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Examination of Valuation Variance in the Use of Cost Method of Valuation in Calabar Metropolis

Dr James Bassey Effiong & Mercy Arop Ewah
Department of Estate Management, University of Cross River State, Calabar
Email: jameseffiong@unicross.edu.ng Tel: 07032544821

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Abstract: *The study examined cost method of valuation and valuation variance in valuation practice in Calabar metropolis. The study adopted the survey research design and data collection was through questionnaire administered on the study respondents. Purposive sampling technique was used in selecting the sample size which was made up of estate surveying and valuation firms in Calabar. The study used two sources of data collection i.e. primary and secondary sources of data collection. Data collected with the use of questionnaire was analysed with both descriptive and inferential statistics. The simple linear regression indicates that the correlation coefficient (r) was computed at $p < 0.05$ while the result shows that F calculated is significant at 0.000 which indicates that the predictor variables i.e. cost method of valuation was statistically significant at p less than 0.05. The result of the test of hypothesis shows that there is significant relationship between cost method of valuation and variance in valuation practice in the study area. The implication of the findings show that Estate Surveyors and Valuers prefer to use the cost method of valuation majorly to carry out valuation even when there is data available for other methods to be used. While some valuers adopt the use of the cost method of valuation they still do not follow the appropriate way of measuring depreciation as most of them do that through assumptions and others taking only the physical wear and tear of the property to consideration without giving concern to economic and functional aspects of depreciation in the property. Some valuers while carrying out valuation using the cost method tends to assume cost of building materials without consulting a quantity surveyor to get the current building cost of the materials that will be used. All these factors contribute to valuation variance in the study area. The study concludes by recommending among others that valuers should consult quantity surveyors who are cost estimators on data on current cost of construction, they should always adopt the appropriate bases and valuation method in carrying out valuation, avoid variance and inaccuracy in valuation practice by using appropriate and reliable methods and depreciation should be assessed as total accrued depreciation and not just considering the physical tear and wear of the property or rule of thumb.*
Keywords: Valuation, Variance, Cost Method, Depreciation, Methodology.

INTRODUCTION

Valuation is a core discipline of the Real Estate Surveying and valuation profession in Nigeria and forms the foundation on which the real estate profession is built. Valuation as it is known plays a very vital role

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in real estate transaction either for transfer of property ownership, financing and credit, taxation and rating investment advice, accounting, as well as management and control of investment record and decision making. The deviation between two or more valuations on the same subject property made at the same time for the same purpose is valuation variance. However, it is noted that no two valuers carrying out valuation on the same subject property given the same information will ever arrive at the same opinion of value. The growing concern for the variance in valuation in Nigeria is what needs to be given serious concern to especially where the acceptable margin of error falls beyond the acceptance limits. Ayedun et al (2011) noted that the valuation methodology and process and the results from valuers had formed the subject of debate, argument and controversy in most parts of the world for the past two and a half decades. The variance between valuation estimates produced by valuers in Nigeria and the predicted market prices have been subject of serious debate among the professionals, the academia and other valuation stakeholders. The significance of the variation in valuation was noted by Parker (2012) to adversely influence the valuer's character only if there may be a probability for adequate valuation methodology. As the concern of valuation variance continue to generate more debate, the consumers of valuation services may become weary and begin to question the reliability of the valuers opinion of value.

