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A CRITICAL EXAMINATION OF INCOME APPROACH TO VALUATION MODELS

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Abstract

The grasp of valuation principles raises the consultant estate surveyors and valuers above the professional practice of agency and brokerage. So much of our national wealth is consolidated in estate assets that the property valuer has a duty to contribute his expertise to efficiency in the use of scarce resources. Valuers should estimate the worth of a property to an investor and not the price of a building. Valuation should be a basis for investment counseling rather than sideline projects from the main streams of investment world. This paper examined income approach to valuation models. These were examined by identified various valuation approaches (Traditional/Conventional and alternative valuation models (Contemporary valuation approaches). The purposeful method of data collection was adopted and data were sourced from Estate surveyors and valuers. Data was analyzed through the essential parameters involved in both conventional and contemporary approaches. Findings reveal that, contemporary models, apart from producing results which are rational, defensible, and can be analyzed in line with other investment media, the use of conventional models tends to over-value the property particularly for investment properties. Conclusion: valuation model is absolutely accurate, but continued advances in valuation principles are answer to client's increased demand for more scientific input in the valuation process and helping clients better understand how real estate value is estimated under different scenarios.

KEYWORDS: conventional & contemporary valuation, income producing property, mortgage, valuation.

1.0 INTRODUCTION

The decision to engage in real property investment is among the most difficult and critical an investor has to make. This is so not only because of the large capital outlay and because of long gestation period but also once the decision is made, any error which may result if discovered, cannot easily be remedied. Since capital is limited and can be invested elsewhere, the best option is the allocation of it between alternative uses to obtain an efficient use consistent with the wealth maximization objective of the investor (Bello, 2003). Real property market, which can otherwise be called "REAL ESTATE MARKET", is defined as any MEDIUM where "bundle or cluster of rights" is being exchanged. It could also be a system of transaction between landowners, land users and estate agents. The property market is sum total of all the smaller and larger

markets operating in different types of interests in land. This then means that separate markets exist for every type of property that involved different groups of buyers and sellers. At this juncture it is pertinent to mention that the article, which is being sold and bought in the property market, is the INTEREST in land (or land properties) such as freehold and leasehold. In other words, property market is a medium through which ownership rights and or privileges are transferred from one person to another. However, the INTEREST in land can be transferred in real property investment for one or more of the following reasons or purposes such as for insurance, outright sale, mortgage, rental value, capital value, determining a property utilization programme (redevelopment of properties), taxation of properties, compensation for loss of a property.

interest (Land Use Act no 6 of 1978), internal performance analysis of a company, merger and takeover, rating assessment, balance-sheet etc.

The investment world is a much-diversified world. While many investors are shopping for surplus funds to prosecute pressing investment matters, others that have it want to be rest assured that those requiring such surplus funds are going to pay back or amortize such credit facilities. This thus gives rise to the need for collateral securities to guarantee loan advancement.

Overtime, various items are being used to guarantee loan advancement but the current dispensation, which has been the status quo in the millennium, has favoured the use of landed properties as collateral for loan advancement. To assess the value of such landed properties, the services of Estate Surveyors and Valuers cannot be dispensed with. The valuer uses his professional acumen, which has never been in doubt to value such properties for mortgage purpose, and even goes further to advice on the maximum amount that can be granted as loan. In doing this, he becomes an arbiter to both the mortgagee and the mortgagor.

1.2 Aim

This paper examined the conventional and contemporary approach of investment method of valuing income-producing properties for mortgage purpose.

1.3 Objectives

1. To identify the various {traditional/conventional} valuation approach of valuing income-generating properties

via their purpose and basis of valuation.

2. To examine the reliability or otherwise of the valuation method(s) mentioned in (1) above by identifying their inherent problems.
3. To consider the use of various alternative valuation models (contemporary valuation approach) in property investment analysis.
4. To determine the most logical and acceptable valuation model between conventional and contemporary approach.

