigeria from 2000 to 2016 using two states (cities) out of five i.e., Owerri and Enugu. The type of residential properties studied were bungalows, block of flats and detached houses on two floors because these are dominant property types. The study collected data from 136 estate surveyors and valuers in private practice on annual and rental capital values of properties managed by them. The yearly returns on investment were computed from the appraised capital values and annual rental values of the various types of residential properties from 2000 to 2016 with the use of holding period return. The result of the study shows that best performance in Enugu was 4-bedroom bungalow in Trans-Ekulu and block of 6 flats in Achara Layout which shows the lowest risk-return relationship. The study shows that the best performance in Owerri was also 4-bedroom bungalow in Aladinma having also the lowest risk-return relationship. This study concluded that investors should consider investing in 4-bedroom bungalows in Aldinma, Owerri or Trans-Ekulu and block of 6 flats in Achara Layout, Enugu.

Nissi, Diala and Ezema (2019) analyzed the performance of residential property investment in Enugu Urban from 2010 to 2017. The study conducted a comparative analysis of investment performance of residential properties in Achara Layout, New Haven and Ogui Road. The study also

adopted the purposive sampling technique in selecting 10 units from each location making a total of 40 units. Data was collected on rental and capital values for a period of eighth (8) years and the data was analyzed using arithmetic mean return, standard deviation and coefficient of variation. The findings from this study show that residential property investment is more secure in New Haven than at Achara Layout with a return 7.19%, 2.83% risk and 39.86% coefficient of correlation. Residential properties were also seen to less secure in Achara Layout with 9.4% return, 5.29% risk and 56.28% coefficient of variation. The study also concluded that real estate investors should carry out assessment of past performance of similar investment before undertaking real estate investment. Okonu Al-Ameen et al (2019) compared and analysed risks and returns on residential property sub-markets in Lagos using the 1004 Estate. The study looked at various risk status of each of the sub-markets of residential property and returns in all the apartments in the estate while examining their diversification potential within the sub-markets. The study used mainly secondary data from the property managers from 2010 to 2017. The findings from the study indicate that the risk inherent in all the apartments was high with strong relationship in return between the apartments. The implication of this finding is that all apartments moved in the same direction and such making it unfit for diversification. The study discourages diversification within a particular real estate sub-market. Nasiru et al (2020) examined the structure and conduct of risk-return characteristics of residential property in four different locations in Kaduna metropolis. The study adopted the survey research design and data was collected through the questionnaire and the data was analysed using weighted means and standard deviation. The findings from the study show that residential properties produced different total returns and risk-return characteristics. The study also shows that Barnawa with 12.68% produced the highest total return for a parlour and self-contained apartments with risk-return profile of 4.56%. Barnawa also have the highest total return for 2 bedrooms flat, Ungunwa-Rimi produced the highest total return for 3-bedroom flats. In terms of risk, a parlour and self-contained in Ungunwa-Rimi has the least risk and more secured, Sabon-Tasha has the least risk for 2 bedroom and 3-bedroom flats respectively.

## 2.0 Materials and methods

The survey research design was adopted for this study. The study area is Calabar and Uyo metropolises. The population of the study comprised of residential real estate investments in Calabar and Uyo. Data on rental values of residential properties in Calabar and Uyo was provided by estate surveying and valuation firms in the two cities for the period under review. On the other hand, the capital values were computed using the rental values provided by applying the appropriate yield or years purchase to it provided in secondary data in the study area. Purposive sampling technique was used in the selection of the 50 residential properties from each of the two cities in the study area and ten firms in each city were asked to provide data on rental values for five residential properties. The total sampled properties were 100 in the study area since it is difficult to study the

whole residential properties in the study area. Primary data was collected form the selected residential properties in the study area on rental values as provided by estate surveying and valuation firms. From the data provided, mean or average rental values were derived for all the classes of residential properties studied. Data was analyzed using the mean total returns formula while total risks were computed with the use of standard deviation and the hypotheses was tested using the analysis of variance (ANOVA) to test for significant difference in total return and risk in the study area.

