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A Comparative Analysis of Returns on Real Property and other Investment Outlets in Nigeria.

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ABSTRACT

The real returns suitable for the Valuation of property investments and other investment outlets cannot be determined by their annual income a lone but by comparing the magnitude of sacrifice, quantity, timing of the expected benefits and the certainty with which expectations are held. This presupposes that investors are not interested on the amount of money they get as returns on their investments but the real value. Also, the returns on investments ought to be such as to cover the depreciating effect of inflation on future incomes, hence, the need to comparatively evaluate the total returns and inflation growth rates in property and other investment outlets. This study examined real property average total returns comparatively with other investment outlets in Nigeria to determine a reliable and suitable real return for the valuation of real property investments in Nigeria. To achieve this, data on the average total returns on property investments and the average total returns on other investment outlets in Nigeria would be collected and analyzed within the study period. Multistage and purposive sampling techniques were combined to select the study areas consisting of two cities from each of the six geopolitical zones in Nigeria. The selected cities were: Lagos, Akure, Onitsha, Enugu, Warri, Portharcourt, Kaduna, Kano, Abuja, Jos, Yola, and Maiduigiri. The study also collected secondary data on Government Bonds, Treasury Bills, Stock and Shares, Monetary policy Rate, and prime lending rate. This study period covered ten years, from 2010 to 2019. The population of the study comprised of 4,190 registered Estate Surveyors and Valuers as at November 2019. All the respondents were above eighteen years and were practicing in Nigeria. The sample sizes were determined with a simplified formula for proportions and 350 Estate Surveyors and valuers were estimated. The instrument used for the primary data collection was structured questionnaires which contained two sections with a five point likert scale. The questionnaire was face-validated by four experts: three in real estate management and a statistician. The secondary data were obtained from documented research, unpublished literatures, and conferences of scholars, Journals, Central Bank of Nigeria annual report, National Bureau of statistics report, stock exchange market reports, Valuers appraisal Journals and management and investment appraisals. Data collected were analyzed with descriptive and parametric statistics based on normality. The research hypothesis was postulated and tested. The results showed: that there was a significant relationship between the average total returns on property investments and the average total returns on other investment outlets in Nigeria. This study, therefore, recommends that for the determination of real returns that total returns should always be the basis for comparing returns on property investment and other investment outlets in Nigeria.
Keywords: Comparative analysis, Valuation, Conventional, real returns.

INTRODUCTION

The study of human behavior in 'economics' portends that man is confronted with unlimited wants which he desires to satisfy with limited and scarce resources, and as a result of the limited and scarce resources most if not all

rational investors, first of all, weigh the costs and benefits of the potential business before embarking on it. Invariably, the goal of most investors especially when the motive is financial is to maximize benefits and minimize costs, hence the need to wisely allocate and utilize the limited resources to achieve set goals and objectives. Traditionally, most Nigerians, abhor alienation of property, most would prefer a private and unadvertised sale of their property. It is never viewed as an investment which can be alienated or divested to invest in another medium although its income yielding characteristic is well appreciated. It is not viewed as other investment such as equities or even bank deposit" [1]. [2] observed that financial institutions, the main clients of Real Estate Valuers in Nigeria, are getting weary of mortgage valuations prepared by valuers. In spite of its perceived complexity, real property investment analysis is not fundamentally different from other investments in terms of investment decision, in that, the benefit stream is estimated with the assumption that investors purchase investments with the ability to produce returns within the investment period. However, the growth potentials of real property investments and other investment outlets, such as bonds, stocks and shares cannot be ascertained simply by comparing their equated yields, but also by comparing the magnitude of the sacrifice, quantity and timing of expected benefits, and the certainty with which expectations are held. This presupposes that growth potential is not restricted to income alone but also to appreciation in capital value of an investment over the holding period. It is on this premise that this study seeks to compare the average total returns on real property investment and other investment outlets in Nigeria.