2.0 LITERATURE REVIEW

Literature on valuation methods emphasized that, more than ever before, valuation discipline is now witnessing some surgical waves of criticisms and attracting to itself a considerable amount of doubts among the non-insouciant practicing Estate Surveyors. Those criticisms and doubts center around the efficacy of the widely used conventional techniques of valuation to actually or simulate the present economic variables in a more realistic and logical manner. Precisely put, it is in the area of property investment valuation that a surveyor has to demonstrate a more thoughtful and systematic approach towards valuation practice than hitherto. Eso (1987) was quoted by (Sule, 2004) to have contributed to the workshop on "Valuation Approaches under the Structural Adjustment Programme" raised some fundamental issues when he said, inter-alia: "... factors which normally guide the valuer in either his valuation or viability appraisals such as interest rates, opportunity cost of money, adjusted (or real) value of money, inflation rate, return on

investments, comparatively of investments and cost of building projects have now escaped the understanding of the hitherto conservative economists" These drastic changes of our times should compel us to sit down and ponder whether we have adequate tools to swim within the new economic currents. We should ask ourselves: What now is the opportunity cost of money? What is the yield one can hope to obtain on any property investment when bank rates on loans and advances are now rumored to be as high as 18% minimum? With the high returns from savings and deposits in the form of high interest rate coupled with reduced income on property investment, there is no doubt that the investment method of valuation has been called into question. Under the comparative concept of investment, how can we as consultants continue to advise our clients to accept very low yields, as low as 6% or 7% on property investments, when the investor can as well place his capital in a fixed deposit account and earn a much higher rate? Can we truthfully argue that appreciation of invested capital in property over the years will compensate for these low returns? The paradox, then, is that if you use a high interest rate to discount a low income, how you can convince a property owner to part with his property by accepting a sale figure, which will be roughly 5 or 6 times the annual rent. The present mopping up of liquidity in the system further assures that the properties that are put in the market do not get buyers, because there are now very few buyers with sufficient money to give effective demand. If, therefore, we made valuation through the old system and cannot get buyers, should we not think seriously of a change? It is now about time that we addressed our minds to amendments in our valuation concepts and understanding".

The above... into clear... the non-reconciliation of our valuation methods with the problems of inflation or growth. The intuitive adjustment of all-risks yield in conventional method of valuation is too tempting and does not reflect in explicit terms, the capital or rental growth rate.

However, Adeyemi (1998) observed that, it is a common technique in Nigerian property market today to use the cost method of valuation in valuing income-producing property especially for mortgage purposes. Moreover, hardly can you see valuers presently using investment method of valuation and even if the latter method is being adopted, it will be traditional technique of investment approach to valuation. Why should this be so especially with the present economic situation that is prevailing in Nigeria today, which has been subjected to hyper-inflationary factor? One of the considerations in investing in property development is that it is an inflationary hedge for investors as well as capital value appreciation in the long run. It is inflation proof because every year a property owner or property manager revises upwardly the rent passing by the property to take cognizance of the existing purchasing power in the economy. Adeyemi (ibid) opined that, it is improper to be valuing income producing property with cost method of valuation; and if care is not taken, 50% of the problems now facing lending institutions may be attributed or apportioned to poor and un-authentic valuation reports based on cost technique. He further explained that, it is true that cost may indicate what price should be paid for an article, but it is determine by forces of supply and demand. Even in property market, it also fails. It fails because an area may not be ripe for the kind of development erected or put-up and if, it is not producing streams of income for the

developer it may not generate expected income. So due consideration must be given to economic base of an area before commencing property development and this economic base is determined by the interaction of demand and supply factors not cost of development. Adeyemi (ibid), reviewed the circumstances that may warrant the utilization of cost method of valuation in practice as against the traditional investment valuation approach (conventional approach) without making case for the utilization of contemporary investment valuation model which is a sophisticated development and improvement of conventional investment method of valuation.

Baum and Mackmin (1981) posited that the conventional capitalization approach is perfectly acceptable under normal conditions where property is let on normal terms with regular rent reviews, and where there is evidence of capitalization rates. In such cases it is most logical to use an equivalent yield approach whether it will be in the format of the terms and reversion, or the layer method. In all cases, but particularly, where income pattern is not normal, they believed that there is a strong case for using a Discounted Cash Flow (DCF) approach. This is the focal point of this paper.

