Kaduna State University Environmental Science Journal (KESJ)
Website: *https://kesj.org.ng* ***ISSN:*** *2734-2751*
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Volume 5, Issue 1, June 2025
DOI: https://doi.org/10.66884/kesj.2025.vhya4y2y

ANALYSIS OF DIRECT AND INDIRECT PROPERTY INVESTMENT PERFORMANCE IN ABUJA, NIGERIA

Babatunde M. WAHAB[1], Matthew MAMMAN[2] and Olugbenga ALALADE[3]
[1]Department of Estate Management, Kaduna State University [2&3]Department of Estate Management, Kaduna Polytechnics
Corresponding Author: babatuunde.wahab@kasu.edu.ng

ABSTRACT

Purpose: *The study aims at analysing the performance of direct and indirect property investment in Abuja, Nigeria, with a view to determining the most performed investment option.*

Design/methodology/approach: *To achieve this aim, the study analysed longitudinal data collected from registered estate surveying and valuation firms in Abuja using simple random techniques and 150 rental and sale transactions between 2011 and 2024 were retried and analysed. The study employed descriptive techniques, including the holding period of return (total return), risk-return analysis, and risk-adjusted returns.*

Findings: *The results revealed that indirect property investment was found to be more volatile but offered attractive returns with higher risk. However, direct property investment returns were found to be less volatile and offered lower but stable and comparable returns. The result further revealed that, based on risk-return analysis of direct and indirect property investment, direct property investment outperformed indirect property investment; however, based on risk-adjusted return, indirect property investment performed better than direct property investment*

Research limitations/Implications*: The limitations include the use of only direct office property investment and the use of United Property Development Company (UPDC) share returns.*

Practical implications: ***A*** *risk-neutral investor could leverage direct property investment performance attributes over indirect property investment, while a risk lover's investor could take advantage of indirect property investment based on its risk-adjusted content.*

Originality/value *– The study revealed the 41% (0.41) and 46% (0.46) risk per unit of investment for direct and indirect property investment, respectively. The study revealed 41% (0.41) and 46% (0.46) risk-adjusted risk to return ratios for direct and indirect property investment, respectively.*

Keywords: Property Investment, Performance, Risk-Returns, Risk-Adjusted Returns, RiskContent

[1] Email: kesj@kasu.edu.ng

1.0 INTRODUCTION

Performance analysis has become highly indispensable for any prudent investor while making investment decisions. The performance of real estate investment is characterized by risk-return and risk-adjusted contents. Real estate investors' desire is to achieve maximum returns on investment at lowest possible risk while looking at sustainability of future returns (*Olaleye, 2011)*. Direct and indirect property investments are two real estate investment options in Nigeria, while direct property investment is construed to mean direct capital expenditure into real estate development, indirect property investment is an investment in property shares company quoted at floor of Nigeria Stock Exchange Market. The most prominent property share companies in Nigeria are United Property Development Company of Nigeria (UPDCN), Skye Shelter Fund (SSF) and Union Home REITs (UH-REITs) that formed three major property shares companies operated under Nigerian real estate investment trusts (NREITs) which is indirect type of property investment in Nigeria. Direct property investment in Nigeria involves both individuals and corporate investment and management under the umbrella of Nigerian institution of Estate surveyors and valuers (NIESV) and real estate development Association of Nigeria (REDAN). Majority of related studies on property investment performance measurement has focused direct property investment especially in Nigeria (Dabara, 2015; Wahab *et al.,* 2017; Obi-Aso, 2021; Agava *et al.,* 2023). Studies on indirect property investment performance especially in Nigeria property market are relatively scarce. However, the available study such as Akpan and Ogunba, (2015) compared direct and indirect property investment in Nigeria and USA, but there is need to re-evaluate the study due passage of time with particular focus on Nigeria market. Majority of the existing studies have focused on residential property investment performance (Dabara, 2015; Wahab *et al.,* 2017; Agava *et al.,* 2023) with little or limited studies on direct office property investment performance. Direct office property investment is rather preferred to other direct property investments because it formed bulk of institutional investment on real estate assets and institutional investors also formed bulk of investors in property shares companies. This study thereby focuses on analysis office direct property investment and indirect property investment in Nigeria with a view to analysing the performance of direct and indirect property investment in Abuja, Nigeria. As it is against the trend in the previous studies which mostly utilized only riskreturn as a measure of performance of property investment across different portfolio, however this study is differentiated because it will not only risk extend further by utilizing risk-adjusted return (Sharpe index) which is best tool for comparing performance of investment across two or more different portfolios.