## 3.0 Results

**Table 3.1: Mean (Average) total return and total risk for residential real estate investment in Calabar**

| Types of Residential Property | Mean Total Return (%) | Mean Total Risk (%) |
|---|---|---|
| Tenements | 12.13 | 3.69 |
| 1 Bedroom Flat | 13.72 | 4.95 |
| 2 Bedroom Flat | 11.47 | 5.56 |
| 3 Bedroom Flat | 11.24 | 3.88 |
| 2 Bedroom Detached Bungalow | 11.34 | 2.44 |
| 3 Bedroom Detached Bungalow | 10.91 | 3.35 |
| **Mean Total Return & Mean Total Risk** | **11.80** | **3.99** |

**Source:** Researcher's Field Work, 2019

The analysis of total return and risk for residential real estate investment in Calabar is as shown in table 3.1 above. Six sectors of the residential real estate markets were analyzed for a period of 10 years (2009 – 2018) and their mean total return and risk also analyzed. From table 4.1, tenements in Calabar have mean total return of 12.13% and risk of 3.69%. One bedroom flat has a mean total return of 13.72% and 4.95% risk, two bedrooms flat with mean total return of 11.47% and 5.56% risk, three bedrooms flat having a mean total return of 11.24% and risk of 3.88%. For detached bungalows in Calabar, two-bedroom detached bungalow has a mean total return of 11.34% and 2.44% risk while three-bedroom detached bungalow has 10.91% as mean total return and 3.35% as risk. In terms of performance of the six residential sectors of the residential real estate investment studied in Calabar, one bedroom flat outperformed the others with a mean total return of 13.72%. In terms of risk performance, two bedrooms flat have the highest risk of 5.56% while two-bedroom detached bungalow has the least risk of 2.44%. On the whole, the mean total return of all the residential real estate

investment is 11.80% and mean total risk of
3.99%.

**Table 3.2: Mean (Average) total return and total risk for residential real estate investment in Uyo**

| Types of Residential Property | Mean Total Return (%) | Mean Total Risk (%) |
|---|---|---|
| Tenements | 10.55 | 5.65 |
| 1 Bedroom Flat | 13.33 | 3.78 |
| 2 Bedroom Flat | 10.81 | 2.51 |
| 3 Bedroom Flat | 12.1 | 4.14 |
| 2 Bedroom Detached Bungalow | 9.73 | 2.47 |
| 3 Bedroom Detached Bungalow | 11.01 | 4.61 |
| **Mean Total Return & Mean Total Risk** | **11.26** | **3.86** |

**Source:** Researcher's Field Work, 2019

The analysis of total return and risk for residential real estate investment in Uyo is as shown in table 3.2 above. Six sectors of the residential real estate markets were also analyzed for a period of 10 years (2009 – 2018) and their mean total return and risk also analyzed. From table 4.2 above, tenements in Uyo have mean total return of 10.55% and risk of 5.65%. One bedroom flat has a mean total return of 13.33% and 3.78% risk, two bedrooms flat with mean total return of 10.81% and 2.51% risk, three bedrooms flat having a mean total return of 12.1% and risk of 4.14%. For detached bungalows in Uyo, two-bedroom detached bungalow has a mean total return of 9.73% and 2.47% risk while three-bedroom detached bungalow has 11.01% and mean total return and 4.61% as risk. In terms of performance of the six residential sectors of the residential real estate investment studied in Uyo, one bedroom flat also outperformed the others with a mean total return of 13.33%. In terms of risk, tenements have the highest risk of 5.65% while two-bedroom detached bungalow also have the least risk of 2.47%. On the whole, the mean total return of all the residential real estate investment is in Uyo 11.26% and mean total risk of 3.86%.

## 4.0 Discussion

**Table 4.1: Mean and standard deviation of total returns on residential real estate: location by house type**

| House Type | Property Location | N | Mean | Standard Deviation | Standard Error |
|---|---|---|---|---|---|
| Tenement | Calabar | 9 | 12.133 | 3.911 | 4.078 |
| | Uyo | 9 | 10.547 | 5.990 | 4.078 |

| | | | | | |
|---|---|---|---|---|---|
| | **Total** | **18** | **11.340** | **4.906** | 4.078 |
| One Bedroom | Calabar | 9 | 13.722 | 47.118 | 4.078 |
| | Uyo | 9 | 13.333 | 4.007 | 4.078 |
| | **Total** | **18** | **13.528** | **25.563** | 4.078 |
| Two Bedroom | Calabar | 9 | 11.467 | 5.902 | 4.078 |
| | Uyo | 9 | 10.811 | 2.665 | 4.078 |
| | **Total** | **18** | **11.139** | **4.284** | 4.078 |
| Three Bedroom | Calabar | 9 | 11.244 | 4.115 | 4.078 |
| | Uyo | 9 | 12.100 | 4.291 | 4.078 |
| | **Total** | **18** | **11.672** | **4.203** | 4.078 |
| Two Bedroom Det. Bungalow | Calabar | 9 | 11.341 | 2.520 | 4.078 |
| | Uyo | 9 | 9.733 | 3.110 | 4.078 |
| | **Total** | **18** | **11.126** | **2.815** | 4.078 |
| Three Bedroom Det. Bungalow | Calabar | 9 | 10.911 | 3.549 | 4.078 |
| | Uyo | 9 | 11.011 | 4.885 | 4.078 |
| | **Total** | **18** | **10.961** | **4.217** | 4.078 |
| Total | Calabar | 54 | 11.801 | 19.829 | 1.665 |
| | Uyo | 54 | 11.256 | 4.273 | 1.665 |
| | **Total** | **108** | **11.529** | **12.051** | 1.665 |