3.0 METHODOLOGY

The purposeful method of data collection was adopted. Data were sourced from registered estate surveyors and valuers and analyses of the data were based on the essential parameters involved in both conventional and contemporary approaches. Apart from this source of data collection, this research also entails the use of textbooks, Magazines, Journals and reviews of

literature to complements what was collected from primary source (estate surveyors and valuers).

4.0 DATA ANALYSIS AND RESULTS.

The conventional approaches assume a continuous level of income flow at reversionary once the full rental value is achieved. It also adapt one variable yield to adjust for all the similarities and dissimilarities identified through the analysis of comparable sales. The overall rate or all risks capitalization rate is used to calculate the present worth. This traditional method includes;

- (i) Term and Reversionary Technique
- (ii) Equivalent Yields (vertical approach)
- (iii) Equivalent Yields (horizontal or layer method)

In conventional technique, all forms of valuations traditionally rely upon direct comparison of the overall market yield from similar properties.

CASE STUDY

A residential property of 6 flats of 3 bedroom apartment in a prime location at sw9/684 Akinyemi way, Ago-Taylor, off ring-road, Ibadan is to be valued for mortgage purpose. The property was let at a rent of N42, 000.00 per annum/ flat and N12, 000 p.a. for a room apartment. The estimated net income is N264, 000 .00 p.a. and the lease has 3 years unexpired term. Similar 4 flats of 3 bedrooms each presently producing N240, 000.00 p.a. (net) in the same vicinity recently disposed for N4, 000,000. Analysis from comparables shows that the FRV of the subject property is N375, 000.00 p.a.

*Source:- Segun Ogunseye & Co.,
Estate surveyors & valuers. NO 82,
Fajuyi road adamasingba, Ibadan.*

VALUATION

Determination of market capitalization rate from comparable (K) is equal to,

$$\frac{\text{Income (Net rent)}}{\text{Capital value}} \times \frac{100}{1} = 6\%$$

$$\frac{240,000}{4,000,000} \times \frac{100}{1} = 6\%$$

Determination of the open market value of the subject via conventional approaches.

Term and Reversionary approach

(Graphical illustration of Term and Reversionary Technique)

<u>Term</u>	N	N
Net income	264,000.00	
Yp 3yrs @ 5%	2.7232	718,925
<u>Reversion</u>		
FRV	375,000.00	
YP perp. @ 6% def'd 3yrs	13.9937	<u>5,247,638</u>
		<u>N 5,966,563</u>

Capital value (say) N6million.

Note that 5% is used to value the term in order to reflect the degree of security of income when compared with a full rental value. The term is much more secured than the full rental value and as a result, lower rate percent is used to capitalize the term while higher rate is used to capitalize the reversion. In addition, the same rate is used to determine the present's worth of the capital value of the reversion.

Equivalent yields (vertical approach)

<u>Term</u>	N	
income	264,000	
YP 3yrs@6%	2.6730	705,672
<u>Reversion</u>		
FRV	375,000	
YP in Def'd.3yrs	13.9937	
		<u>5,247,638</u>
C.V		<u>N5,953,310</u>

Capital value (say) N6million.

Advancement on the traditional term and reversion valuation is the equivalent yield approach, where the valuer does not adjust the yield used on the term. The same yield is used to value reversionary interest.

Equivalent Yield (horizontal or layer method)

This layer method follows the same principle with vertical method except that cash flow is spitted into two

horizontally. The uplift at reversion usually refer to as "top slice" represents an increase above today's rent and therefore the rent passing today can be viewed as a continuing income stream perpetuating from today, while the

slice can be viewed as a perpetual in come from end of the term.

Theoretically, the splitting process is logical because, it allows the valuers to treat the top slice as the riskier part of the investment.