Statement of Problem

In Nigeria real estate investors are expected to shoulder risks which conform to the prevalent economic and political circumstances. As such, a Valuer interprets the prevailing legal, socio-political, Technology, and as well as economic factors which affect the subject property. Invariably, investors are interested, not merely on the amount of money they are to get as return on their investment but the real value of that return. This presupposes that the returns on their investments ought to be such as to equally cover the depreciating effect of inflation on future incomes and performance, hence, the need to comparatively evaluate the average total returns and inflation growth rates in property and other investment outlets to determine the real returns suitable for the valuation of property investments in Nigeria.

Aim and Objectives

This study examines real property average total returns comparatively with other investment outlets in Nigeria to determine a reliable and suitable real return for the valuation of real property investments in Nigeria. To achieve this, data on the average total returns on property investments and the average total returns on other investment outlets in Nigeria would be collected and analyzed within the study period.

METHODOLOGY

Multistage and purposive sampling techniques were combined to select the study areas which consisted of two cities from each of the six geopolitical zones and other investment outlets in Nigeria. All sample units were given the same weight; as such every element in the population had equal probability of selection. The combination of simple random sampling and purposive selection was adopted to enable the researcher divide the population into distinct, independent strata and to draw inferences about specific subgroups. Some of the geopolitical zones have seven states such as North West and North Central whilst others have six states and South East five States. As such, their probabilities vary being that the sum of their probabilities must be equal to one. The selected cities are: Lagos, Akure, Onitsha, Enugu, Warri, Portharcourt, Kaduna, Kano, Abuja, Jos, Yola, and Maiduigiri whilst six financial investment outlets: Government Bonds,

Treasury Bills, Stocks and Shares, Monetary policy Rate, and prime lending rate were purposively selected out of other investment outlets. This study covered the period of ten years, from 2010 to 2019. For the property investment, data were collected from prime property such as banking halls, standard offices, and residential buildings on the central business districts and prime layouts of twelve states in Nigeria respectively. The population of the study was 4,190 being registered members of Estate Surveyors and Valuers in Nigeria as at November 2019. The sample sizes 350 were determined with a simplified formula for proportions at ± 5% precision. For the Primary data collection, a sample survey was used for the study. This requires the drawing up of adequate sample size which reflects the true representation of the population. The choice of the sample survey was necessitated by the need to collect substantial data from the twelve cities consisting of two cities from each of the six geopolitical zones in Nigeria. The survey instrument was designed over six months period. In the course of the survey, a mixed mode of data collection procedure was employed. The interviewer administration was used for general topics and self-administration for sensitive topics. The instruments used in the collection of data include; questionnaire, the interview and the internet- emails. The questionnaire contained an introductory letter which solicited for co-operation and assurance that any information given by the respondent will be treated in strict confidence. Questionnaires were designed and administered to Estate Surveyors that were not below 18 years of age.

The instruments (questionnaires) were given to relevant professional colleagues; a statistician, and lecturers in Real Estate Management for corrections and guidance in line with the objective of study. As such, corrections were effected and the instruments were declared valid for the study.

A total of 350 questionnaires were administered to Estates Surveyors and valuers which 320 were returned is 91.43% return rate, while 20 were not returned which is 5.71% non return rate.

Table 1 Demographic Characteristics of Estate Surveyors and Valuers.

Demography	Frequency N= 320	Percent (%)
Age group		
24. 29	18	5.6
30- 35	64	20.0
36-41	98	30.6
42-47	93	29.1
48 & above	47	14.7
Gender		
Male	262	81.9
Female	58	18.1
City of residence		
Lagos	28	8.8
Akure	27	8.4
Onitsha	27	8.4
Enugu	29	9.1
Warri	26	8.1
Port Harcourt	26	8.1
Kaduna	27	8.4
Kano	26	8.1
Abuja	30	9.4
Jos	27	8.4
Yola	24	7.5
Maiduguri	23	7.2

Source: Field survey 2019

Table 1 shows that 18(5.6%) of the respondents who are Estate Surveyors and Valuers are within the age bracket of 24 to 29 years. 64(20%) are 30 to 35years, 98(30.6%) are between 36 and 41years of age, 93(29.1) of them are42 to 47years while47 (14.7) of them are 48years and above. Out of 320 respondents, 262(81.9%) are male while 58(18.1) are female.

