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Comparative analysis of investment in stock and residential property in Bida Niger State, Nigeria

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Abstract

This paper is aimed at analyzing the investment in stocks and residential property investment in Bida for the period of 2006 – 2016. In doing this, the paper examined the rate of returns on selected stocks investment and property investment. It further carried out an evaluation of the correlation between returns on both investments. The purposive sampling technique was adopted while both descriptive and inferential statistical techniques such as coefficient of variation, mean, standard deviation, analysis of variance were applied to the two classes of investment. The study reveals highest average returns of 5.22% and 7.36% and lowest of 3.43% - 3.05% for 2 bedroom and 3 bedroom respectively, which varies according to location in the study area, while the returns on selected stock when compared with the return on residential properties on the basis of average return and risk return performed better. Therefore to achieve optimum returns on investment in real property, professional guidance is required by prospective investors.

Keywords: Investment, stock, real estate, risk, returns.

Introduction

Investment largely involves the commitment of scarce resources with the sole aim of receiving higher returns or benefits. Investment can also mean any economic activity designed to increase, improve or maintain the productive quality of the existing stock of capital[1]. Investors have the choice of investing either in direct real estate or indirect real estate investment. The direct real estate investment are those made in real assets such as building, landed property etc while indirect real estate investment are in financial or paper assets such as real estate stocks and shares, real estate investment trust (REIT) etc. The diversification potentials of other viable stock are also available depending on investor's goal of investing.

Essentially, investment decision is appraised by risk and returns characteristics, which imply that investment decision, are invariably a trade-off between risk and returns[2]. The process could be managed by seeking the investment opportunity that has the best risk – returns ratio. The need to evaluate investment performance by comparing alternative investment has the potential of helping investors to diversify if need be or to retain an existing investment portfolio.

Critically, it is a known fact that private investors own most of the residential properties in Nigeria. Most of the Federal and State housing scheme have impacted on a low scale towards solving the housing problem in Nigeria and this class of investors (private sector) rarely calls for analysis of the performance of their investment, no accountability required in some cases and no conscious consideration to establish basic evaluation for future investment diversification.

Nevertheless, institutional organizations have the responsibility of answering how well the portfolio has performed relative to a property index. Furthermore, it is of utmost importance to justify why a property should be retained in the portfolio instead of being sold. These, therefore, necessitates the need for a good platform for comparing the performance of real estate with other forms of investment such as stock and shares in real estate investment.

Literature review: Investment is the act of laying out money or capital now for a future financial gain/return[3]. Also, investment as the act of making sacrifice now, which can be capital sum of asset for the prospect of later benefit or return to the investor[4]. A good investment must be generating high level of return from both income capital and physical income when compared with the initial capital outlay[5]. A good investment should possesses some good qualities[6,7]. Investment options showed that property shares and the property index showed a high positive correlation with the stock market[8]. Detached houses generate higher capital appreciation compared to housing of other form[9]. Ordinary shares are rated higher against residential property in term of absolute and risked- adjusted return[10], and the actual inflation hedging characteristics was high for ordinary share but saving account was low, while the actual inflation for property was low and high for expected inflation[11]. Investment performance of listed property and construction companies has been investigated to determine their competitive and comparative advantages over shares in the stock market[12]. Property investment is more secure than investment in bank shares and residential property investment have different characteristics that determine the rate of returns[13]. The widely held belief that

real estate equities correlate negatively with common stocks has been negated and is therefore amenable to diversification[14]. It also confirms the fear that portfolio diversification could fail during the period of financial stress, when it is totally real estate. Insight on how yield rate can be expressed depending on the application to investment evaluation exist[15]. Income yield is used to make assumption about market expectation or risk, growth and depreciation[16]. Risk has been defined as the different type and level of uncertainty, security and adverse factors associated with investments or situations generally[17]. But if the probabilities are not known, it can be concluded that the situation is that of uncertainty[18]. The relationship between yield, risk and inflation was carefully explained by Ifediora B.U.[17].

Methodology

Sample consists of three registered estate firms selected from five identified real estate firms. The firms were selected on purpose by the authors based on their perceived judgment of professionalism of the selected firms. Analysis of variance and other basic descriptive statistics were performed on the available data. The sampling unit for the study in Bida consists of four (4) neighborhood viz GRA, Poly Area, Social Welfare and Area 1 and 2.