Equivalent Yield (Layer method/Hard core)

<u>Term</u>	N	
Layer income	264,000	
YP in perp @ 6%	16.667	4,400,009
<u>Reversion</u>		
Top slice	110,000	
YP in perp @ 6%		
Def'd 3yrs	13.9937	
		1,553,301
		<u>N5,953,310</u>
C.V		
<u>Capital value (say) N6million</u>		

CRITICISM OF CONVENTIONAL METHOD

It has been established that with respect to freehold reversionary interest, all 3 conventional models are prone to errors of logic and arithmetic by capitalizing fixed term income at a rate which implied rental growth. The assumption behind this is the "ALL RISK YIELD"

The reverse yield gap has rendered the postulation of hiding growth assumptions implicit with a yield invalid. In case of leasehold valuation negative comment has focus on the problem of sinking fund assumption or allowance as well as the implicit growth assumption inherent in use of all risk remunerative yield and the illogical comparison with freehold. The model has not only misrepresented the property market but also and perhaps more importantly isolate property investment from other investment.

In view of these arguments, various alternative valuation models have been formulated since early 70's; and they are,

Growth Explicit Discount cash flow formulated by Greaves in (1972).

Real value approach formulated by Wood (1973)

Rational valuation model developed by Sykes (1981) a hybrid version of equated yield approach.

CONTEMPORARY APPROACH TO FREEHOLD VALUATION

This contemporary approach is based on the same fundamental principles upon which the conventional approach is based. Instead of using one variable (i.e yield) to adopt for all differences between comparables and subject properties as in conventional technique, rental growth is isolated as in additional variable to the model. Whereas rental growth is implied in the conventional model. Other variables which contemporary approach utilized and explained are equivalent yield (e), inflation, risk-free (rf) and reviewing period (t)

This contemporary approach include

- i (DCF) Discounted cash flow model
- ii Rational model
- iii Real value model

They are all based on the same fundamental principles of expressing the above variables explicitly.

DISCOUNTED CASH FLOW MODELS

The discounted cash flow technique is a tool that has long been used in business finance and adapted for use in the appraisal of property investment. One of the advantages of the DCF technique is the discipline of quantifying the anticipated rate of rental growth, which may cause the valuer to think more deeply about the quantities of the investment. The importance of achieving rental growth may be judged from the knowledge that inflation is endemic and continually on the increase. The variations of the technique are examined below;

THE EQUATED YIELD ANALYSIS

The Equated Yield Analysis (EYA), which was first suggested by Marshall (1996), is a DCF model that builds into the calculation the expected increase in rent in an explicit manner as distinct from all risks yield or growth implicit capitalization rate used in conventional appraisals. The equated yield of a property investment is the discount rate which when applied to the projected income allowing for growth produces a net present value equal to zero. A variety of formats for the appraisal are possible, but the increasing use of computer based spreadsheets (e.g. LOTUS 123) encourages a tabular form.

PARAMETERS USED CONTEMPORARY VALUATION APPROACH

The growth explicit discounted cash flow models have the following variables;

- A The equated yield (e)
- B The growth rate in rental (g)
- C The review period in years (t)
- D The inflation risk-free yield (i)

NOTE

- (i) The equated yield (e) is found by adding the market yield of +2% to the redemption yield on conventional government securities to account for differences between property and government investment. It is pertinent to state that treasury bills in Nigeria today stand at a return of 16% for a 90-day period.
- (ii) Growth rate (g) is obtained from available evidence in the analysis of comparables. The implied rental growth rate per annum is equal to the growth rate per annum.
- (iii) Rent review pattern in a comparable is equal to (t) years and
- (iv) All risk yield of comparable is equal (k%). Then the equated yield can be obtained from any of the following formulas.

(1) $K = e - (ASF @ e) [(1+g)^t - 1]$ ----- (i)

(2) $(e-k) \frac{[(1+e)^t - 1]}{e} + 1 = (1+g)^t$ ----- (ii)

(3) The 3YP formula;
 $(1+g)^t = \frac{YP \text{ perp } @ k\% - YP \text{ term } @ e\%}{YP \text{ perp } @ k\% - PV \text{ term } @ e\%}$ ----- (iii)

* The application of any of the formula (i) ----- (iii) gives the same result. Moreover, inflation risk free yield (i) can be obtained with the formula.