2.0 LITERATURE REVIEW

The study reviewed studies within and outside Nigeria with a view to identifying area of convergence and divergence and identify the gap. Following are empirical studies related to direct and indirect property investment performance.

Shao *et al.*, (2015) while analysing the Sydney real estate market performance, the result of analysis of risk return proof that 3B/R and above in central business district performed better than other categories of residential property types in another locations. Adeogun *et al.*, (2017) comparatively analysed the performance of property and stock market returns in Abuja property market. The study utilized mean score, variance, standard deviation, coefficient of variation and Pearson Product Moment Correlation. The finding revealed that property shares is more risky than commercial property at 0.15605 level of risk, however, the study failed to employed Sharpe index to compare investment performance across portfolio. Ajibade and Alabi (2023) analysed the riskreturn characteristics of commercial property investment in Nigerian emerging markets. The study employed a descriptive statistic, utilizing historical data on property investment over a period of 10 years. The findings indicated that the risk-return trade-off in the Nigerian property market is significant, with high-risk areas offering greater returns, particularly in the commercial sector. Wahab et al. (2017) examined the performance of residential investment in Abuja property submarket. The result of analysis of performance of 2B/R and 3B/R using risk-return and riskadjusted returns revealed that 2B/R outperformed 3B/R based on risk-return and risk-adjusted returns. Mbah and Udobi (2019) carried out a comparative evaluation of the performance of commercial and residential real estate investments in Awka, Anambra state. The study adopted the total returns model, standard deviation and risk-return as methods of analysis. The study found that commercial real estate investment performed better than residential real estate investment on the bases of mean returns and capital appreciation. Awa et al. (2020) examined the performances of both residential and commercial real estate investment in southeastern Nigeria. The study found a progressive increase in rental and capital values of residential and commercial real estate investment within the study period. Effiong and Ogbuefi (2021) examined the risk-return performances of residential and commercial RE investment in selected cities of southern Nigerian real estate market. The finding revealed that residential real estate in Port Harcourt performed better on the basis total return as compared to Calabar and Uyo, however commercial RE investments performed best in Uyo than Port Harcourt. Obi-Aso (2021) examined the performance of FDI in commercial real estate in Nigeria real estate market between 2006 and 2017. The study adopted ex post facto research design, to analyse foreign controlled commercial real estate investments in Nigeria specifically in Lagos and Abuja. The study adopted the Jones Lang LaSalle benchmark approach to measure the for commercial real estate performance. The study revealed that yield of 4% and a capital growth rate of 21%, while there was no negative variation in FDI tax responsibilities in Nigeria and international benchmark rate cap of 30%.

Okunade and Ismail (2021) examined the financial performance and risk-return analysis of commercial real estate investments in urban centres in Jos, Nigeria. The study employed a longitudinal research design, using market risk analysis tools such as risk-return to evaluate the performance of commercial properties over a 5-year period. The findings suggested that the commercial property market in Jos offered better and favourable risk-return profile in prime locations with stable rental incomes than others. Madu and Oyetunji (2021) examined the impact of urbanization on the risk-return profile of commercial property investments in Lagos, Abuja, and Port Harcourt, Nigeria. Using a cross-sectional research design and survey methodology, the results revealed that rapid urbanization in these cities had a positive effect on property values and rental

income, leading to higher returns on investment. Eze and Okafor (2022) explored the riskreturn relationship between commercial and residential real estate investments in Nigeria from 2005 and 2020. The study utilised a holding period of return and analysed the risk contents using regression analysis and the findings revealed that commercial properties offered higher returns than residential properties but also offered higher risks due to factors like market competition and regulatory changes than residential properties. Agava Popoola and Ajayi (2023) assessed the performance of residential real estate investment in Lafia. The study employed risk-return analysis to determine the performance of residential market across the selected areas. The result revealed that Angwan Doka market outperformed other locations based on risk-return.