Data Analysis Procedures

Analysis of the data collected involves the use of descriptive and inferential statistics. The descriptive statistics merely analyzed the data in a simple and informative way for easy statements about the features of the data. The statistics include; measures of central tendency; measures of dispersion, and measures of relationship. These statistics were used to analyze and present data in a simple and acceptable form while inferential statistics which include; linear regression analysis, the paired t – test and were used to test for relationships between variables.

LITERATURE REVIEW

The essence of valuation is to determine value. In determining value one must take into account the related economic, social, and political factors which influence the thought of men. However, the effects of inflationary growth on both valuation theory and practice prompted the development of the basic 'real value' valuation models in the UK in the early 1970's as a more realistic investment model. Real value models were first heralded by Ernest Wood in the 1960s with his Inflation-Risk-Free-Yield (IRFY) model defined as a 'yield excluding inflation and real value change'. This was followed by [3] real value hybrid model. The principal argument for using the real value model over the traditional UK (ARY) all risk yield model is that the latter over-values the term (as it capitalizes the rental cash flows at the initial capitalization rate); and under-values the

reversion (as it capitalizes the current rental value at the capitalization rate). A friendlier nominal 'equated yield' (EY), a variant of the Discounted Cash Flow (DCF) model, was recommended [4]; and has remained the most popular valuation model in use in UK since the end of the 1970s. The Discounted Cash Flow (DCF) techniques are being extensively used as a check on the traditional equated yield (EY) valuations and for properties that have unusual cash flows [5]. According to the International Valuation Standards Committee (IVSC), "real property represents a considerable portion of the world's wealth, and its valuation is fundamental to the viability of global property and financial markets. The quickening pace in the globalization of investments market further underscores the need for valuations that are consistent, transparent and that are readily understood, applicable and accepted internationally [6].

In the emerging globalized world, valuations that would be relied upon internationally can therefore be produced only by a valuation profession that conforms to international standards of professional education, competence and practice. Among the internal forces that have impacted significantly on valuation theory and practice standards are the damaging criticisms from other professions and investors regarding the accuracy of valuer's estimates and reliability of his advice; and the growing awareness of academics and practitioners of the need to increase the transparency of valuation process and to adopt procedures that systematically assess and report property risks as well as to account for the uncertainties associated with valuers' opinion [7]. Today's real estate valuation profession in Nigeria stands at a crossroads necessitating a revisit in order to reposition it to perform its expected roles more effectively. Financial institutions now advance a very low percentage of values recommended by valuers, while insisting on additional collateral in order to mitigate the imminent credit risk accentuated by uncertainty in valuations [8]; [9]. As such, the financial institutions, the main clients of Real Estate Valuers in Nigeria, are getting weary of mortgage valuations prepared by valuers [10]. Hence, the need to comparatively evaluate the total returns and inflation growth rates in property and other investment outlets to assist in the determination of acceptable risk free rates for the valuation of property investments in Nigeria [11].

In spite of its perceived complexity, real estate investment analysis is not fundamentally different from other investments in terms of investment decision. Investment decision is not particularly unique to any form of investment. Therefore, to reach investment decision one has to undergo these four processes:

I. Estimating the steam of expected benefits.
II. Adjust time differences amongst expected stream of benefits from investment alternatives.
III. Adjust for differences in perceived risk associated with the alternatives.
IV. Rank the alternatives according to the relative desirability of perceived risk-return.