**Source:** Researcher's Field Work, 2019

The results from Table 4.1 and for tenement properties, mean return was highest in Calabar ($\bar{x}$ = 12.133) and the least was Uyo ($\bar{x}$ = 10.547). For one bedroom flat, the mean total return was highest in Calabar ($\bar{x}$ = 13.722) and least in Uyo ($\bar{x}$ = 13.333). This pattern was also observed in two bedrooms flat. In the case of three-bedroom flat, the highest mean total return was seen in Uyo ($\bar{x}$ = 12.100) and least in Calabar ($\bar{x}$ = 11.244). This pattern was also observed for three-bedroom detached bungalow. For two-bedroom detached bungalow, the highest mean total return was observed in Calabar ($\bar{x}$ = 11.340) and least in Uyo ($\bar{x}$ = 9.733). On the whole, the highest mean total returns on residential real estate investmentswere observed in Calabar ($\bar{x}$ = 11.801) and the least was Uyo ($\bar{x}$ = 11.256). The results of the two-way ANOVA are presented in Table 4.5.

**Table 4.2: Two-Way ANOVA of total returns on residential real estate: location by house type**

| Source of Variation | Sum of Squares | Df | Mean Square | F-Value | P-Value |
|---|---|---|---|---|---|
| Corrected model | 3240.313 | 17 | 190.607 | 1.273 | .218 |
| Intercept | 24457.839 | 1 | 24457.839 | 163.381* | .000 |
| House Type | 1445.457 | 5 | 289.091 | 1.931 | .093 |
| Location | 321.107 | 2 | 160.553 | 1.073 | .345 |
| House Type X Location | 1473.750 | 10 | 147.375 | 0.985 | .460 |
| Error | 21555.803 | 144 | 149.693 | | |
| Total | 49253.954 | 162 | | | |
| Corrected Total | 24796.116 | 161 | | | |

* Significant at .05 level. $P < .05$

The results in Table 4.2 reveal that only the P-value (.000) associated with the computed F-value (163.381) is less than .05 The P-values (.218, .093, .345 & .460) associated with the computed F-values (1.273, 1.931, 1.073 & .985) for the corrected model, house type, location and house type by location respectively are greater than .05. As a result, the null hypothesis was not rejected. This means that total returns of residential properties is significant by the type of house as well as the location of the property.

**Table 4.3: Two-Way ANOVA of risk in residential real estate investment: house type by location**

| House Type | Property Location | N | Mean | Standard Deviation | Standard Error |
|---|---|---|---|---|---|
| Tenement | All | 2 | 4.625 | 3.327 | 3.076 |
| One Bedroom Flat | " | 2 | 4.326 | 2.598 | 1.500 |
| Two Bedroom Flat | " | 2 | 4.035 | 1.528 | .882 |
| Three Bedroom Flat | " | 2 | 4.010 | .156 | .090 |
| Two Bedroom Det. Bungalow | " | 2 | 2.455 | 3.051 | 1.762 |

| Three Bedroom Det. Bungalow | " | 2 | 3.980 | 2.366 | 1.366 |
|---|---|---|---|---|---|
| Total | Calabar | 6 | 3.978 | 1.122 | .458 |
| | Uyo | 6 | 3.860 | 1.233 | .503 |
| | Total | 18 | 5.162 | 2.835 | |
| **Source of Variation** | **Sum of Squares** | **Df** | **Mean Square** | **F-value** | **P-value** |
| Corrected model | 136.638 | 17 | 8.038 | 1.634 | .069 |
| Intercept | 479.570 | 1 | 479.570 | 97.495* | .000 |
| House Type | 31.833 | 5 | 6.367 | 1.294 | .084 |
| Location | 55.619 | 2 | 27.810 | 5.654* | .000 |
| House Type X Location | 49.186 | 10 | 4.919 | | |
| Total | 616.208 | 18 | | | |
| Corrected Total | 136.638 | 17 | | | |

