

A Comparative Analysis of Residential and Retail Commercial Property Investments Performance in Ilorin, Nigeria.

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Abstract

The paper examines the performance of real estate investments in Ilorin, Nigeria. It conducts a comparative analysis of the performance of residential and retail commercial property investments within the period of year 2000 and 2011; focusing on average return, risk adjusted return, income growth and capital appreciation. The results showed that retail commercial property investments performed better than residential property investments with a mean annual return of 14.2% as against 11.8%. In addition, commercial property investments performed better in terms of risk adjusted return with sharp index of 1.11 as against 0.55 for residential property investments. In terms of income and capital growth, the performance of commercial property investments was also higher during the period of measurement. The study concluded that while both residential and commercial property investments performed well with positive mean returns and risk adjusted returns, commercial property outperformed residential property investments.

Keywords: Property Investment, Performance Analysis, Real Estate, Investment Decision, Nigeria

1. Introduction

The study of performance of real estate investment, whether residential or commercial, is very important at this time when emphasis is on investment performance analysis in many parts of the world. This is even more important in Nigeria where only few studies have been carried out on the level of performance achieved by property investment. Moreover the impact of the ongoing changes in the global and local economy on the performance of real estate investment is serving to highlight the need for its careful consideration in the investment decision making process.

Since 1990s, the demand for retail commercial outlets has risen astronomically in most urban centers in the country. This is as a result of the economic recession which compelled the unemployed and public servants to explore trading activities in addition to their normal jobs. The investors' reaction to this development has been to increase the number of retail commercial outlets at the expense of residential property developments. Therefore in many towns and cities of Nigeria, open spaces within the vicinity of public institutions have been irrationally developed to accommodate shops and other retail outlets. The situation is further compounded with the perceived notion among Nigerian property investors that commercial property performs better than residential property investment. However, the investors can no longer base their decision on intuitive grasp of the market which Ajayi and Fabiyi (1984) considered inadequate for success in property ventures.

The central theme of this paper therefore is to examine the performance of residential and commercial property investments in the study area. This will provide for better investment decision and risk management for real estate investors in Ilorin and comparable locations in Nigeria.

2. Literature Review

It is widely recognized that several studies that have relevance to this study have been conducted particularly in the United States of America (USA), the United Kingdom (UK) and other developed and some emerging economies. These studies examine the performance of real estate investments from different perspectives. Among the studies that have helped to explain the performance of real estate are Wendt and Wong (1965), Brueggman et al (1984), Zerbst and Cambon (1984). These studies compared the performance of real estate with the performance of

non-real estate investments such as stocks and bonds. The major conclusion from the studies is that real estate performed better than other investment and also act as an overall risk reducer when included in a portfolio.

Some other studies examined the linkages between direct real estate and indirect real estate investment performance. Among them are Giliberto (1990), Newell, Matysiak and Venmore-Rowland (1997), McAllister (2000), Newell, Chau and Wong (2004), Newell, Chau, Wong and McKinnell (2005), Hoesli and Lizieri (2007), Newell and Hsu (2007) and Newel et al (2009) who considered the performance of direct real estate along that of indirect real estate investment represented by listed companies and REITs returns in the UK and USA respectively. The outcome of the studies suggested that direct real estate produce lower returns and lower risk, and that indirect property investment behaves partly as stocks and partly as real property investment. This has also been confirmed with recent literatures on performance of real estate with particular references to case studies of Nigerian property market as discussed below.

Among studies that have examined the performance of residential alongside retail property are Miles and MicCue (1982), Webb and Sirmans (1982), and NCREIF (1984). In the a study conducted in US, Miles and MicCue (1982) examined the rates of return on different types of properties held by sixteen Real Estate Investment Trusts (REITs) over the period of 1972 – 1978. The study which employed regression equation estimate found that residential property performed better than retail during the period of study. Although, the study was a good attempt at analyzing the comparative performance of different property types, it failed to examine the risks associated with each of the property sectors. Another US study by Webb and Sirmans (1982) bridged the gap left by Miles and MicCue (1982) by analyzing the return and risk on different types of real estate property over the period of 1966 – 1976. The study employed real estate data from the American Council of Life Insurance and estimated the investment yields of specific property types for fifteen companies. The results of the study showed that retail property performed better than residential property in terms of return. However, the empirical result indicated that retail property was riskier than residential property.

