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A Critical Evaluation of Conventional Methods of Appraisal and its Materiality on the Growth Explicit Models of Valuation

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Abstract: The various ways of appraisal have been under scrutiny observation in recent times due to the fact that there have been unpredicted circumstances evolving in the country's economy and the need to accommodate them is quite necessary. The conventional method of appraisal is gradually been overtaken by the growth explicit model. In view of this, this study evaluates the conventional method, vis-à-vis its relevancy on the growth explicit model. The study concluded that although both conventional and contemporary approaches use market comparisons in arriving at valuation estimates but variation in market situation and the confinement of information does not reduce the old model as much as it affects the conventional model. The study further made it known that contemporary valuations are good leverage to sort out the ambiguity and changes that are peculiar to modern leases unlike the conventional valuations they are not totally reliant on property market evidence and have access to other inputs from the capital market. In conclusion, contemporary valuations are able to embrace and perform in all circumstances surrounding market condition with the absence of adequate adapt and operate in all market conditions in the absence of adequate comparable evidence.

Keywords: Conventional Method, Contemporary Method, Valuation, Property Market

1.0   Introduction

Valuation can be referred to as a way of establishing the opinion of value for an interest in landed property/estate (Ogunba, 2013). According to RICS (2006), it was also made known that valuation can be ascribed to as an expert valuer's opinion of capital or available rental price or value of a property. With these definitions, the questions that readily come to mind are the assets that can be subjected to valuation and these are personal property, intangible assets and real property. It is germane to note that valuation is to determine the opinion of value of the interest the owners have on these classified properties also it is a function of place, date, and purpose. In this regard, market valuation is required to estimate market price because of the uniqueness of property which is traded differently from financial assets that are actively transacted and whose prices can be observed in capital markets.

Majority mostly use value and price interchangeably. Value and price are not necessarily synonymous. According to IVSC, (2007), price is defined as the amount asked, offered or paid for goods or services. When applied to property, a price ascribed to a specific property may not represent the true picture of the property's market value. This is as a result of the fact that property market is not a perfect market. In a perfect market, there is full knowledge of the market and the price paid. Property market unlike the others do not represent a perfect market. Property market is imperfect due to the fact that there is freedom of entry, the buyers and sellers would at the end determine the value of properties.

It is also worthy to note that the purpose of valuation determines the basis, while the basis determine the method of valuation to be used. Whereas, valuation is the value of interest of a party in a property. According to Udechukwu, (2006), he made it known that there are two different types of interest in property and these are;

a) Free hold interest: under which there are three investment types which are fee simple absolute interest, Fee tail, and Life estate. Whilst the

b) Lease hold interest: there are two investment types which are Tenancy Lease – 1 to 3yrs, and Hyper Long Lease – 99yrs. When any leasehold interest is for a period of 30 years and above, it is equally referred to as a freehold.

Meanwhile, valuation of freehold interest below full rental value conditions arises when:

i. Properties are let for a long term and rent will increase during the lease period;

ii. If the property is let at a premium;

iii. A sitting tenant given some rent concession.

Thus, in calculation interpretation of valuation of free hold interest below Full Rental Value is: **Cv = NI below FRV x YP FRV x YP perpetuity (YP perp)** deferred for number of lease period. That is, Cv means Capital Value, NI means Net Income, YP means Yield Period, FRV means Full Rental Value, PV means Present Value, (Ogunba, 2016).

Furthermore, freehold property investments were fairly homogenous and could be directly compared with gilt- edged fixed income securities to extract yields which were adjusted and applied in property valuation with defensible and logical results. Property was perceived as a long-term secure investment comparable to bonds but with higher inherent risks and

therefore produced higher yields with a gap of about 2%. The spread allowed for tenant default, illiquidity and other risks of property as an investment class.

The long leases granted under freehold interests guaranteed a secure bond like contractual income which in spite of their length and absence of frequent rent reviews maintained their value because there was little inflation. Yields represented the actual return on property investment which could be compared directly with other investment yields such as that of bonds, based on investors' perception of risk. Baum and Crosby (2008, pp. 95-102) conclude that, before the 1960's, there are similarities between the conventional valuation of reversionary and fully freeholds with DCF valuation. This due to the fact that there is the availability of fixed income bond which is just like the nature of the freehold investment that did not possess a 'firm growth element and could go up as well as down'. In effect the valuations were technically growth explicit.