* Significant at .05 level. P < .05

From Table 4.3, the highest mean risk of residential real estate investment was in tenement buildings ($\bar{x}$ = 4.265), followed by one bedroom flat ($\bar{x}$ = 4.365) and the least was for two-bedroom detached bungalow ($\bar{x}$ = 2.455). By location, the highest mean risk was observed in Calabar ($\bar{x}$ = 3.978) and the least was Uyo ($\bar{x}$ = 3.860). The P-values (.000) associated with the computed F-values (97.493 & 5.654) for the intercept and location respectively, are less than .05, but the P-values (.069 & .084) associated with the F-values (1.634 & 1.294) for corrected model and house type respectively are greater than .05. Thus, the null hypothesis with respect to the intercept and location effect was rejected while those for corrected model and house type were retained. This means that location of property is a significant determinant of risk but house type is not.

The results presented shows that there is a significant difference in the total returns of residential real estate investments in Calabar and Uyo metropolises. The findings from the result indicates that Calabar has the highest mean return of 12.13% for tenement buildings compared to Uyo with 10.55%. In the case of one bedroom flat, the mean return was highest in Calabar with 13.72% compared to Uyo with 13.33%. Two bedrooms flat followed the same pattern with Calabar showing the highest mean return with 11.47% as compared to Uyo with 10.81%. Uyo produced the highest mean return of 12.10% for three bedrooms compared to Calabar with 11.24%. For two-bedroom detached bungalow, the highest mean was observed in Calabar with 11.34% as compared to Uyo with 9.73%. For three bedrooms detached bungalow, residential properties in Uyo produced the highest mean

return of 11.01% compared to Calabar with 10.90%. On the whole, comparing residential real estate investment performance in Calabar and Uyo shows that Calabar residential market outperformed that of Uyo with mean total return of 11.80% compared to Uyo with mean total return of 11.26%. Therefore, total returns of residential properties are significantly different in Calabar and Uyo.

The risk of the residential properties in the two cities studied were also compared and the ANOVA result shows that the highest mean risk for residential property investment in the study area was in tenement buildings with total risk of 4.625%, followed by one bedroom flat with 4.365% and the least risk was observed in two-bedroom detached bungalow with total risk of 2.455%. When the residential property risks were compared by location, residential property in Calabar has the highest risk of 3.98% and the least risk was in Uyo with 3.86% risk. When the risks were taken based on each class of residential properties in Calabar, two-bedroom flat has the highest risk of 5.56% followed by one bedroom flat with 4.95%, third is three-bedroom flat with 3.88%, fourth is tenements with 3.69% while three-bedroom detached bungalow came 5th with 3.35% and least risk was in two-bedroom detached bungalow with 2.44%. In Uyo, the risk was highest in tenements with 5.65%, followed by three-bedroom detached bungalow with 4.61%, next is two-bedroom detached bungalow with 4.14%, the fourth was one bedroom flat with 3.78%, fifth was two-bedroom flat with 2.51% and least was two-bedroom detached bungalow with 2.47% respectively. On the whole, the result shows that there is significant difference in

the total risk of residential real estate investment in Calabar and Uyo Metropolises.

**5.0 Conclusion**

Comparison of the residential real estate investments in Calabar and Uyo shows that their performance differs both at the type of use and location. Residential real estate investments in Calabar performed better than residential real estate investments in Uyo. In terms of risk-return performance, residential real estate in Uyo is less risky than Calabar and risk averse investors will prefer to invest in Uyo residential property market than Calabar. On the other hand, risk takers will prefer to invest in the Calabar property market as the higher the risk, the higher the return from the investment. The implication of this finding is that it is riskier to invest in residential real estate investment in Calabar than that of Uyo. The findings from the study can also be useful in the understanding of the Nigerian real estate market in different cities and other developing countries. The result will be of benefit to real estate and institutional investors as well as policy makers in taking decisions on residential real estate investments. The findings of this result can also be very useful for investment forecasting, decision making on the type of asset to be included in an investment portfolio as a measure for protecting investor's earnings and help in minimizing risk. The study also indicate that it is less risky for real estate investors in Calabar and Uyo to invest in two-bedroom detached bungalows which shows the lowest level of risk in the two cities. The study therefore recommends that real estate investors wishing to invest in real estate within Calabar and Uyo property market should

have a fair knowledge of the dynamics of the property market in the study area. There should be periodic assessment of the performance of real estate investment return and risk analysis. Real estate investors should also diversify their investments and not just focusing only on the residential sector of the property market as this would help to minimize risk.

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