National Council of Real Estate Fiduciaries (1984) employed the index of income producing properties generated by the Frank Russel Company to determine the return on different types of real estate property. The outcome of the study which considers the performance within 1978 - 1983 showed that residential property outperformed retail property in term of return. The result also indicated that residential property was riskier than retail property. Lorenz and Truck (2008) in a European study investigated the risk and return performance in European markets. The authors who conducted a comparative study of different property types across France, Germany, Ireland, Netherlands and UK found that retail property performed better than residential property in France and Germany while the residential property outperformed retail in Netherlands. The data for residential property was not available for Ireland and UK.

Many of the studies relating to real estate performance carried out in many parts of the world were done under social, economic and political situations different from Nigerian situation. Therefore their adoption to Nigerian situation cannot provide a perfect explanation to Nigerian's property market situation. The outcome of such researches can only be used as guides to solving problems in Nigeria. To solve problems of real estate investment in Nigeria, there is a need for local researches to unravel the peculiarity of our country's situation.

In the Nigerian context, some works have been done by scholars on the performance of real estate. For example, Olaleye (2000); examined portfolio management and performance of property portfolio in Lagos. The study showed that while portfolio in Ikeja performed better in terms of their mean return when compared with the free risk rate for the same period, portfolio in Yaba performed below the investor's targeted rate. Apart from the fact that this study did not focus on residential or commercial property, other some shortcomings do exist in the study. First, the study's emphasis was essentially on the performance of management and not on investment. The second limitation is premised on the size of the sample. The small sample size has the potential of distorting results by allowing the peculiar characteristics of the properties and their market to have significant effect.

Bello (2003); evaluated the relative performance of residential property and securities in Lagos in terms of mean returns, risk adjusted return, income growth and capital growth. He concluded that investment in ordinary share performed above that of residential property in absolute term and risk adjusted return. The study also showed that the risk associated with residential property is lower than that of ordinary shares. However, the study did not consider the performance of retail commercial property. Comparing the performance of retail property alongside residential property investment which this study hope to achieve, will give a broader picture of investment performance that will include intra-media comparison of property investment.

Oyewole (2006) study of direct and indirect property investments in Lagos examined the comparative performance of direct property of eight listed property companies, and UACN property development company shares within the period of 1999 to 2004. The author employed relative importance index, coefficient of variation measure and sharp

ratio to estimate mean return, risk adjusted return, income appreciation and capital appreciation. The study showed that while indirect property performed better in terms of rate of return in absolute term and capital growth, the direct property performed better in terms of risk adjusted return. The shortcoming of this study is also premised on its failure to specifically focus on residential and retail property.

Olaleye, Adegoke and Oyewole (2010) examined the characteristics of direct property and listed Property Company in comparison with other securities in the Nigerian Stock Exchange over the period of 2001 through 2007. The study evaluated the capital return and diversification potential of the investment media through the use of mean return, standard deviation, correlation and Sharp market index model. The results showed that while various investment options in real estate and stock market offered attractive returns, real estate investment outperformed stocks and offered diversification benefits for investors of a mixed assets portfolio.

Other indigenous studies such as Amidu et al (2008), Olaleye and Ajayi (2009), and Adegoke (2009), either consider the performance of property investment in general, indirect property investment or residential property investment and stocks. None of these available indigenous studies has examined the disparities between the performances of residential and retail commercial real estate investments considered in this study.

3. The Study Area

Ilorin, the study area for this work, is the capital of kwara state of Nigeria. It is located in the North Central geopolitical region of the country. Owing to the strategic location as the gateway between the Southern and Northern parts of the country, Ilorin has grown to become a confluence of cultures, populated by Yoruba, Hausa, Fulani, Nupe, Baruba, Kanuri and other ethnic groups. The city has a good network of roads, rail, and air transportation facilities linking it with Nigeria's other industrial and commercial centers.

The continuous physical, economic and population growth of ilorin has been accompanied by the occupancy of the existing space by different types of land use, mainly residential and commercial. The town in terms of residential land use is classified into high density, medium density, and low density areas. The major high density areas include the core indigenous areas such as Alore, Okelele, Adeta, Gegele, Balogun Alanama, Balogun Fulani, Balogun Gambari, and Balogun Ajikobi wards. Other high density residential areas are Ojuekun, Ibagun and Edun Street. Most of the buildings found in these areas were built during the colonial and post-colonial periods and are mainly old compound and tenement houses. The medium density areas of the town are Sabo Oke, Maraba, Fate, Tanke, and Gaa-Akanbi, Irewolede and Mandate housing estates. The majority of buildings in medium density areas are blocks of flats and bungalows with modern facilities provided. Low density areas are Government reservation areas (GRA) located far away from high density areas. The areas are Government house area, Agba dam, Offa/Herald road, and Adewole Housing Estate. Majority of the houses here are detached houses, duplexes and maisonettes, designed to house one family with adequate provision for modern facilities in them.