However, it is observed that the previous studies have been able to adequately be compared with the performance of investment across portfolio. While it is important to real estate investors to understand and identify underperforming investment, it is more important in using appropriate metrics for measuring the performance of different investment assets across different portfolio for the purpose of diversification and asset allocation. It is against this backdrop that this study intends to compare direct office property investment and indirect property investment in shares and stocks using United Property Development Company (UPDC) shares in real estate investment as proxy for indirect real estate investment in Nigeria while using yield from Debt Management Office (DMO) as proxy for free-risk yield in Nigeria used to compare investment performance across two or more portfolio.

3.0 METHODLOGY

The study utilised both primary and secondary sources of data. The primary source data comprises rental and capital values from registered estate surveying and valuation firms in Abuja while secondary data comprised the returns on real estate shares from United Property Development Company of Nigeria (UPDCN) and yield from Federal Government bond (Coupon Rate) was secondarily sourced from Debt Management Office (DMO) in Nigeria. The population registered firms in Abuja comprised 450 firm (NIESV Directory, 2025) and the questionnaires were distributed using simple random sampling technique due homogeneity of the population and 250 questionnaires returned were analysed using both descriptive and inferential statistics. The descriptive statistics comprised of mean, standard deviation, coefficient of variation and riskadjusted returns to compare the performance of the property investment while inferential statistics comprised analysis of variance (ANOVA) between direct and indirect property investment. The study employed holding period of return (HPR) and the model can be expressed as follows: Annual holding period of return (AHPR):

$$AHPR = \frac{(CV_t - CV_{t-1}) + NI}{CV_{t-1}} \qquad Equ.\ 1$$

Where CV_t is capital value at end of the year, CV_{t-1} is the capital value beginning of the year and NI represents net income or rental value.

Measure of risk volatility depicted by standard deviation expressed as follows:

$$S.D = \frac{\sqrt{\sum(X_1 - \bar{R})^2}}{} \qquad equ\ 2\ N$$

Where X_1 is an individual observation and $\bar{R}$ is the mean, and N is the total number of observations. Coefficient of Variation (CoV) was adopted to measure the risk-return contents of direct and indirect property. It measures a unit of risk taken in relative to the average return. it is expressed as follows:

$$CoV. = \frac{S.D}{\bar{R}} \quad eq\ 3$$

Where CoV is the coefficient of variation, S.D is the standard deviation, and $\bar{R}$ is average returns

Sharpe ratio: This measures performance on basis of the risk-adjusted return with reference to the free-risk yield (coupon rate) required by a prudent investor. It is therefore used to rank the performance of direct and indirect investment options. The study adopted free-risk yield on Federal Government Bond (FGB) to determine risk-adjusted return across the markets. Risk-adjusted return is depicted by Sharpe Index and can be determined as follows:

$$sharpe\ index = \frac{\bar{R} - FR}{D} \quad 4\ S.$$

Where R is the mean returns, FR is free risk yield on Federal Government Bond (FGB)at 15.5% (Debt Management Office, 2024) and SD is standard deviation.

4.0 RESULTS AND DISCUSSION

The trend in direct office property investment is presented in Figure 1. Garki office market revealed a volatile movement during the period under study, and it was found to be volatile over the period. The returns from Garki office market overlapped all other locations from 2014 to 2024 and experienced the highest return in 2020. Area 1 office market experienced a high return in 2012 and overlapped other locations at early 2012. The Wuse office market experienced the highest return in 2020. All other investment markets maintained steady and low returns over the period.