Methodology has been identified as one of the causes of valuation variance and inaccuracy and taking a look at the cost method of valuation shows that it is one of the most used method of valuation in Calabar even when the basis of valuation detect the use of either investment or comparison method. One of the requirements of the method is availability of data on unit costs and depreciation figures, where the required data is unavailable, and other methods are not suitable, it could lead to non–scientific assumptions or what one could refer to as " on-the-spot" assumptions, particularly where time is of essence (Onyejiaka, Oladejo and Emoh, 2015). The cost method of valuation is based on the principle of substitution and it is a method of valuation use to determine the value of a property by making reference to the cost of replacing the property as if it is new and making necessary allowance for depreciation to accommodate the tear and wear of the property. The Green Book (2024) approves that, in applying cost approach, the valuers must follow the stipulated guidelines contained in International Valuation Standard (IVS) 105 paragraph 70.1 – 14. This approach guides the application of valuation of real property interests using the depreciated replacement cost (DRC) method. DRC is used where there is no active market for the asset being valued – that is, where there is no useful or relevant evidence of recent sales transactions due to the specialized nature of the asset and where it is impractical to produce a reliable valuation using other methods (RICS Guidance Note, 2018; Green Book, 2024, Anih and Usenemana, 2021). One of the problems encountered in practice when using the cost method of valuation are unavailability of up to-date data on construction costs; inadequate data for calculation of depreciation (where cost of construction or historic cost is known). The aforementioned problems have led to numerous assumptions which can render a value opinion inaccurate and unreliable (Onyejiaka et al, 2015). This study examines valuation variance in the use of the cost method of valuation in Calabar metropolis.

LITERATURE REVIEW

Depreciated Replacement Cost and its Application

Depreciated replacement cost is defined by RICS (2005) and IVSC, (2007), as "the current cost of replacing an asset with its modern equivalent asset less deductions for physical deterioration and all relevant forms

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of obsolescence and optimization". Another definition is provided by Hoesli and Macgregor (2000): that depreciation is the loss of rent or capital income of an ageing property when compared with an equivalent new property. The cost approach to value is well understood by the valuers. The cost method of valuation may be defined as the method of determining the value of a property by reference to the cost of replacing it or procuring an acceptable substitute (Ifediora, 1993). Kalu (2001) defined the cost method of valuation as a method that involves the assessment of the gross area of the being assessed and multiplying it with the replacement cost or reproduction cost per unit area of equivalent or comparable property. The product is depreciated to arrive at the depreciated replacement cost. The cost method of valuation is used to determine the depreciated replacement cost of an asset and the principle considers three basic components, namely cost of the building, allowance for depreciation and the value of land. This method is the most commonly used method in practice and it involves the estimation of the replacement cost new of a property which is then depreciated at a percentage depending on the state of the property (Effiong and Mfam, 2015). The approach adopted in most of the valuations carried out is to examine the property in question and taking into consideration its age, level of maintenance and obsolescence. The valuer then makes judgment based on his/her professional expertise or experience to arrive at the rate of depreciation (Gyamfi-Yeboah and Ayitey, 2006). Valuers in doing this rely on different models or mathematical calculations to guide in the estimation of the depreciation rate. However, there is no consensus in the valuation profession about the method of depreciation which reduces the level of variations in the valuer's opinion of value (Effiong and Mfam, 2015).

Ogunba (2011) observed that the principle of substitution is the technical basis of the cost approach, which states that no rational person will pay more for a property than the amount for which he can obtain, by purchase of a site and construction of a building, with undue delay; a property of equal desirability and utility. The cost approach therefore seeks to determine the value of property by aggregating the cost involved in its development. Depreciation is introduced into cost approach because the cost involved in development alone addresses newly completed development; they may not provide an accurate estimate of the loss in value over time. In valuation standards across the world, depreciation is seen as a composite term consisting of three items: physical deterioration, functional obsolescence and economic obsolescence (RICS, 2005; NIESV, 2006; IVSC, 2007). Physical deterioration is depreciation that results from wear and tear over time, including any lack of maintenance. Functional obsolescence is caused by advances in technology that result in new assets capable of more efficient delivery of good and services, rendering previously existing assets fully or partially obsolete in terms of current cost equivalency. Economic obsolescence results from changed economic conditions which affect the supply and demand for goods and services produced by the asset or the cost of its operation. The measurement of depreciation in the use of cost approach methods for valuation purposes has been a subject for a number of several empirical studies (Bello, Ogunba and Adegunle, 2015). There is however no current consensus within the valuation professionals as to which of the several approaches is to be used in estimating accrued depreciation so as to adequately address the key indices that are of concern to valuers namely age, level of physical deterioration, functional and economic obsolescence (Bello et al, 2015).