2.0   Critic   of   the   Conventional Valuation

According to Baum & Crosby, (2008), he opined that the traditional ways or methods depends on the extent of similarity between evidence from market and the subject property as a way to determine the reliability of market valuation. To determine the efficacy of any valuation approach, it is to access and use the appropriate market evidence in driving the market value.

Lots of criticisms have been cited about the conventional investment methods of valuation worldwide and this include errors of logic and arithmetic, and the implicit nature of yield used (Bowcock 1983, Crosby, 1991; Baum and Macgregor 1992, Ajayi 1994).

In Nigeria, moreover, the investment method of valuation has a peculiar problem. The imported valuation table widely used assumes annual rent paid in arrears whereas rent is usually paid in two or three years in advance. Igboko, (1994) and Leromo, (1992) shared the same opinion. They observed the issue in the imported valuation tables was the inconsistency between valuation figure arrived at using theories derived from UK literature and the actual property values presented by local market evidence, consequently, valuers resulted into the manipulation of capitalization coefficient to adjust theoretically computed property value to match the actual market prices. This is the cause of the disillusionment expressed by the Nigeria valuers over the inadequacy of property investment yields. Idudu (1991) argued that, there is no trained valuer that has a grounded training in macroeconomics can use a yield as low as 3% or 5% to appraise property, when there is the possibility of obtaining 15% on fixed deposits. Meanwhile, Ajayi (1997, 2006) and Ogunba et al (2005) were of the opinion that having property yield lesser than the yield on fixed deposits has no deficit, this which they ascribed to the emergency of reverse yield gap in the country's property market.

The interest created with the introduction of Land Use Act Decree (now act) of no.6 of 1978 is debatable. As a result of this, people no longer own land allodia, it became incapable of ownership and what

can only be owned is the right of occupancy.

Many authors supported the motion that the amount of real estate allocated as a result of right of occupancy is far lesser than the freehold interest. It is an estate for term certain. However, Bello, (2006) made it known that the usual is for the Estate Surveyors and Valuers to overlook the certainty attribute of the right of occupancy and as an estate in fee simple in their valuation exercise. Also, the professional are not uniting the responsibility to pay ground rent and premium (an obligation of a Right of Occupancy holder that further confirms it as an estate less than freehold) into their valuation inputs.

Furthermore, Conventional approaches are growth implicit valuations that are based on the concept of the all-risks yield. The yield is encapsulated in a single estimate containing all the qualities of the investment cash flow including growth potential and risk.

The Conventional method or traditional method to value freehold interest below Full Rental Value (FRV) are basically four method which are:
1. Term and Reversion
2. Graphical Representation
3. Hard core model
4. Equivalent yield method

2.1 Term and Reversion
Ifedina, (1992), explained that Term and Reversion are method are considered as methods of capitalization. In this model, the present income is captialisation for the period for it to be earned, while the stepped income will also be capitalized in perpetuity but adjusted for the period that must discontinue before it is earned (reversion).

Term and reversion assumption are as follows:
i. Period of fix rent is called term period which the rent reverts to full rental value, sequel to term is known as reversion.
ii. Yield for term lower than that for comparable property recently let at full rental value because to lower risk, that is increase security attach to paying a lower rent.
iii. Rent adopted for the reversion is the current estimate of full rental value.
iv. Capital value of reversion is obtained by capitalizing today's full rental value as at the date of reversion.
v. The conventional method assumes that a lower yield for term is used comparable to property recently let all full rental value because of lower risk. It is also assumed that rent adopted for reversion is the current FRV.