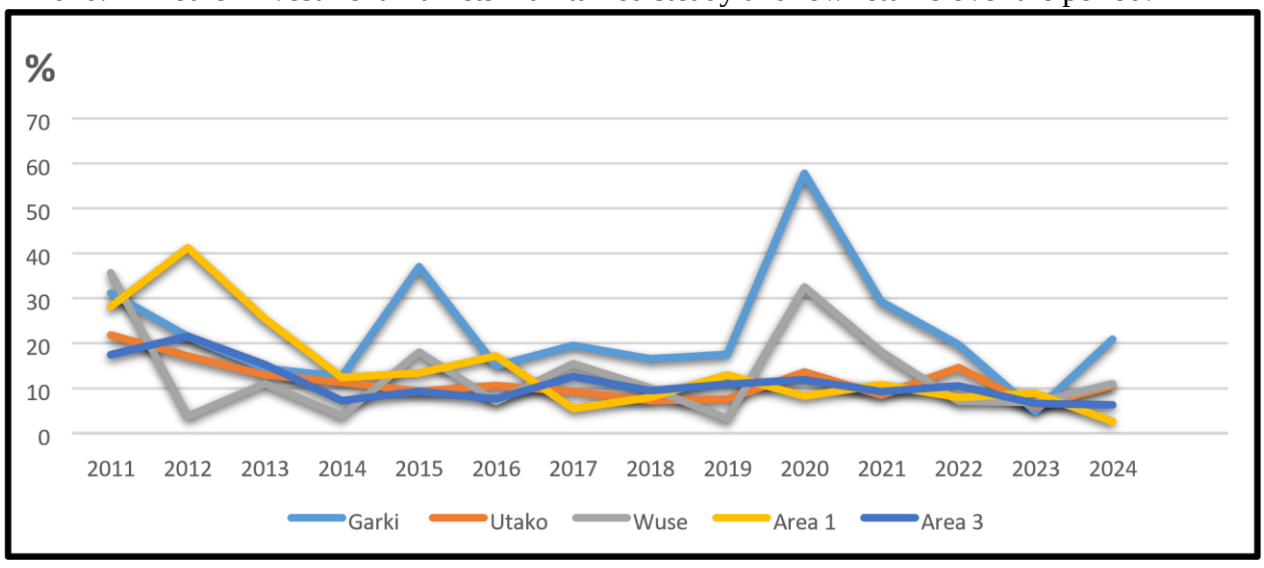


Figure 1 Trend in Direct Office Property Investment in Abuja Office Market (2011-2024)

Return on indirect property investment (UPDC) is presented in figure 2. The trend revealed high level of volatility from 2011 to 2024. The return on UPDC reached its highest returns in 2019 and lowest return in 2023.