Bello et al (2015) evaluates the appropriateness of depreciation measurement in cost method of valuation in Lagos metropolis. The study adopted the stratified sampling technique in the selection of 154 respondent estate surveying and valuation firms for data collection of which only 131 respondent's data was retrieved for analysis. The findings from this study indicate that that the use of depreciation in the cost methods of valuation has accuracy deficiencies. Their study concluded that depreciation measurement in the study area

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is user friendly, but inaccurate, inconsistent and incapable of separating components. Effiong and Mfam (2015) examined how total accrued depreciation can be assessed using the cost method of valuation. To achieve this, three properties were used as case study in Calabar, Cross River State of Nigeria and thorough inspections were carried out to assess the rate of depreciation in each of the properties. The study adopted a non-probability sampling technique and the convenience or purposive sampling technique was used in the selection of the three properties studied. The study also adopted a decompositional total depreciation approach which was applied to assess depreciation rate for the valuation of the properties. The findings from the study showed that total accrued depreciation should be considered in valuations as it narrows the gap that exists between cost method and investment method. In the UK, Plimmer & Sayce (2006) noted that inconsistency in the cost depreciation approach has resulted in concern amongst UK client public sector organizations which have found that their ability to budget for their core services has been compromised as a result. Plimmer and Sayce (2006) observed that, because there is no strict and definitive methodology, there are numerous scopes for valuers to change the use of their methods. Bello (2014) and Bello et al. (2015) conducted studies in Lagos and observed that estate surveyors and valuers mostly use the rule of thumb method to estimate depreciation. However this method relies on subjective judgement and experience, and hence valuers' estimates vary based on their experience and sense of judgment.

Variance in Cost Method of Valuation

Previous studies in Nigeria on valuation variance were focused more on investment properties with little focus on variance in cost method of valuation (Ayedun, et al., 2012; Effiong, 2015). In the cost approach to valuation, valuers often collect and measure variables resulting in high levels of discrepancies among valuers (Adegoke, 2016). The essence of valuation is to determine the market value of properties by using objective and scientific methods with high precision in capital value determination (Effiong, 2015). Hence, the need to observe careful assessment is important especially when subjectivity, which might result in the variance of values, is applied (IVSC, 2019). Liao et al (2018) noted that appraisers should uphold an independent, objective, and fair stance and follow the principle of highest and best use when performing real estate valuations. Geltner (1993) observed that because of the unobservable nature of the values of real estate properties, valuation outcomes are often biased and deviate from actual market prices. Babawale (2011) agreed that the root cause of inaccurate real estate valuations is the unobservable nature of the market value that appraisers attempt to forecast. Evans et al (2019) opined that in addition to differences in market information, behavioural conflicts that arise throughout the valuation process could result in inaccuracies and variations in the estimates. The difference between valuation estimates and transaction prices is termed valuation accuracy and is distinct from valuation variation, which is the difference between valuation estimates (Babawale & Omirin, 2012). Kucharska-Stasiak (2013) pointed out that the uncertainty of real estate valuation is not only regarded as the uncertainty of a single valuation but also as the discrepancy between numerous valuations of the same property performed at the same time and for the same purpose.

Iroham et al. (2014) argued that the accuracy and variation in valuation should be collectively regarded as errors in valuation. Because valuation estimates and transaction prices often cannot coexist, which in turn reduces their observability and the consistency of valuation estimates. The study of Effiong (2015) compared the level of valuation variance and inaccuracy between Nigeria and UK. In order to achieve the aim for the study, a survey method was employed using questionnaire administered on respondent estate surveyors and valuers in Calabar and Uyo metropolises. The study surveyed valuers opinions on the existence of valuation variance and inaccuracy, the possible causes and the margin of valuation error and data collected through questionnaire was analysed using descriptive statistics to find the mean score,

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standard deviation and percentages. The findings from the study show that valuation variance and inaccuracy is high in Nigeria as compared to UK. The possible causes include lack of standards, lack of market data/comparables, lack of regulatory framework, methods/bases of valuation adopted, client's influence, inadequate training of valuers, imperfect knowledge of the property market, wrong assumptions on cost per square metre, lack of professional experience as well as failure to discipline valuers on cases of negligence with lack of standards ranked first with the highest frequency and mean score. Effiong (2015) also recalled how the situation in the United Kingdom and Australia attracted public criticism, which led to the damaging effect of public confidence in the valuation profession and valuation process.