This four-step process is an adaptation of capital budgeting techniques employed among corporate financial analysts. Estimating the benefit stream is done with an assumption that investors purchase investments with the ability to produce returns within the investment period. While the exact nature of the trade-off will differ among investors, depending on each individual's time preference for money.

Invariably, the sooner benefits are expected to be received the more attractive investments are. To adjust time differences amongst expected stream of benefits from investment alternatives one can simply apply the payback period. This estimates the number of years required to recoup the initial cash outlay of an investment. In payback period analysis, alternative opportunities are ranked according to the time required for the anticipated cash proceeds to equal the

initial cash investment. In adjusting for time differences one must realize that some techniques adjust purely for the time value of money, such as discounted cash flow while others do not take time into consideration. Just as in timing expected benefits investors are not indifferent to the degree of uncertainty with which expectations are held.

Other Investment Outlets

A government bond is a debt security issued by a government to support government spending and obligations. Government bonds can pay periodic interest payments called coupon payments while some are sold at a discount instead. Government bonds issued by national governments are often considered low-risk investments since the issuing government backs them and as such, it pays low interest rates. Treasury bills are short-term sovereign debt securities maturing in one year or less. They are sold at a discount and redeemed at par. The Federal Government of Nigeria, through the Central Bank of Nigeria, issues Nigerian Treasury Bills to provide short-term funding for government budget deficit. Equities: Stocks and Shares-A stock is a general term used to describe the ownership certificates of any company. A share, on the other hand, refers to the stock certificate of a particular company. Holding a particular company's share makes you a shareholder. Stocks are of two types, common and preferred. Of the two, "stocks" is the more general, generic term. It is often used to describe a slice of ownership of one or more companies. In contrast, in common parlance, "shares" has a more specific meaning: It often refers to the ownership of a particular company.

DATA PRESENTATION

Table 2: The Percentages of the Tenancies that are Obtainable within the Study Locations of the Listed Real Property Investment Outlets.

Mode of rent payment/Real Property Investment Outlets.	Annually in Advance %	Annually in Arrears %	Quarterly in Advance %	Quarterly in Arrears%	Total %
Banking halls	91	0	9	0	100
Standard offices	82	2	16	0	100
Warehouses	93	0	7	0	100
Residential	74	0	26	0	100
Others	64	6	30	0	100

Source: Field survey, 2019.

From the above table 2 91% of the Banking halls had their tenancies arranged annually in advance while 9% of the Banking halls were on quarterly in advance tenancy arrangements.82% Standard offices had their tenancies arranged annually in advance, 2% on annually in Arrears while the 16% is on quarterly in advance. 93% Warehouses were on annually in advance tenancy arrangements while the remaining 7% were on quarterly in advance tenancy arrangement. 74% of the Residential properties were on annually in advance tenancy arrangement while 26% were on quarterly in advance.

Table 3: Average Annual Total Returns on Real Estate Composite in Nigeria, from 2010 to 2019

Year	Average Total annual returns South West ₦	Average Total annual returns South East ₦	Average Total annual returns South South ₦	Average Total annual returns North West ₦	Average Total annual returns North Central ₦	Average Total annual returns North East ₦	Real Estate Composite average Total annual returns in Nigeria. ₦
2010	0.1968	0.1868	0.1623	0.1768	0.3268	0.1023	0.1920
2011	0.2267	0.1834	0.2088	0.1767	0.3774	0.0888	0.2103
2012	0.2313	0.2071	0.2088	0.1913	0.3881	0.0788	0.2176
2013	0.2021	0.1958	0.1973	0.1721	0.3758	0.0573	0.2001
2014	0.2250	0.1981	0.2235	0.1785	0.3785	0.0982	0.2170
2015	0.2210	0.2044	0.2321	0.1890	0.3850	0.1055	0.2228
2016	0.2650	0.2195	0.2485	0.1945	0.3885	0.1284	0.2407
2017	0.2710	0.2245	0.2575	0.1980	0.3945	0.1375	0.2490
2018	0.2810	0.2345	0.2675	0.1990	0.3645	0.1575	0.2590
2019	0.2710	0.2365	0.2575	0.1090	0.3745	0.1675	0.2990