Results and discussion

The result of analysis of variation in return on selected stock in Nigeria stock exchange is presented in Table-1. The result showed that the F-statistic at 3.3382 is statistically significant since P- value at 0.0491 is less than 0.05 level of precision. In other word, there is statistically significant difference in return on selected stocks din Nigeria, in other word, this further suggest that significant difference in return indicate one stock is performing more than the other as indicate the variation which showed the stock market that constitutes bulk of difference. Therefore OANDO stock markets constitute the bulk of variance.

Table-1: Analysis of Variation of Return on Selected Stock in Nigeria Stock Exchange.

Source of variation	SS	Df	MS	F	P-value	F crit
Between groups	5410.319	2	2705.16	3.3382	0.0491	3.31583
Within groups	24310.97	30	810.3657			
Total	29721.29	32				
UACN	21.22182	685.2681				
UBA	48.43	763.4428				
OANDO	21.31455	982.386				

Table-2: Trend in Rate of Return of 2 B/R Residential Property Investment.

Years	GRA	Poly	Social Welfare	Area 1 and 2
2006	0.02	0.02	0.01	0.01
2007	2.62	2.62	1.91	1.85
2008	3.28	2.77	2.35	2.84
2009	3.79	3.42	3.01	3.04
2010	4.52	3.77	3.08	3,08
2011	4.78	4.27	3.94	3.15
2012	5.68	4.77	4.08	3.15
2013	6.95	5.77	4.31	4.05
2014	7.88	6.77	4.51	4.11
2015	8.85	8.02	5.18	4.12
2016	9.01	9.51	5.32	4.19
Av. Rate	5.22	4.66	3.43	3.05

The trend revealed annual increase in the rate of return of two bedroom property investment across study area over the period under study (2006-2016). The result showed annual increase in value and rental growth of the investment. In GRA return moved from zero digits in 2006 to single digit in 2007. The highest rate of return was 2016 at 9.01% and annual average rate of return over the period is given by 5.22% over the period of 11 years (2006-2016). In Poly Area, the movement in return showed zero digits in 2006 and moved to single digit between 2007, and between 2007 and 2016. The highest rate of return was 2016 at 9.51% and annual average rate of return over the period is given by 4.66% over the period of 11 years (2006-2016). In social welfare area, the movement in return showed zero digits in 2006 and moved to single digit between 2007, and also between 2007 and 2016. The highest rate of return was 2016 at 5.32% and annual average rate of return over the period is given by 3.43% over the period of 11 years (2006-2016). In area 12 and 2, the movement in return showed zero digits in 2006 and moved to single digit between 2007, and also between 2007 and 2016. The highest rate of return was 2016 at 4.19% and annual average rate of return over the period is given by 3.05% over the period of 11 years (2006-2016).

The result of analysis of variance in 2B/R property return across Bida area is presented in Table-3. The result showed that the F-statistic at 2.44825 is not statistically significant different in 2B/R property return across the study area s. the result further indicates the returns on 2B/R property investment across the study areas are not different from each statistically.

Table-3: Analysis of variance in return of 2b/r residential property return.

Source of variation	SS	df	Ms	F	p-value	F crit
Between groups	34.11845	3	11.37282	2.448255	0.077679	2.8387645
Within groups	185.811	40	4.645275			
Total	219.9295	43				

Table-4: Trend in the Rate of Return of 3b/R Residential Property Investment.

Year	GRA	POLY	Social-welfare	Area 1and2
2006	0.02	0.02	.02	0.02
2007	4.02	3.62	2.08	2.08
2008	4.35	3.77	2.12	2.15
2009	5.85	4.32	3.48	3.51
2010	5.85	4.32	3.48	3.51
2011	6.18	4.77	3.55	3.52
2012	8.89	6.46	4.85	4.08
2013	10.78	6.72	5.11	5.15
2014	11.01	7.27	5.98	6.04
2015	11.74	8.02	6.78	6.08
2016	12.18	9.11	7.95	7.08
Av. R	7.36	5.28	4.07	3.87

The analysis of trend in return of 3B/R bedroom is presented in Table-4. The trend revealed annual increase in the rate of return of two bedroom property investment across study areas over the period under study (200-2016). The result showed annual increase in value and rental growth of the investment. In GRA return move from zero digit in 2006 to single digit in 2007 and between 2007 to 2012 returns moved on single digit and between 2013 and 2016 return rose to two-digit, this indicates that property investment performance improved started improving in GRA since 2013.

The highest rate of return was 2016 at 12. 18% and annual average rate of return over the period is given by 7.36% over the period of 11years (2006-2016). In poly, the movement in return showed zero digits in 2006 and moved to single digit between 2007, and also between 2007 and 2016. The highest rate of return was 2016 at 9.11% and annual average rate of return over the period is given by 5.28% over the period of 11 years (2006-2016).