Hutchison et al. (1995) and Adair et al. (1996) carried out a study in the UK using hypothetical properties, which five national valuers and five local valuers used the same set of information on; both studies showed that valuation variance among the five National and five local valuers firms was 8.63% to 11.86% respectively. The study also showed that 80% of valuation had a mean deviation of less than 20% as observed with a wider variance in valuation. Hager and Lord (1985) carried out a foremost work on valuation accuracy. The study showed significant variance among 10 valuers on two properties, despite the use of similar data and the same method of valuation. This also results in disparity in the valuation opinion of estate surveyors and valuers carrying out valuation of the same property with the same data (Ayedun, 2012). Anih and Usenemana (2021) study aimed at determining the variables for the variance in the application of the cost method of valuation for estate surveying and valuation practice in Uyo. The sample of the population used for the research comprised 110 estate surveyors in Uyo. The survey method was used for the research. The sampling technique was purposive sampling. The data were analysed using standard deviation and analysis of variance (ANOVA). The findings showed that depreciation rates of $\sigma 2$ =113.974 and σ = 10.676 were over 60% of the total variance of values among estate surveyors and valuers. The construction rates and errors in manual measurements and computation of areas, volumes and dimensions showed $\sigma 2$ = 6.004 and σ = 2.4503, which accounted for 15% of total variance. The study recommends the use of a regional-based scientific approach to measure depreciation for consistency and high precision. Automated techniques, such as GPS, AutoCAD, Google Earth pro, are recommended by the authors to minimize variance in measurements.

Ashaolu and Bello (2022) have noted the concerns that over valuation accuracy and variance cannot be over-flogged, given the somewhat fluid nature of the concepts. Their Study realises that a specialist valuer or appraiser has a chain of sequential tasks anchored on their distinctive competencies. Twenty-two (22) Nigerian valuers based within Lagos Metropolis were made to conduct valuation assessments of selected landed and non-landed property assets and examined their perception of the adequacy of their acquired body of knowledge relevant to each asset category. Multiple regression analyses of the results from the study indicated that all the adaptive knowledge variables positively influence the valuer's competence in the valuation of both landed property and non-landed property assets. The standard deviation of the distribution reveals the variation/dispersion in their valuations, for landed property, being 7.77 while that of non-landed property is 32.24; by employing the 10% maximum variation rule of Glover (1985), 9% of the valuers fall outside the limit in respect of landed property whereas, the figure rose to 64% for non-landed property assets. This study finding is indicative of remarkably higher internal inconsistencies among respondent valuers on non-landed property assets.

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Effiong (2013) study on the effect of valuation variance and inaccuracy on Nigerian practice also identified valuation methodology as a cause of valuation variance and inaccuracy. The findings from this study shows that clients will lose confidence on valuers if they continue to provide valuations with wide variance and inaccuracy. Effiong (2018) study on review of valuation variance and the need for effective valuation standards in Nigeria noted opined that to avoid variance and inaccuracy in valuations, practicing valuers must resist client's pressure, adopt and use contemporary valuation techniques, adopt the appropriate valuation methodology and adhere strictly to valuation standards and also adopt proper basis and valuation methodology in carrying out valuation assignments. Clients generally depend on valuation opinions to make decisions on mortgage, insurance and other purposes. Such clients expect valuation opinions to provide an accurate basis for their investment decisions. Unfortunately, there is growing suspicion that the advice the valuers offer is driven by the need to increase or generate fees and that his assessment methods are shrouded with mystery and are indefensible (Chinaza, Fidelis & Chukwudi 2019). Nwosu (2019) similarly observes that outside the property industry there is wide suspicion of the valuation process.