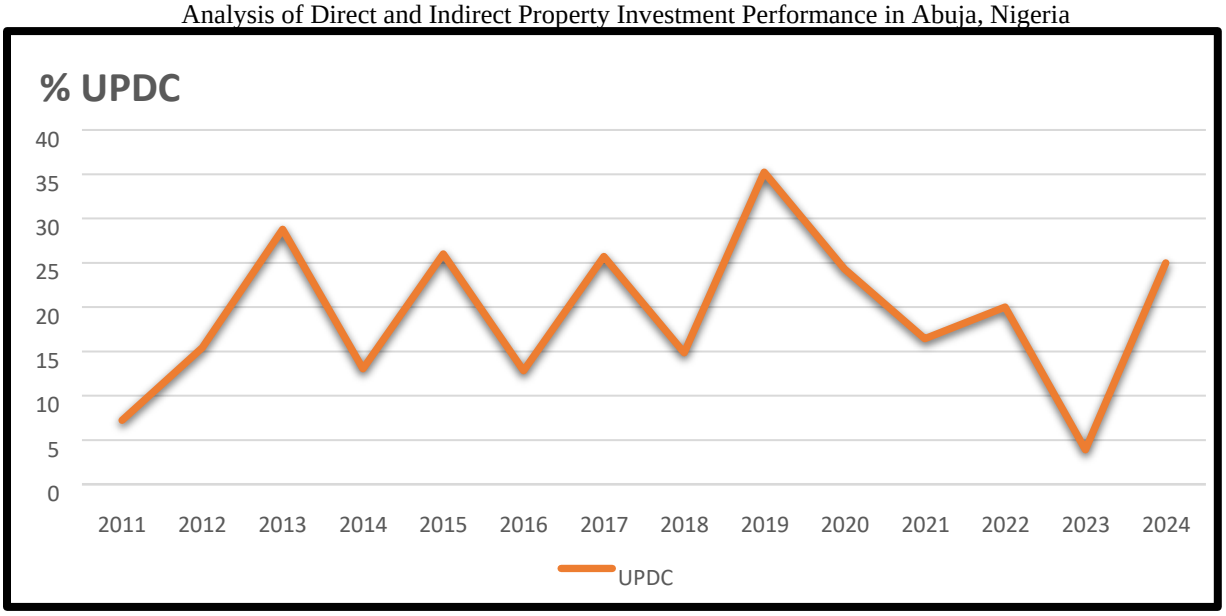


Figure 2: Trend in Indirect property investment returns (UPDC) in Nigeria.

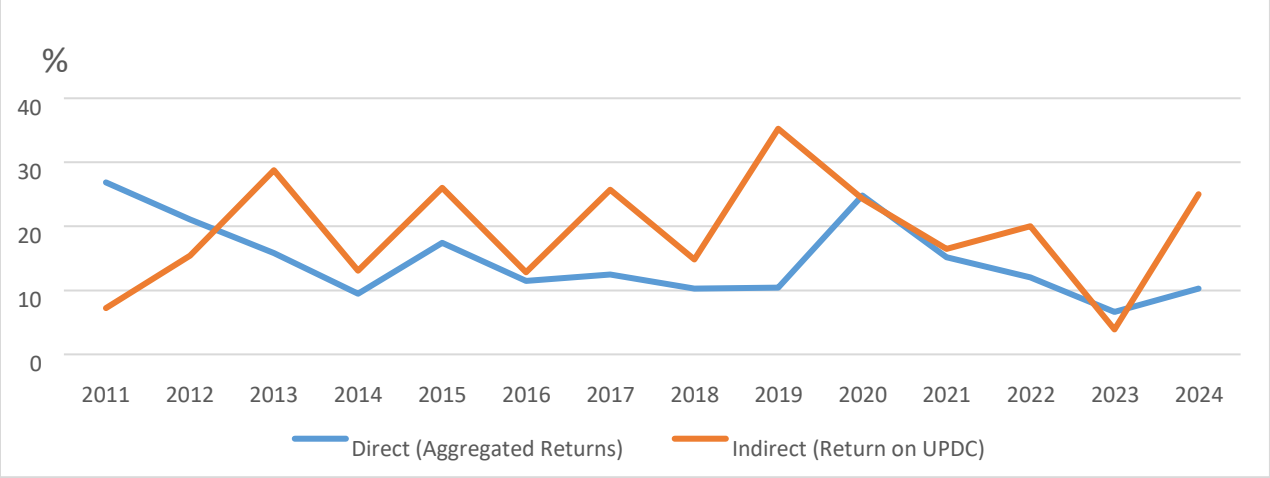
Performance of direct property investment was analysed across five direct office property investment location in the capital city of the country. The analysis was based two major measures of performance risk-return and risk-adjusted return. Risk-return measures the risk per unit of investment across office market locations. Garki and Area 1 office market returns performed best at lowest risk per unit at 0.38 and 0.39 that represented about 38% and 39% risk taken to have an average return of 11.47% and 11.145 respectively. Garki and Area 1 office market were therefore ranked 1st and 2nd the most performed direct office property investment locations on basis of riskreturns. Furthermore, risk-adjusted returns measure the performance outside portfolio using average yield on free risk yield (Federal government bond) at 15.5% (Debt Management Office, 2024). The result of risk adjusted return revealed that Garki and Areal 1 had the highest risk adjusted return at 0.93 each and, they are therefore ranked the most performed direct property investment location. Further comparative analysis direct and indirect property investment is presented in Table 2.