Source: Field survey 2019

These are the average annual total returns on the prime property selected from the twelve cities in Nigeria. These returns were from the rental values and estimated appreciations in capital values of the 5Nos prime commercial and 5Nos prime residential property in each of the selected cities in Nigeria from 2010 to 2019.

Table 4: Average Annual Total Returns on other Investment Outlets in Nigeria, from 2010 to 2019.

Year	Government Bonds total annual returns ₦	Treasury Bills Total annual returns ₦	Stocks and Shares total annual returns ₦	Average prime lending rate ₦	Monetary Policy Rate (Mpr) ₦	Composite average total annual returns of other investments in Nigeria ₦
2010	0.1582	0.0236	0.0585	0.1886	0.0600	0.0978
2011	0.1265	0.0761	0.0576	0.1575	0.0683	0.0972
2012	0.1375	0.1470	0.0468	0.1710	0.1201	0.1245
2013	0.1495	0.1041	0.0467	0.1658	0.1203	0.1173
2014	0.1012	0.1151	0.0506	0.1685	0.1200	0.1110
2015	0.1224	0.1095	0.0485	0.1684	0.1300	0.1158
2016	0.0750	0.0485	0.0505	0.1669	0.1133	0.0908
2017	0.1878	0.1309	0.0510	0.1778	0.1400	0.1375
2018	0.1418	0.1092	0.0615	0.1645	0.1400	0.1234
2019	0.1161	0.1067	0.0655	0.1525	0.1350	0.1152

Source: Central Bank of Nigeria Money Market Indicators 2010 to 2019.

These are the average total annual returns on other investments in Nigeria as published Monthly by Data and statistics of the Central Bank of Nigeria.

Test of Hypothesis 1

Null Hypothesis (H_0): There is no significant relationship between the average total returns on property investments and the average total returns on other investment outlets in Nigeria

Alternative Hypothesis (H_1): There is a significant relationship between the average total returns on property investments and the average total returns on other investment outlets in Nigeria.

The paired t – test for comparing two related samples were used being that the observations in the two samples collected were matched pairs and their scores normally distributed..

Table 5: Comparing two Related Samples X1 and X_2

S/N	X_1	X_2	D	d^2
1	0.1920	0.0978	0.0942	0.0088
2	0.2103	0.0972	0.1131	0.0127
3	0.2176	0.1245	0.0931	0.0086
4	0.2001	0.1173	0.0828	0.0068
5	0.2170	0.1110	0.1060	0.0112
6	0.2228	0.1158	0.1070	0.0114
7	0.2407	0.0908	0.1499	0.0224
8	0.2490	0.1375	0.1115	0.0124
9	0.2590	0.1234	0.1356	0.0184
10	0.2990	0.1152	0.1838	0.0338
N=10	ΣX_1= 2.3075	ΣX_2= 1.1305	Σd= 1.177	Σd^2=0.1589

Source: Field survey data 2019.

The paired t – test for comparing two related samples were used being that the observations in the two samples collected were matched pairs ; the scores are normally distributed; the small samples do not require their variances of the two populations to be equal.

$$t = \frac{\sum d}{\sqrt{\frac{[N\sum d^2 - (\sum d)^2]}{N-1}}}$$

Where;

d: Difference between each matched sample
Σd : Sum of the difference between the matched samples.
d^2 : Sum of squares of the difference between each matched pairs.
N: Total number of matched pairs.
N-1: Degree of freedom.
: Calculate the test statistics for paired samples.

$$t = \frac{1.177}{\sqrt{\frac{[10 \times 0.1589 - (1.177)^2]}{10-1}}} = 5.5077$$