The study of Effiong and Mendie (2019) compared and analysed valuation estimates and sale prices of residential properties in Calabar metropolis. The study adopted the research survey design and purposive sampling technique to select all practicing estate surveying and valuation firms in Calabar. A total of seven firms out of fourteen firms provided valuations and sale prices of seven properties. The valuations were compared to the sale prices of the properties which show some level of variation from the valuation estimate when compared to the later sales price. Property 1 shows a variance of 10%, property 2, 25%, property 3, 10%. Only property 4 was sold at the estimated valuation price while property 5 was sold above the valuation price indicating a 4.3% increase. Property 6 shows a variance of 14.7% and property 7 shows a variance of 25%. The accuracy of the valuation also depend on the knowledge of the valuer about the market, information on past transactions, his professional experience, avoiding undue pressure from clients and the appropriate basis and method of valuation to use. The findings from the study show that out of the seven properties studied, two were within the acceptable margin of ±10% while three were above the acceptable margin. The study recommends that the variance between the valuation estimate and the sales price should be minimal and fall within acceptable standards and only when the margin is slim can valuations be used as proxy for sale prices. Real estate valuation relies on real estate appraisers' accurate assessments, which reflects the need to improve the objectivity of the valuation process. From the perspective of behavioural economics, appraisers are prone to numerous behavioural conflicts that could result in variations in their valuations (Lee et al, 2022). Lee et al. (2022) study investigate the impacts of task complexity, overconfidence, confirmation bias, client influence, and anchoring on variations in real estate valuations. Structural equation modelling was employed for analysis. The results revealed that cognitive bias and client influence have significant and positive impacts on anchoring. Task complexity, overconfidence, and customer influence have significant and positive impacts on valuation variation.

METHODOLOGY

The study adopted the survey research design and primary data collection was through the use of structured questionnaire administered on practicing estate surveyors and valuers in Calabar. Purposive sampling technique was used in selecting the sample size which was made up of 15 estate surveying and valuation firms in Calabar. The study used two sources of data collection i.e. primary and secondary sources of data

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collection. Data collected with the use of questionnaire was analysed with both descriptive and inferential statistics and the hypothesis formulated was tested using the Simple Linear Regression.

RESULTS AND DISCUSSION

Table 1: Demographic Characteristics of Study Sample

Variables	Category	F	%
Gender	Male	12	80.0
	Female	3	20.0
	Total	**15**	**100.0**
Age of Firm	1-5 years	1	6.7
	6-10 years	1	6.7
	11-15 years	9	60.0
	16-20 years and above	4	26.6
	Total	**15**	**100.0**
Academic Qualification	HND	6	40.0
	B.Sc	5	33.3
	PGD	2	13.3
	M.Sc	1	6.7
	Ph.D	1	6.7
	Total	**15**	**100.0**
Years of Experience	1-10 years	5	33.3
	11-20 years	6	40.0
	21-30 years	4	26.7
	Total	**15**	**100.0**
Firm Area of Specialization	Valuation	15	25.0
	Real Estate Agency	15	25.0
	Property Management	15	25.0
	General Practice	15	25.0
	Total	**60**	**100.0**

Source: Researcher's Field Work, 2024

Table 4.1 shows the demographic characteristics of the study respondents. The gender distribution of the respondents show that 80% were males and 20% were females. The age of frim indicates that 6.7% of the respondent's firm are between 1-5 years and 6-10 years. 60% of respondent's firms are between 11-20 years while 26.6% firms are between 16-20 years and above. For academic qualification of the respondents, 40% have Higher National Diploma (HND), 33.3% have Bachelor of Science (B.Sc) while 6.7% both have Master of Science M.Sc and Doctor of Philosophy (Ph.D) respectively. The years of experience shows that 33.3% of the respondents have 1-10 years of practical experience, 40% have practical experience of 11-20 years while 26.7% have a practical experience of 21-30 years. On the firm's area of specialization, all indicate 25% meaning that all the firms specialized in Valuation, Real Estate Agency, Property Management and General Practice in the study area.

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Table 2: Professional level of experience contributes to non-reliable valuation methods

Variables	Frequency	Percent (%)
Yes	13	86.7
No	2	13.3
Total	**15**	**100.0**

Source: Researcher's Field Work, 2024

Table 2 above shows that 86.7% of the respondents said yes while 13.3% said no. This implies that the valuer's level of professionalism contributes to the adoption of non-reliable valuation methods when carrying out valuation assignments which in turn can lead to valuation variance.