Table 1 Descriptive Analysis of Direct Property Investment Performance

Study areas	Mean	Standard Deviation	Risk-returns	RK	Risk-adjusted return	RK
Garki	11.47	4.31	0.38	1st	0.93	1st
Utako	13.12	10.16	0.77	6th	0.23	4th
Wuse	14.48	10.49	0.72	5th	0.10	5th
Area 1	11.14	4.39	0.39	2nd	0.93	1st
Area 3	19.20	8.75	0.45	3rd	0.42	3rd

4.1 Trend in Aggregated direct property investment returns and Indirect property investment

The trend in Aggregated direct office property investment returns and Indirect property investment returns is presented in Figure 2. The analysis of the trend revealed that indirect property investment exhibited a higher level of volatility than direct property investment over the years. However, aggregated direct office returns across locations revealed a less volatile movement. There was a gentle slope in direct property investment returns between 2011 to 2014, while direct property investment rose from behind to overlap the direct property returns over a period.



The result of the comparative analysis of direct and indirect property investment performance presented in Table 2 revealed that indirect property investment performed better based on average returns at 19.20% as against direct property investment at 14.58%. in analysis of risk-return, the lower the ratio of risk to return, the better the investment option. However, when analysing riskadjusted return (Sharpe Index), the higher the ratio of adjusted risk to return, the better the investment option. Therefore, based on risk return analysis, direct office investment performed better than direct property investment returns at 0.41 lower than 0.46, indicating about 41% and 46% risk content of the unit of investment. however, indirect property investment outperformed direct property investment based on risk-adjusted return. Indirect property investment had a higher risk-adjusted return content than direct property investment at 0.46, higher than 0.41, indicating about 46% higher that free risk yield and 41% higher than free risk yield at 15.5% Federal Government Bond, respectively.

Table 2: Comparative Analysis of Direct and Indirect Property Investment Performance

Descriptive statistics	Direct (Aggregated Returns)	Indirect (Return on UPDC)
Mean	14.58229	19.20
Standard Error	1.610587	2.338335
Median	12.232	18.225
Standard Deviation	6.026265	8.749249

Risk-return	0.41	0.46
Risk-adjusted return	0.15	0.42

4.2 Implication of Finding Conclusion and Recommendation

The comparative analysis of direct and indirect property investment performance has come up with different findings and contradictory evidence against that of previous studies. The study identified office property markets areas in Abuja and where it was found that Garki and Area 1 office market locations performed better than other locations. This finding confirmed the findings of previous studies that real estate market locations across a city performed differently (Shao *et al.,* 2015; Effiong and Ogbuefi 2021; Okunade & Ismail, 2021; Agava Popoola & Ajayi, 2023). Furthermore, Garki and Area 1 office market locations performed better than other locations based on both riskreturn and risk-adjusted returns, this finding is consistent with Wahab et al., (2017). The result of comparative analysis of trend in returns between direct and indirect property investment revealed that indirect property investment was found to be more volatile but offered attractive returns with higher risk however direct property investment return is found to less volatile and offered a lower but stable returns, this finding is consistent with Adeogun *et al.,* (2017). Based on risk-return analysis of direct and indirect property investment, direct property investment outperformed indirect property investment however, based on risk-adjusted return, indirect property investment performed better than direct property investment. By implication, direct property investment still offered relatively stable returns at lowest risk and possessed lower risk per unit of investment than indirect property investment. While indirect property investment offered higher return greater risk content due to volatility but offered higher risk-adjusted ratio comparable to any other investment options in Nigeria. The study recommends that a risk neutral investor could leverage on direct property investment performance attributes than indirect property investment while a risk lover's investors could advantage of indirect property investment based on its risk-adjusted content.

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