Determine the critical value, for t –test DF = N-1

That is the number of matched samples minus 1.
Thus, the degree of freedom is 10 - 1= 9.
Therefore, at 0.5 level of significance and 9 degree of freedom, the t- critical value is 2.26 due to the non directional alternative hypothesis.
: Decision Rule;
Reject H_0 if the calculated value of t is greater than the critical value of t.
Decision, since t- calculated (5.5077) is greater than the critical value of t (2.26), we reject the null hypothesis and uphold the alternative hypothesis. This shows that there is a significant relationship between the average total returns on property investments and the average total returns on other investment outlets in Nigeria.

Analysis

Having determined that there is a significant relationship between the average total returns on property investments and that of other investment outlets in Nigeria, there is need to establish the degree to which the results of the data conform to a regression line between the two variables. "The regression line is a line of best fit between the plotting of one variable and another on a two dimensional chart" [12].
The least square regression line of Y on X;
X: Average Total returns on real Estate Composite in Nigeria
Y: Average total returns on other investment outlets in Nigeria

Table 6: Average Total Returns Table

S/N	X	Y	XY	X^2	Y^2
1	0.1920	0.0978	0.0187	0.0369	**0.0096**
2	0.2103	0.0972	0.0204	0.0442	**0.0094**
3	0.2176	0.1245	0.0270	0.0473	**0.0155**
4	0.2001	0.1173	0.0234	0.0400	**0.0138**
5	0.2170	0.1110	0.0240	0.0471	**0.0123**
6	0.2228	0.1158	0.0258	0.0496	**0.0134**
7	0.2407	0.0908	0.0218	0.0579	**0.0082**
8	0.2490	0.1375	0.0342	0.0620	**0.0189**
9	0.2590	0.1234	0.0340	0.0671	**0.0152**
10	0.2990	0.1152	0.0344	0.0894	**0.0133**
N=10	**ΣX =2.3075**	**ΣY =1.1305**	**ΣXY =0.2637**	**ΣX^2= 0.5415**	**ΣY^2= 0.1296**

Source: Field survey data 2019.

The least square regression line of Y on X;

The regression line of Y on X is given by $Y= b_0 + b_1X$, by the normal equations for the least square line;

$$a_0 = \frac{(\sum Y)(\sum X^{2}) - (\sum X)(\sum XY)}{N\sum X^2 - (\sum X)^2} \qquad a_1 = \frac{N\sum XY - (\sum X)(\sum Y)}{N\sum X^2 - (\sum X)^2}$$

$$a_0 = \frac{(1.1305)(0.5415) - (2.3075)(0.2637)}{10x0.5415 - (2.3075)^2} \qquad a_1 = \frac{10x\,0.2637 - (2.3075)(1.1305)}{10x0.5415 - (2.3075)^2}$$

$$a_0 = \frac{0.0037}{0.0904} = 0.4009$$

$$a_1 = \frac{0.0284}{0.0904} = 0.3142 \text{ ; Thus; } Y= 0.4009 + 0.3142X$$

The least square regression line of X on Y;

The regression line of X on Y is given by $X= b_0 + b_1Y$, by the normal equations for the least square line;

$$b_0 = \frac{(\sum X)(\sum Y^2) - (\sum Y)(\sum XY)}{N\sum Y^2 - (\sum Y)^2} \qquad b_1 = \frac{N\sum XY - (\sum Y)(\sum X)}{N\sum Y^2 - (\sum Y)^2}$$

$$b_0 = \frac{(2.3075)(0.1296) - (1.1305)(0.2637)}{10x0.1296 - (1.1305)^2} \qquad b_1 = \frac{10x0.2637 - (1.1305)(2.3075)}{10x0.1296 - (1.1305)^2}$$

$$b_0 = \frac{0.001}{0.018} = 0.0556$$

$$b_1 = \frac{0.0284}{0.018} = 1.5778$$

Thus; $X = 0.0556 + 1.5778Y$

Real Returns

The above analysis assisted in the data for the inputs to arrive at the real return rates suitable for the valuation of real property investment in Nigeria. They are the equated yield, all risk yield and implied rental growth that could be employed in the valuation of property investment irrespective of the review clause [13] [14]. These were clearly stated hereunder;