The three major areas of commercial activities concentration are Emir's market, Taiwo / Unity road axis, and Muritala Mohammed / Offa Garage axis. Most of properties that were hitherto designed for residential purposes in these areas have been converted to commercial properties. Apart from these major areas, several market stalls and shops owned by local governments and individuals are scattered all over the town.

4. Methodology

The survey was carried out by the use of structured questionnaires and interviews to source for data on residential and retail commercial property investments in Ilorin. Owing to the problem of heterogeneity of real property investment, the study area was zoned into high density, medium density and low density for the residential property and new central business district [CBD], old central business district and other areas for the retail commercial property. In administering the questionnaires on residential properties in each zone, the rented properties were first identified. The owner occupied buildings were disregarded. The first building to be sampled was selected randomly. The subsequent units of investigation were chosen at a uniform interval of every tenth building. A household was surveyed in each of the selected building, targeting the household head. Similarly, retail properties were sampled at a uniform interval of every fifth retail properties in each commercial district.

The questionnaires were personally delivered to the household heads of tenanted building and tenants of retail properties by trained research assistants. Administering the questionnaires on the tenants were considered appropriate for two main reasons. In the first instance, the bulk of the properties in the study areas were managed

by the quacks or property owners rather than estate surveyors and valuers thereby making it difficult to obtain processed data. Second, it afford the researcher and assistants an opportunity of obtaining firsthand information on specific properties from the occupiers who could easily be identified.

The respondents (household heads and retail operators) were requested to indicate among others, types of property, ownership and management and geographical location cost of acquisition (if any) and rent paid on each property within the period of analysis. Other information sourced for is outgoing including additional capital expenditure such as cost of refurbishment or the sum paid in consideration for an extension of a lease, data on future rent reviews and lease expirations. The total number of completed questionnaires was 356 out of 558. The rate of response (63.8 per cent) seems adequate and provides a basis of discussion in the paper.

Data so collected were analyzed using descriptive statistics, Co-efficient of Variation and Sharp index. The performance levels of the investment were generated by means of their holding period return defined as:

$$HPR_t = \frac{HPR_t = [CV_t - CV_{t-1}] + NI_t}{CV_{t-1}}$$

Where

HPR_t = holding period return in period t

CV_t = Capital value at the end of period t

CV_{t-1} = Capital Value at the end of period of t-1

NI_t = Net income received during period t

To measure the risk or volatility of the investment, standard deviation was used. It is a summary of how much the value deviate from their steady state which is:

$$S = \frac{\sqrt{\sum_{i=1}^n (X_i - \bar{X})^2}}{N} \text{ ----- (2)}$$

Where X is the mean value and N is the number of observation. The coefficient of variation was calculated as follows:

$$COV = \frac{S}{\bar{X}} \text{ ----- (3)}$$

In addition to the above Sharpe index is employed to determine the risk adjusted return performance of the real estate investment. The index is defined as:

$$\text{Sharpe Index} = \frac{R - R_f}{V} \text{ ----- (4)}$$

Where R = the average rate of return

R_f = the risk free rate of return

V = the standard deviation of the return on investment

The higher the Sharpe Index the better, the performance.

5. Results

5.1 Performance in Terms of Average Returns

The holding periods return profile of investors calculated from rental and capital value collected is shown in table1. The results as indicated in the table show that mean annual total return of the residential property range from 7.3% to 14.3%, a range of 7.0%. That of retail property range from 10.1% and 16.7%, a range of 6.6% within the same period. On the whole, residential properties are shown to have experienced a mean annual return of 11.8% as against 14.2% for retail commercial properties. The implication of the results is that retail property investment performed better than residential property investments in terms of return. The result showed that the comparative performance of two property investments conforms to the findings of the previous studies conducted in US by Webb and Sirmans (1982) and Europe by Lorenz and Truck (2008). The result differ from Miles and MicCue (1982) and National Council of Real Estate Fiduciaries (1984). However, this basic analysis is insufficient to conclude that retail property performed better. A more rigorous and more inclusive method such as co-efficient of variation and sharp index are needed to determine the risk adjusted return.