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$$i = \frac{[1+e]-1}{1+g} \text{---(iv)}$$

DETRMINATION OF THE VARIABLES IN DCF MODEL IN THE CASE STUDY

Determination of equated yield e

Treasury bill in Nigeria is 16% and an addition of 2% is allowed for because of the reverse yield gap scenario between property and gilt-edge securities which is assumed to be more secured making it e = 18%

APPLICATION OF DCF CONCENTEMPORARY MODEL TO CASE STUDY

CALCULATION OF IMPLIED RENTAL GROWTH (g) FROM COMPARABLE ANALYSIS

To arrive at the annual rental growth of the property (g) consider equation (iii)

$$(1+g)^1 = \frac{YP \text{ perp. @ } K - YP \text{ term @ } e}{YP \text{ perp. @ } K \times PV \text{ term @ } e}$$

$$(1+g)^3 = \frac{YP \text{ perp. @ } 6\% - YP \text{ 3yrs @ } 18\%}{YP \text{ perp. @ } 6\% - PV \text{ 3yrs @ } 18\%}$$

$$(1+g)^3 = \frac{16.6667 - 2.1743}{16.6667 - 0.6086}$$

$$(1+g)^3 = 1.4288$$

$$(1+g) = \sqrt[3]{1.4288}$$

$$(1+g) = 1.1263$$

$$g = 1.1263 - 1$$

$$g = 0.1263$$

Annual rental growth (g) is 12.6% p.a.

DISCOUNTED CASH-FLOW MODEL VALUATION OF THE CASE STUDY

YEAR	RENT PER ANNUM (N)	GROWTH RATE (g) 12.6%	PROJECTED RENT (N)	YP 3 yrs @18%	PV @18%	PRESENT VALUE (N)
1-3	264,000	1.0000	264,000	2.1743	1.0000	574,015
4-6	264,000	1.4276	376,886	2.1743	0.6086	498,725
7-9	264,000	2.0381	538,058	2.1743	0.3704	433,331
10 perp.	264,000	2.9097	768,161	*16.6667	0.2255	2,887,011
						4,393,082

The capital value (say) = N4, 400,000.00

1. only a rack rented investment yield capitalization rate at which the property would be valued in the market if it were leased on regular rent reviews;

It allows growth of the current rental value from the date of the valuation in line with **NOTES:-**

1. The annual rental growth is at 12.6% realizable every 3years- the review periods.

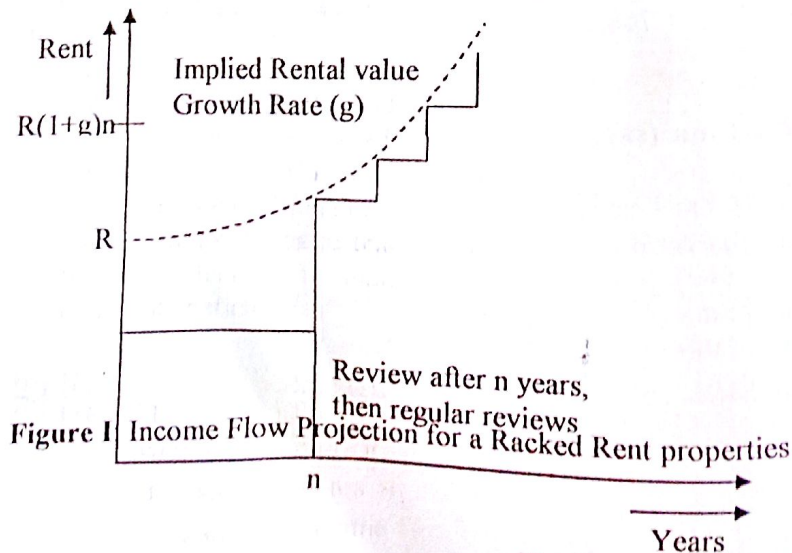
2. The equated yield is taken at 18% i.e. 16% the gilt-edge (treasury bills) plus 2% to allow for the essential differences between real property and other investments.
3. It is an acceptable practice to have a holding period for the cashflow, which the income is valued into perpetuity.
4. The 6% used in the valuation represents the initial yield (K) which means $(100/6) = 16.6667^*$.