Table 7: The Capitalization Rates on 3 Years Review, where e = 11-20% ; g= 10%

Equated yield %	All Risk Yield(k)%	Implied Rental Growth (g) %	Real Return(i) %
11	1.1	10	.9
12	2.2	10	1.8
13	3.3	10	2.7
14	4.4	10	3.6
15	5.5	10	4.6
16	6.6	10	5.5
17	7.6	10	6.4
18	8.7	10	7.3
19	9.8	10	8.2
20	10.9	10	9.1
Mean	5.73	10	5.01
Range	9.8	0	8.2

Source: Analysis from Survey 2019

The table illustrates the equated yield, the implied rental growth rates and the All Risk Yield (k) and real return derived from equated yields of between 11% and 20% and implied rental growth of 10% on 3 year review pattern [15]. But for equated yield at 18% where growth is 10%; k Can be calculate with the formula:

K= e – (SF x P) = 8.7 % while the real return (i) = $\frac{1 + e}{1+g} - 1 = 7.3\%$.

Note:

- That the real return 7.3% is same irrespective of the review arrangement.
- Implied rental growth is constant.
- The derivation of all risk yield K makes the valuation of property investments simple and very easy to calculate.

Table 8: The Capitalization Rates on 5 Years Review, where e = 11-20% ; g= 10%

Equated yield %	All Risk Yield(k)%	Implied Rental Growth (g) %	Real Return(i) %
11	1.2	10	.9
12	2.4	10	1.8
13	3.6	10	2.7
14	4.8	10	3.6
15	5.9	10	4.6
16	7.1	10	5.5
17	8.3	10	6.4
18	9.5	10	7.3
19	10.6	10	8.2
20	11.8	10	9.1
Mean	6.52	10	5.01
Range	10.6	0	8.2

Source: Analysis from Survey 2019

The table illustrates the equated yield, the implied rental growth rates and the All Risk Yield (k) and real return derived from equated yields of between 11% and 20% and implied rental growth of 10% on 5 year review pattern [16] [17] [18] [19]. But for equated yield at 18% where growth is 10%; k Can be calculate with the formula:

K= e – (SF x P) = 9.5%

while the real return

(i) = $\frac{1 + e}{1+g}$ - 1 = 7.3%.

Note:

- That the real return 7.3% is same irrespective of the review arrangement.
- Implied rental growth is constant.
- The derivation of all risk yield K makes the valuation of property investments simple and very easy to calculate.

RECOMMENDATIONS

The study recommends the following:

I. Having established a significant relationship between real property investment and other investment outlets in Nigeria, total returns as against income yield should always be the basis for comparing returns on property investment and other comparable forms of investment in Nigeria. Although Low income yield may imply expected increases in dividends, expected increases in capital gains or both, at times, there will be zero dividends which make it uncertain. For these reasons

income yield on value cannot form a good basis for sound investment decision.

II. That comparative analysis of the total returns for property investment valuation amongst others is a way out of the dearth of market data for valuation analysis. However, for effective application, Estate Surveyors and Valuers must update their records with published monetary policy rates, inflation rates, yields on treasury bills and government bonds.

III. To improve on the availability of reliable market data for effective comparative analysis, property should be seen as an investment, and in that vein, a central market data records to be updated periodically should be created and made accessible whilst secrecy in property transactions should be discouraged. The Continuous Professional Development (CPD) Programme of the Nigerian institution of Estate Surveyors and Valuers should be refocused to address this area of deficiency.

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