Criticisms on Term and Reversion
The criticisms on term and reversion are as follows:
a. Term capitalization rate is lower than reversion because tenant find it easier to pay term rent, this condition might not necessarily or always be the case because property of high quality might not experience this problem especially if it is a big company like shell.
b. Term yield should be reduced by proportion of rent payable rather than the rule of Tom of K- 1
c. Mathematical error result when 2 interest rates are used for the same period. This was propounded by Bow cook K-1 used to capitalize the term
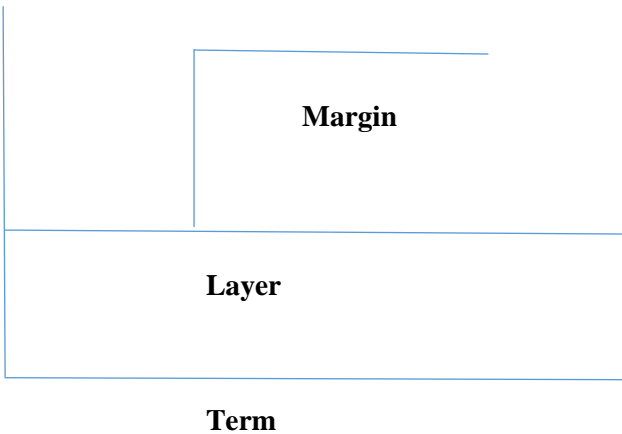
while K is used for the same period in the reversion.

d. The term period is over value since a growth pole yield used K-1 is used to capitalize it.

2.2   Graphical Representation

"Term and Reversion"

A - Pv
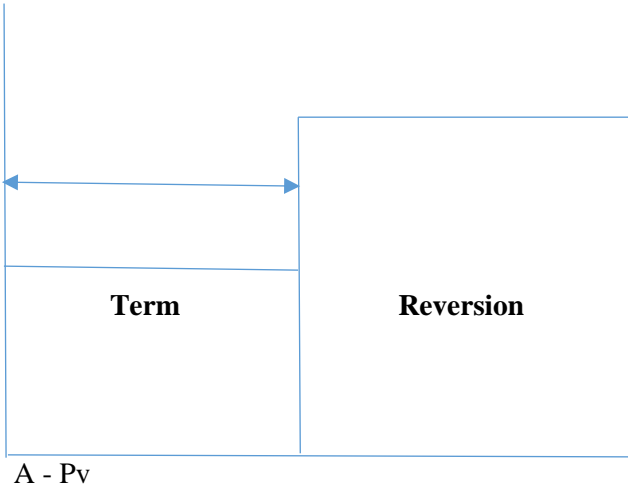
"Layer Approach"

Criticisms of Graphical Representation

The yield used to capitalize the 3rd slice have never be criticize because it is derived in a non – market and rather arbitrary manner. Valuation therefore condemned this approach and developed in the direction of hard core.

2.3   Hard Core Model (Layer Method of Valuation)

The layer method capitalizes the existing (term) income in perpetuity and also capitalizes only the additional income in

perpetuity adjusted for the years that must elapse before it becomes receivable.

The layer (or hard core) way of valuation is applied as another method from the conventional term and reversion approach. The approach has both benefits and de-merits.

This model is:

1. It capitalizes present rent (hard core rent) into perpetuity
2. Then it capitalizes the top slice rent (difference between the market rent and the hard-core rent) that will start from reversion into perpetuity, this defers it as is appropriate.
3. Then the two capitalized values are added.

"Under – Rented Hard-core Method"

£ |

Top Layer

Hard – Core Layer

Term

"Over – Rented Hard-core Method"

£ |

Top Layer

Hard – Core Layer

Term
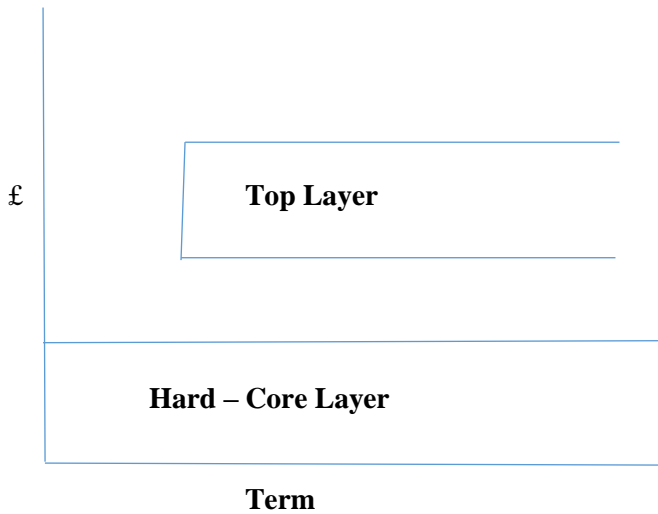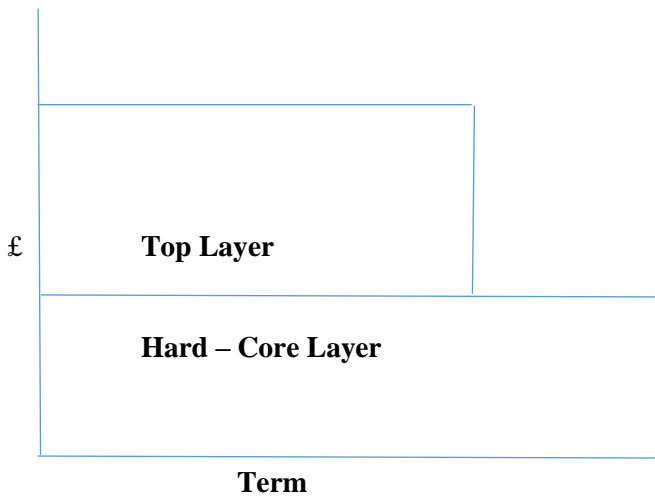
This layer's mode of appraisal penetrates horizontally the income process which is still the most common way to use. In the case of the under – rented, the top slice represents the possible capital gain of the reversion, whilst the over – rented case, Calculation:

the top slice shows the excess income above market rent for the unexpired term of the lease showing that there is a fixed income that depends mainly on the ability of tenant to continue to pay the rent.

	Yp	Formula	Yield
Term	Yp for n years	(1 – 1+ yield) – years yield	Initial Yield
Top Layer	Yp in perpetuity def n years	(1+ yield) – years yield	Reversionary yield
Hard – Core Layer	Yp in perpetuity	1 yield	Initial Yield

Where 'years' is the number of years to lease expiry and 'yield' is derived from a comparable property. Furthermore, under – rented occurs when the current rent is lower than the present market rent and this will not allow the tenant to leave. It can then be deduced from this that the income from rent process is more certain and should be appraised with the application of a lower yield than the ERV. The over – rented outline layer means of valuation is where the existing rent is more than the market rent, as when supply exceeds demand.

Criticism of Hard – Core Model
1. The split of the reversionary income into two part is arbitrarily and irrational. The risk of non – receipt of the reversionary income applies to the whole reversionary income and not a part of it.
2. Both the layer method and its modification that is the hard-core method relies on the rules of Tom that is K -1 and K + 1 for the layer, and K -1 for the hard core. As earlier stated, it is more reasonable to adjust the bottom yield by the proportion of rent.

3. Layer is overvalued, since growth prone yield (K – 1) is adopted to capitalize it.
4. The FRV is taking as the current FRV rather the FRV at reversion.
5. A mathematical error result, when 2 interest rates are used for the same period.
6. K (All risk yield) is not easily relatable to the equated yield and there is no use of equated yield in the calculation, creating a problem of cross investment comparison for portfolio manager.

2.4   Equivalent Yield Method
Equated or Internal Rate of Return (IRR) without growth is another name for equivalent yield method. This discount rate is used uniformly for all income flows producing a current value, equal to the capital value of investment. This can be structure after term and reversion, and the layer approach. The difference is in the fact that same yield is used for both layer and margin.

Formula:
Equivalent Yield = Present value of Income + Annual Equivalent of gain x 100

Price
Hence,
E = Gain in Reversion x Pv for term
                Yp for Term
Thus,
Equivalent yield = Present Value of Income + Annual equivalent gain x 100
                Price
More so, another name for price is capital value.

3.0 The Relevance of Growth Explicit Model on Valuation

Contemporary growth explicit valuations are rational and investment led as they duplicate the boost and pattern of pricing by investors appraising property investment in arrangement with the return expected from investment and associated targets rates of return. This enables transparency and comparability with mainstream investment markets.

However, development resulting from criticism of the conventional method of investment valuation led to the emergence of the contemporary models of investment valuation. These models are also known as growth explicit models. The growth explicit model is the following:

i. Rational Model develop by Sykes (1981) base on the work of greaves and,

ii. Real value model develops by Crosby (1983) base on the work of wood.

The two scholars shorting the discounted cash flow (DCF) model due to the difficulty attached to free hold valuation in perpetuity. However, Sykes and Croby DCF requires 3 inputs:

i. The Internal Rate of Return (IRR) which is the equated yield (e)

ii. The Growth implicit market capitalization (k)

iii. The Review Period (T)

Rent payable has review can be explicitly calculated instead of remaining merely implied in the all-risk yield. This is done by calculating implied rental growth.