THE RATIONAL VALUATION MODEL

This model, based on the earlier work of Greaves (1972) and further developed by Sykes (1981) is an attempt to provide a more useful and consistent valuation model, which retains the basic features of the equivalent yield model, but corrects its deficiencies.

BASIC FEATURES OF THE RATIONAL VALUATION MODEL

2. It values the current (fixed) income stream separately from the reversionary income flow;
3. It takes account of the number of years to the next review(s) irrespective of whether the



- property is currently rented or not,
4. It was the long-term rate implied by investment yield rate

The variables that need to be determined before proceeding with the valuation are:

- (a) The risk-adjusted cost of capital convention is taken above the return on long-term edge stock;
- (b) The annual rate of growth implied by the acceptance of the initial

The diagram below illustrates the cash flow projection assumed by the model for a reversionary investment. It shows the current rental value or income stream, R, and the next rent review. It is assumed that the rental income remains fixed until the first review at which time the rent is increased not to R but to $R(1+g)$ where g is the implied rental growth rate. As the rental income increases, the projected cash flow is capitalized at the implied yield rate, Y, derived from the risk-adjusted opportunity cost of capital.

A term and Reversion freehold valuation by the Rational approach therefore takes the Rational approach therefore takes the following form as depicted further in the diagram below:

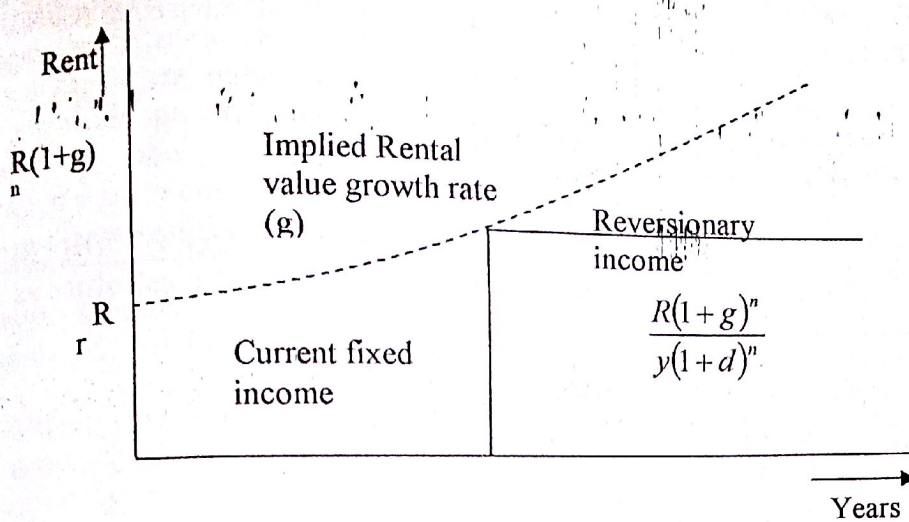


Figure II: Income Flow Projection for a Term Reversionary property

In the diagram, it is readily observed that;

$$CV = [r/d - r/d(1+d)^n] + R(1+g)^n / y(1+d)^n \dots \dots \dots V$$

Where CV = Capital value

r = current rental value

R = estimated current rental value

Y = rack rented capitalization rate

n = number of years to next review

d = risk adjusted opportunity cost of capital.

Note also that the implied growth rate g to be used in the valuation will be calculated from:

$$g = \left[\frac{(d-y)}{d} \left[(1+d)^t - 1 \right] + 1 \right]^{1/t} - 1 \dots \dots \dots 6$$

Where g, d, y are as previously defined and t is the number of years in rent review pattern.