Table 3: Method of valuation often used by valuers in valuing properties in the study area

Variables	Frequency	Percent (%)
Cost method	10	66.7
Investment method	2	13.3
Comparison method	3	20.0
Total	**15**	**100.0**

Source: Researcher's Field Work, 2024

Table 3 above shows the method of valuation often used by valuers in the study area to value properties. From the responses above, 66.7% of the valuers use the cost method of valuation, 13.3% use investment method of valuation while 20% use comparison method of valuation. From the result above, the cost method of valuation is the most used method in valuing properties in the study area.

Table 4: Use of cost method of valuation even when property has data for investment method of valuation

Variables	Frequency	Percent (%)
Yes	10	66.7
No	5	33.3
Total	**15**	**100.0**

Source: Researcher's Field Work, 2024

Table 4 shows that 33.3% of the values said no while 66.7% said yes implying that majority of the valuers use cost method of valuation even when there is available data for the application of the investment method of valuation. This in turn contributes to variance in valuer's opinion of value.

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Table 5: Ways of deriving cost of construction when using cost method of valuation

Variables	Frequency	Percent (%)
By assumption	6	40.0
Contacting other valuers for cost data	2	13.3
From cost bulletins	1	6.7
By rule of the thumb	2	13.3
Reference to previous valuation	2	13.3
From Quantity surveyors	2	13.3
Total	**15**	**100.0**

Source: Researcher's Field Work, 2024

Table 5 shows ways through which valuers in the study area derive cost of construction in the use of cost method of valuation. From the responses above, 40% of the valuers derive cost of construction by assumption, 13.3% by contacting other valuers for cost data, 13.3% by rule of the thumb and 13.3% from quantity surveyors while 6.7% derive cost of construction from cost bulletins.

Table 6: Measuring depreciation in cost method of valuation

Variables	Frequency	Percent (%)
By assumption	3	20.0
By physical tear and wear	9	60.0
By calculating total accrued depreciation	2	13.3
By rule of the thumb	1	6.7
Total	**15**	**100.0**

Source: Researcher's Field Work, 2024

Table 6 shows data presentation on how depreciation is measured by valuers in the study area when using cost method of valuation. From the results presented above, 20.0% measure depreciation by assumption, 60.0% measure depreciation by physical tear and wear of the property, 13.3% of the valuers measure depreciation by calculating total accrued deprecation of a property while 6.7% measure depreciation by rule of the thumb.

Table 7: Consideration given to functional and economic depreciation when using cost method of valuation to value a property

Variables	Frequency	Percent (%)
Yes	3	20.0
No	12	80.0
Total	**15**	**100.0**

Source: Researcher's Field Work, 2024

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Table 7 shows whether valuers in the study area give consideration to functional and economic depreciation when using the cost method of valuation. From the responses above 20.0% of the respondents said yes while 80.0% of the respondents said no. This implies that majority of the valuers do not consider functional and economic types of depreciation when carrying out valuation assignment using the cost method of valuation. They focus more on physical depreciation.

Table 8: Valuation variance occur when using cost method of valuation in valuing all properties

Variables	**Frequency**	**Percent (%)**
Yes	13	86.7
No	2	13.3
Total	**15**	**100.0**

Source: Researcher's Field Work, 2024

Table 8 result shows that13.3% valuers said no while 86.75 of the valuers said yes which implies that valuation variance occur when using cost method of valuation in valuing all properties in the study area.

Table 9: Wrong assumption of construction cost, depreciation rate and inability to determine age of property contributes to valuation variance in the use of cost method of valuation

Variables	**Frequency**	**Percent (%)**
Yes	15	100.0
No	0	0.0
Total	**15**	**100.0**

Source: Researcher's Field Work, 2024

Table 9 above shows that 100.0% of the respondents said yes while 0.0% said no. This implies that wrong assumption of construction cost, depreciation rate and inability to determine the age of property contributes to valuation variance when using the cost method of valuation.