Method 1:
For calculating growth rate (g).
$K = e - (ASF @ e) \times (1 + g)^t - 1$

Method 2:
$$G = [(e - k) \frac{(1 + e)^t - 1}{E} + 1]^{1/t} - 1$$

Method 3:
$(1 + g) = \frac{yp\ perp\ @\ k\ -yp\ t\ years\ @\ e}{Yp\ perp\ @\ k\ \times\ pv\ t\ years\ @\ e}$

Where, g = rental increase, t = period of review, e = equated yield, k = capitalization rate

Thus, ASF = Annual sinking fund to replace the capital gain at the equated yield. In this regard, it is clear that recent approaches of market valuation are investment oriented led, forward looking, rational and objective since they reflect investor's assumptions on the coming of cash flow that is evident in pricing behavior. Derivation from market capitalization charge implied that rental increase lend the methodology way of being objective in a market valuation context.

In view from another angle, the recent approach (contemporary models) can be classified as follows:

❖ Discounted Cash Flow models
❖ Statistical Approaches
❖ Neural Network and
❖ G I S Approach.

The Discounted Cash Flow model is the most attractive to the professional.

Mokrain, (2002), opined that appraisal method used in the western countries like the UK, Netherlands, Germany, France and Sweden differ between DCF approaches and income capitalization approaches. DCF approaches are clear-cut ways to sort the old method of appraisal of over-valuation of the term and undervaluation of the reversion. This can be classified as follows:

- ➤ Growth explicit models: Greaves 1972,
- ➤ Marshal's equated yield analysis (1976).
- ➤ Sykes Rational model (1981) is hybrid version of equated yield model.
- ➤ Real value approaches: wood (1973),
- ➤ real value/ equated yield approach: - a simplified and remodeled version of greave's real value approach (Crosby, 1983).

Various other proposed models in the literature are hierarchical and statistical approach, Analytical Hierarchical Process (AHP), Verbal, unbalanced scaling technique commonly used in attitudinal research, Neural network model, Time series, G I S and Hedonic analysis (Greaves, 1984; Yeosweeching, 1983; Ong and Chew, 1996; Adair, Berry and McGreal, 1996; Do and Grudnitski, 1992; Conellan and James, 1996; Wyatt 1996).

Many authors have written on the relevance of each of these models. Part of these models are already available which are being used for Nigeria real estate market while some others are not. This study is not duplicating such views but is willing to evaluate and determine empirically the roles and importance of these models to the property market in Nigeria.

Observation and Recommendations

Although both conventional and modern approaches use market comparisons in getting appraisal results, the changes in the conditions of market and the limitation of market information does not necessarily diminish the modern model of valuation as much as it has effect on the conventional model. In a falling market with limited transactions, comparisons tend to dry up which challenges the wholly comparison based conventional valuation approach.

Modern valuations can handle the intricacies and variation that are peculiar to modern leases better by exposing their estimates of the pattern of the future cash flow. Thus, there are a few criticisms of the contemporary valuation approach. This can be linked to the subjectivity of the target rate of choice, the assumption of a constant rental growth which may be unrealistic, and the relative risk of a certain term income and uncertain reversionary cash flows.

However, these have been shown not to be significant weaknesses. While target rate choice is not very material, implied rents can be checked against market and economic expectations (Baum, Mackmin, & Nunnington, 2011).

Hence, care must be exercised in reviewing implied rental growth to retain the market essence of contemporary market valuations (Crosby & Goodchild, 1992). The selection of a risk adjusted discount rate that reveals the relative risks of parts of an appraisal is the core debate about the different techniques of modern market valuation.

4.0   Conclusion

Crosby (1996) demonstrated the reconciliation of valuation solutions by the real value, the arbitrage and the short cut DCF techniques using the same discount rate, arguing that the content of a valuation in terms of the basis for discount rate choice should be the main consideration rather than the mechanics of technique. The models essentially do the same things but in different ways. Whereas DCF models pronounce the growth in a cash flow, and the actual value model shows it in the discount rate (Baum & Crosby, 2008).

Conclusively, Contemporary valuations are able to embrace and fit in all market situation even if there is no appropriate evidence. Meanwhile conventional valuation are not completely dependent on property market facts and also have access to other machineries from capital market.

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