APPLICABILITY OF RATIONAL MODEL VALUATION TO THE ABOVE CASE STUDY

Under the rational model, a term and reversion freehold valuation is of the form:

$$CV = \left[\frac{r}{e} - \frac{r}{e(1+e)^t} \right] + \frac{R(1+g)^t}{k(1+e)^t}$$

Considering the data of the case study above

$$CV = \left[\frac{264,000}{0.18} - \frac{264,000}{0.18(1.18)^3} \right] + \frac{264,000(1.1263)^3}{0.06(1.18)^3}$$

$$CV = [1,466,667 - 1,016,474] + 3,826,211$$

$$CV = N 4,276,404.00$$

THE REAL VALUE MODEL

An alternative to equated yield or rational models is the 'Real value' model propounded by Wood (1972) which has been amended and reconciled with the equated yield approach to produce a 'Real

value/equated yield' hybrid. (crossby, 1983). Wood's real value model was first published in 1973. The model is founded on the principle that an income can be reviewed at each rent payment date to a new rental, which matches inflation over the intervening

period. By so doing, investors has an inflation proof investment with rental growth in monetary terms but a static real value profile into perpetuity.

The rate of return required on such an income is the interest rate required for risk free yield" i

giving up the capital taking account all risks attached to investment but excluding inflation. Wood (ibid), referred to this real return as

DERIVATION OF IRFY FROM OTHER CONTEMPORARY VARIABLES

From equated yield (e) and implied rental growth (g), IRFY (i) is calculated as follows using the formular;

$$IRFY (i) = \frac{[1+e]}{1+g} - 1$$

$$(i) = \frac{[1+0.18]}{1+0.126} - 1$$

$$(i) = \frac{[1.18]}{1.126} - 1$$

$$i = [1.04796] - 1$$

$$i = 0.4796 \text{ or } 4.796\%$$

APPLICATION OF REAL VALUE APPROACH TO THE CASE STUDY

For a fully let freehold, the formular is;

$$[YP \text{ term } @ e \times YP \text{ perp. } @ i]$$

$$YP \text{ perp. } @ i$$

This is then used to capitalize income.

REAL VALUE MODEL

Estimated rental value

YP 3yrs @ 18% x YP perp. @ 4.796%

YP 3yrs @ 4.796%

$$2.1743 \times \frac{20.8518}{2.7337}$$

N264,000.00 p.a.

Capital value

$$\frac{16.5849}{N 4,378,414}$$

INTERPRETATION OF RESULTS

The result or value indicated by the conventional capitalization methods is greater than that of the contemporary approaches. This does not imply an error in either method. The implication

of course would be that an investor might not purchase a property for 4.4 million at 16.62% return when there is an alternative investment that can be purchased at N 4.4 million that will produce a return of 18%.

DETERMINATION OF MORTGAGE VALUE

If the lending institution had been advised to lend 2/3 of the estimated capital value will look like this,

$$(a) \frac{2}{3} \text{ of } N6,000,000.00 = N4,000,000.00$$

5.0
Some result clients manipu their cli

(b) $\frac{2}{3}$ of N4,400,00.00 = N 2,900,000.00

The question now is that if N 4 million was granted as loan to the mortgagor, he failed to repay the loan (both capital and interest due) at the stipulated period, and the mortgagee is now facing the difficulty of who to buy the capital as well as the interest that due?

The next solution is to take possession of the premises and

Then;

$$N264,000.00 \geq 25/L$$

$$N264,000.00 \times 100 \geq 25L$$

$$N26,400,000.00 \geq 25L$$

$$\frac{26,400,000}{25} \geq L$$

25

$$N 1,056,000 \geq L$$

The amount of Loan (mortgage) grantable is N 1,056,000.00 i.e. (minimum loan amount). Assuming this loan is to be repaid at 25% interest rate for 30years.

The annuity table is the reciprocal of years purchase, simple rate, so is the mortgage table. Thus;

Amount to be borrowed

N 1,056,000.00

Annuity of N1 for 30years at 25%

(From the table)

Yearly installments

0.2503

N 264,327.00

Therefore, if the minimum loan amount grantable is N 1,056,000.00 at 25% for 30years based on current rental value of N 264,000.00 p.a. then if the lending institution is willing to grant more than the minimum loan amount, it will be advisable to grant N 2,900,000.00 instead of N 4,000,000.00 produced by the conventional method. This shows that the contemporary approach is logical, correct, rational and analytical.