Table 1: Return on residential and retail property investments (2001 – 2011)

Year	Residential Properties			Retail Properties		
	Total return in %	Income return in %	Capital return in %	Total return in %	Income return in %	Capital return in %
2001	10.3	2.5	7.8	11.2	4.6	6.6
2002	12.9	2.6	10.3	13.6	4.3	9.3
2003	8.3	2.4	5.9	10.1	3.9	6.2
2004	7.3	2.3	5.0	15.5	4.4	11.1
2005	7.7	2.4	5.3	13.8	4.2	9.6
2006	13.5	2.8	10.7	14.8	4.8	10.0
2007	14.2	3.1	11.1	16.7	6.0	10.7
2008	14.3	3.3	11.0	14.8	4.6	10.2
2009	13.8	2.7	10.9	13.6	4.0	9.6
2010	12.9	2.8	10.1	16.5	5.5	11.0
2011	14.1	3.3	10.8	15.6	5.1	10.5
Mean	11.8	2.7	9.1	14.2	4.8	9.4

Source: Author (2012)

5.2 Performance on the Basis of Risk Adjusted Returns

In order to examine the performance in terms of risk adjusted return, the co – efficient of variation, and the sharp performance index methods were employed. The results are as shown in the table below:

Table 2: Risk Adjusted Return of Residential and Retail Property Investment.

Property Types	Means	Standard Variance	Standard Deviation	Co-efficient of Variation	Sharp per Variation	Value
Residential	11.8	78 .2	8.8	0.74	0.55	
Retail	14.2	42.8	6.5	0.46		

Source: Author (2012)

The results in table 2 revealed that the co – efficient of variation are found to be 0.74 for residential property and 0.46 for retail property investment. This has placed residential property investment as more risky than commercial property investment.

The second alternative method employed is sharp performance index. The indices in table 2 indicate that retail property investment performed better than the residential property investment during the period under study. The average index for the study period revealed that the returns on the retail property with Sharp performance value of 1.11 have an overall better performance over residential property investments with Sharp performance value of 0.55.

5.3 Performance in terms of income and capital growth

The performance of real estate investment in terms of income growth within the period of study is summarized in the table 3 below:

The results reveal that with 2000 as the base years, the rental income index of residential property rose from 105 in 2001 to 230 in 2011. During the same period, the rental income index for retail property rose from 105 to 255. The implication of this is that the rate of growth of retail commercial property income is higher than that of residential property between 2001 and 2012. . Regarding the performance in terms of capital growth, the result is as given in table 4.

Table 3: Average index for rental income of property investment

Year	Residential Property	Retail Property
2001	105	105
2002	117	124
2003	133	138
2004	144	152
2005	161	185
2006	170	218
2007	175	235
2008	184	241
2009	191	244
2010	202	250
2011	230	255

Author (2012)

A glance at the table revealed that residential property capital value index in 2001 is 105 as against 104 for commercial property capital value index. In the year 2011, these rose to 230 and 278 for residential and commercial property respectively. The result just as in case of income growth shows that the rate of capital growth in commercial property investment is higher than that of residential property investment.

Table 4: Average index for residential and retail property capital value

Year	Residential Property	Retail Property
2001	105	104
2002	117	133
2003	133	167
2004	145	191
2005	161	200
2006	178	220
2007	193	241
2008	205	251
2009	212	262
2010	223	270
2011	230	278

Sources: Author (2012)

6. Discussion and Findings

The results presented in this paper provide initial analysis of the performance of residential and retail commercial property investments in Ilorin. The results bring out some interesting features on performance over the period of measurement. The higher return, income growth and rate of capital appreciation generated by retail property investments indicate that retail property performed better in Ilorin property market. The higher co-efficient of variation attracted by residential property indicates that investment in residential property is more risky than investment in commercial property. The findings justify the behaviour of investors in property market in the study area.

6.1 Summary and Conclusion

This study has examined the performance of residential and commercial property investments in Ilorin between 2001 and 2011. The research has shown that in Ilorin commercial property investment performed better than residential property during the period of measurement. The results clearly identified commercial property as a more attractive form of investment option. In terms of means annual return, risk adjusted return, income growth and capital appreciation, commercial property performed better. In terms of risk, the results revealed that both residential and commercial property investment are somewhat risky in the study area. However, the residential property with the co-efficient of variation of 0.74 is more risky than commercial property with co-efficient of variation of 0.46.

A major conclusion from this study is that, while both residential and commercial property investment performed well with positive mean returns throughout the period, commercial property out-performed residential property not only in terms of return but also in terms of risk adjusted return. However, the danger if the trend is not checked is that the supply of retail commercial property may soon overtake the demand, leading to the problem of void, while the resultant scarcity of the residential properties may lead to acute housing shortage and associated problem. The federal government should encourage the investors in residential property through changes in monetary and fiscal policies to enhance residential property development.