Table 10: Over dependence on physical depreciation and lack of data on depreciation rate contributes to valuation variance in the use of cost method of valuation

Variables	**Frequency**	**Percent (%)**
Yes	15	100.0
No	0	0.0
Total	**15**	**100.0**

Source: Researcher's Field Work, 2024

Table 10 above shows that 100.0% of the respondents said yes while 0.0% said no. This implies that over dependence on physical depreciation and lack of data on depreciation rate also contributes to valuation variance when using the cost method of valuation.

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Test of Hypothesis

Ho: Cost method of valuation does not contribute to valuation variance in the study area.

H_1: Cost method of valuation does contribute to valuation variance in the study area.

To test the above hypothesis, the simple linear regression model was computed as shown below.

Regression

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Cost method of valuation	.	Enter

a. Dependent Variable: Valuation variance occur when using cost method of valuation to value properties

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.784[a]	.615	.586	.22646

a. Predictors: (Constant), Cost method of valuation

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.067	1	1.067	20.800	.001[b]
	Residual	.667	13	.051		
	Total	1.733	14			

a. Dependent Variable: Valuation variance occur when using cost method of valuation to value properties

b. Predictors: (Constant), : Cost method of valuation

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.667	.270		2.473	.028
	Cost method of valuation	.667	.146	.784	4.561	.001

a. Dependent Variable: Valuation variance occur when using cost method of valuation to value properties

The correlation coefficient (R) = 0.784

Coefficient of Determination (R^2) = 0.615

$P < 0.05$

Degree of freedom = 14

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F-calculated = 20.800
F-tabulated = 2.96

Decision: Reject Ho if f-calculated is greater than f-tabulated and vice versa.
The Regression Model R^2 is significant with $F_{0.05, 1.13}$ Cal. = 20.800 and $F_{0.05, 1.13}$ Tab at P < 0.05 level and d.f. (1, 13 = 2.456). The regression model shows that the correlation coefficient (r) was computed at p < 0.05 while the result shows that F calculated is significant at 0.001 which indicates that the predictor variable (Cost method of valuation) is statistically significant at p < 0.001 less than 0.05. The Regression coefficient R= 0.784 implies a positive correlation between the dependent and the respective independent variables in the study. The R^2 indicates that there is 61.50% variation from the dependable variable. Therefore, the null (Ho) hypothesis is rejected and the alternate (Hi) hypothesis is accepted and concludes with 95% confidence that Cost method of valuation does contribute to valuation variance in the study area.

CONCLUSION AND RECOMMENDATIONS

The study tested one hypothesis with the use of simple linear regression. The test of hypothesis yields co-efficient of linear regression (R) of 0.784^a and linear regression R-square (R^2) of 0.615. The result also shows that the analysis of variance (ANOVA) for the linear regression produced an f-ratio of 20.800 which is significant at p < 0.001 less than 0.05 and shows the combined effect of the predictor variable is significant in explaining the contribution of cost method of valuation in variance in valuation opinion in the study area. The findings from the study implies that the use of the cost method of valuation contributes to valuation variance in the study area. This variance in value opinion is attributed to using cost method in valuing properties which ought to be valued using investment method, wrong measurement of depreciation, determination of the age of the property to be valued, wrong assumption of construction cost, over dependence on physical depreciation as well as lack of data on depreciation rates. Further findings from the study indicate that only a few valuers measure depreciation of a property based on total accrued depreciation while others either depend on physical tear and wear of the property, assumptions and even rule of the thumb. Also, the findings from the study show that majority of the valuers derived cost of construction per square metre by assumption, contacting other valuers or by reference to previous valuations. Only few valuers consult quantity surveyors for cost estimates on construction cost. All these factors contribute to valuation variance in the study area. The study concludes by recommending among others that valuers should also consult cost estimators such as quantify surveyors and current construction cost, valuers should always adopt the appropriate bases and valuation method in carrying out valuation, avoid variance and inaccuracy in valuation practice by using appropriate and reliable methods and depreciation should be assessed as total accrued depreciation and not just considering the physical tear and wear of the property or rule of the thumb.

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