5.0

CONCLUSIONS

Some clients influence the valuation result of their valuers. Cost minded clients influence weak valuers to manipulate valuation estimate to suit their client's purpose. Valuer should be

collecting the annual rent to offset the debt.

Assuming the interest on loan is 25%, known that the current rental value of the premises is N264,000.00 p.a. and the principle is that, the income should be able to pay both interest and capital i.e. income must be greater or equal to interest on loan.

the one dictating the result of the valuation not the client influencing the valuation estimates. This study has revealed the inadequacy of the conventional valuation methods being used by the Nigerian real estate practitioners and hence confirmed the need for Nigeria valuers to employ technique(s) that will enhance the quality of valuation services rendered to their clients. The study further revealed that, in spite of the obvious need for the contemporary valuation models, there is a low level of usage of these models by the Nigerian real estate practitioners as confirmed by many studies. Bello and Bello (2007) *opined that the inability of the majority of these practitioners to understand the theoretical basis underlying these valuation techniques could be linked to*

the nature and content of their undergraduate curricula. Presently, except at graduate levels, most of the higher institutions offering courses in estate management in Nigeria have not incorporated the teaching of these models into the curricula and academic programme. This need for Estate Surveyors and Valuers to provide qualitative service to their clients calls for changes in the curriculum and academic programme of the polytechnics, colleges of technology, and universities offering courses in estate management as well

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$$(b) \frac{2}{3} \text{ of } N4,400,000.00 = N 2,900,000.00$$

The question now is that if N 4 million was granted as loan to the mortgagor, he failed to repay the loan (both capital and interest due) at the stipulated period, and the mortgagee is now facing the difficulty of who to buy the capital as well as the interest that due?

The next solution is to take possession of the premises and

Then;

$$N264,000.00 \geq 25/L$$

$$N264,000.00 \times 100 \geq 25L$$

$$N26,400,000.00 \geq 25L$$

$$\frac{26,400,000}{25} \geq L$$

25

$$N 1,056,000 \geq L$$

The amount of Loan (mortgage) grantable is **N 1,056,000.00** i.e. (minimum loan amount). Assuming this loan is to be repaid at 25% interest rate for 30years.

The annuity table is the reciprocal of years purchase, simple rate, so is the mortgage table. Thus;

Amount to be borrowed

N 1,056,000.00

Annuity of N1 for 30years at 25%

(From the table)

0.2503

Yearly installments

N 264,327.00

Therefore, if the minimum loan amount grantable is N 1,056,000.00 at 25% for 30years based on current rental value of N 264,000.00 p.a. then if the lending institution is willing to grant more than the minimum loan amount, it will be advisable to grant N 2,900,000.00 instead of N 4,000,000.00 produced by the conventional method. This shows that the contemporary approach is logical, correct, rational and analytical.

the one dictating the result of the valuation not the client influencing the valuation estimates. This study has revealed the inadequacy of the conventional valuation methods being used by the Nigerian real estate practitioners and hence confirmed the need for Nigeria valuers to employ technique(s) that will enhance the quality of valuation services rendered to their clients. The study further revealed that, in spite of the obvious need for the contemporary valuation models, there is a low level of usage of these models by the Nigerian real estate practitioners as confirmed by many studies. Bello and Bello (2007) *opined that the inability of the majority of these practitioners to understand the theoretical basis underlying these valuation techniques could be linked to*

5.0 CONCLUSIONS

Some clients influence the valuation result of their valuers. Cost minded clients influence weak valuers to manipulate valuation estimate to suit their client's purpose. Valuer should be

the nature and content of their undergraduate curricula. Presently, except at graduate levels, most of the higher institutions offering courses in estate management in Nigeria have not incorporated the teaching of these models into the curricula and academic programme. This need for Estate Surveyors and Valuers to provide qualitative service to their clients calls for changes in the curriculum and academic programme of the polytechnics, colleges of technology, and universities offering courses in estate management as well

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