References

- Adegoke, O.J. (2009). "A study of performance of residential property Investment relative to security investment in Lagos Metropolis" *Ife Journal of Environmental Design and Management*, Vol. 2 No 2 pp. 49-53
- Ajayi, C.A and Fabiyi Y.L (1984). "A critique of property investment feasibility and Viability appraisal reporting in Nigeria". *Quarterly journal of administration* April/July, 161-169
- Amidu, A. Aluko, B.T., Nuhu, M.B. and Saibu, M.O. (2008). "Real Estate Security and other Investment Assets: A comparison of Investment Characteristics in the Nigerian Stock Markets", *Journal of Property Investment and Finance*, Vol. 26 No2, pp. 151-161
- Bello, O.M. (2003). "Comparative Analysis of the Performance of Residential Property Investment and Investment in Securities in Lagos Nigeria". *The Estate Surveyor and Valuer* vol.26 (1) pp. 7- 14.
- Brueggman, W., Chen, H. and Thibodeau, G. (1984). " Real Estate Investment Funds: performance and portfolio considerations" *AREUEA Journal* (fall) pp. 333-354.
- Giliberto, M.S. (1990)." Equity Real Estate Investment Trusts and Real Estate Returns", *The Journal of Real Estate Research*, summer1990.
- Hoesli and Lizier, C. (2007).Real Estate in the Investment Portfolio, A report prepared for the Investment Strategy Council of the Royal Ministry of Finance.
- Lorenz, D. and Truck, S. (2008). "Risk and return in European property market: an empirical investigation", *Journal of European Real Estate Research*, Vol.1 No. 3. Pp. 235-253.
- McAllister, P. (2000). "Is indirect investment in international property markets justifiable", *Property Management*, Vol. 18 No. 1 pp. 25-33.
- Miles, M. and McCue, T. (1982). "Historic Returns and Institutional Real Estate Portfolios" *AREUEA Journal*, Vol. 10, No 2. Pp. 184-199.
- National Council of Real Estate Fiduciaries (1984). The NCREIF Report, Washington D.C., National Council of Real Estate Fiduciaries.
- Newell, G. and Matysiak, G. and Ven-Rowland P. (1997). " Do property company shares perform the same way as the property market" Research Findings. *The RICS*.
- Newell, G. and Hsu, W.P. (2007). "The significance and performance of retail property in Australia", *Journal of Property Investment and Finance*, Vol. 25 Iss: 2 pp. 147-165.
- Newell, G., Chau, K.W. and Wong, S.K. (2009). "The significance of Chinese commercial property in an Asian property portfolio" *Journal of Property Investment and Finance*, Vol. 27 No. 2 pp. 102-119.
- Newell, G., Chau, K.W. and Wong, S.K. (2004). "The level of direct property in Hong Kong property company performance", *Journal of Property Investment and Finance*, Vol. 22 No. 6 pp. 512-532
- Newell, G.,Chau, K.W., Wong, S.K. and McKinnell, k. (2005). "Dynamic of direct and indirect real estate in China", *Journal of Real Estate Portfolio Management*, Vol. 14 pp. 203-224.
- Olaleye, A (2000). A study of property portfolio management practice and the performance of property portfolio, an unpublished M.Sc thesis of the department of Estate Management, O.A.U. Ile-Ife, Nigeria.
- Olaleye, A. ana Ajayi, C.A. (2009). "Property Performance and Management Practice in Lagos Metropolis: An Empirical Study", *Ife Journal of Environmental Design and Management*, Vol. 2 No 1 pp. 9-19
- Olaleye, A. Adegoke, O.J. and Oyewole, M.O. (2010). "A comparative analysis of the investment features of real estate and stocks in Nigeria", *Real Estate and Development Economics Research Journal*, Vol. 2 No1 pp. 49-69
- Oyewole, M.O. (2006). A comparative study of the performance of direct and indirect property investment in Lagos, an unpublished M.Sc thesis of the department of Estate Management, O.A.U., Ile- Ife, Nigeria.
- Webb,J.R. and Sirmans,C.F.(1982). "Yields for Selected Types of Real Property vs. the money and Capital Markets", *The Appraisal Journal* April,1982.
- Wendt P.F, and Wong,S.N. !(1965)." Investment Performance: Common Stock Vs Apartment Houses " *Journal of Finance*

Zerbst, H.R.and Cambon, B.(1984). "Historical return on Real Estate Investment" *Journal of Portfolio Management*, pp.4-20.