In social welfare area, the movement in return showed zero digits in 2006 and moved to single digit between 2007, and also between 2007 and 2016. The highest rate of return was 2016 at 7.95% and annual average rate of return over the period is given by 3.43% over the period of 11 years (2006-2016). In area land 2, the movement in return showed zero digits in 2006 and moved to single digit between 2007, and also between 2007 and 2016. The highest rate of return was 2016 at 4.19% and annual average rate of return over the period is given by 4.07% over the period of 11years (2006-2016).

The result of analysis of variance in 2B/R property returns across Bida areas is presented in Table-5. They showed that the F-statistic at 3.51717 is statistically significant since p-value at 0.02466 is less than 0.05 level of precision. In other word, there is statistically significant difference in 3B/R property return across the study areas. The result further indicates that returns on 3B/R property investment across the study areas are different from each other statistically.

Table-5: Analysis of Variance in Return of 3B/R Residential Property Return.

Source of variation	SS	DF	MS	F	P-value	F crit
Between groups	71.36001	3	23.78667	3.517178	0.024668	2.866266
Within Groups	243.468	36	6.762999			
Total	314.828	39				

Table-6: Comparative Analysis of performance of Direct Property Investment and Selected Stocks in Nigeria.

Market areas	Mean	Standard deviation	Variance	Coefficient of variation	Sharpe ratio
GRA (3B./R)	7.36	3.87	15.0104	0.53	0.77
Poly (3B/R)	5.28	2.55	6.5	0.48	1.22
Social-Welfare (3B/R)	4.07	2.33	5.4	0.57	0.37
Area 1and2(3B/R)	3.87	2.09	4.39	0.54	-1.08
GRA (2B/R)	5.22	2.79	7.81	0.53	1.51
Poly (2B/R)	4.66	2.6	6.76	0.56	0.68
Social- Welfare(2B/R)	3.43	1.57	2.47	0.46	-3.16
Area1and2(2B/R)	3.05	1.23	1.53`	0.40	-5.36
UACN	21.22	26.17	68.5	1.23	0.42
UBA	48.43	27.63	763.44	0.57	1.37
OANDO	21.31	31.34	982.39	1.47	0.35

Table-7: Analysis of variance in Returns Direct and Indirect investments.

Source of variation	SS	Df	MS	F	P-value	F crit
Between Groups	133588.6	2	66794.3	25.64115	0.000001	3.31583
Within Groups	78148.95	30	2604.965			
Total	211737.6	32				
	Average	Variance				
2B/R	118.5825	224.6462				
3B/R	122.9014	355.8812				
Return on stocks	255.6591	7234.368				

The result of descriptive analysis of performance directs property investment and selected stock in Nigeria stock exchange is presented in Table-6. Direct investment in both 2B/R and 3B/R property investment Bida showed that 2B/R investment in GRA is performing on the basis of average mean and having a comparable risk-return ration at 53% but area 1and2 has least risk-return but least average return at 3.05%. Direct investment in 3B/R in poly performing on the basis both average return and risk-return ratio. The result of the coefficient of variation on stocks of the selected companies showed that investment in UBA stock is performing better that other return at 48.43% UACN and OANDO are more risky than any investment option and they are the least performing form of investment on the basis of risk-return ration (coefficient of variation). The free risk-yield on Federal Government Bond (FGB) at 10.35% was sourced directly from Central Bank of Nigeria, and it was used to determine the Sharpe index. However, on the basis of Sharpe index or ratio, 2B/R property investment in GRA performed better than any investment option.

The result of analysis of variance in returns on direct property investment and indirect investment in stock in Nigerian stock exchange is presented in Table-7. The result showed that the F-statistic at 3.3382 is statistically significant since p-value at 0.00001 is less than 0.05 level of precision. In other word, there is statistically significant difference in returns between direct and indirect investment in stocks. In other word, this further suggest that significant difference in return indicate one investment option is performing more than the other as indicated the variance which showed the stock market that constitutes bulk of difference. Therefore indirect invest unselected stocks market constitutes the bulk of variance.

Conclusion

The study has provided basis of decision making for real investors and stock's investors. As it rightly observed from the study, direct property investment across the study area of Bida is highly immature as compared with investment in stock in that the market performance is trending on single-digit rate of returns. The average returns on stock said to be attractive to prudent inventors in that, it is trending on double-digit rate, which shows the level maturity and in stocks as compared with direct property investment in Bida.

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