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# Acquired Body of Knowledge: a Core Valuation Influencing Factor in Inter-valuer Variance

Thomas, A. Ashaolu<sup>1</sup> (<u>https://orcid.org/0000-0003-4906-4550</u>) and Mustapha Oyewole Bello<sup>2</sup> (<u>https://orcid.org/0000-0002-6294-5195</u>)

<sup>1</sup>Department of Estate Management & Valuation, The Federal Polytechnic, Ilaro, Nigeria <sup>2</sup>Department of Estate Management, Federal University of Technology, Akure, Nigeria

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#### Abstract

Concerns about over valuation accuracy and variance cannot be over-flogged, given the somewhat fluid nature of the concepts. It is, however, more apt to dig into their more fundamental causative factors. This paper realises that a specialist valuer or appraiser has a chain of sequential tasks anchored on their distinctive competencies. At the heart of this is sufficient knowledge of the attributes of their subject of valuation.

Twenty-two (22) Nigerian valuers based within Lagos Metropolis were made to conduct valuation assessments of selected landed and non-landed property assets and examine their perception of the adequacy of their acquired body of knowledge (BoK) relevant to each asset category. Multiple regression analyses of the results 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 is indicative of remarkably higher internal inconsistencies among respondent valuers on non-landed property assets. Given these findings, there is an urgent need to review and expand underlying curriculums for training prospective valuers towards aligning theory with practice and enhancing their competence across property types.

Keywords: asset types, body of knowledge, inter-valuer variance, valuation activities

<sup>&</sup>lt;sup>1</sup> Corresponding authors' email address: <u>bioashaolu@gmail.com</u>

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### 1. Introduction

A problem cannot be overemphasised when its underlying factors have not been fully explored. Such is the case with the controversies surrounding 'the right figure' in property valuation (Boyd & Irons, 2002, Effiong, 2015). Valuation has been aptly described as an 'estimation of value' where the 'actual value' is what plays out upon the occurrence of the anticipated event (Skitmore, Irons & Armitage, 2007; Ayedun, Oloyede & Durodola, 2012). Hence, as noted by Mallinson Report (1994), Carsberg (2002) and Royal Institution of Chartered Surveyors Guidance Note (GN5, RICS 2003), all valuation figures are subject to some form of uncertainty, given that the expressed estimate of the value figure has to do with future expectations of benefits accruable from the property asset. As such, uncertainties in estimating future benefits, including appropriately discounting them into present worth equivalents, could result in either an inaccuracy of a predicted figure or variability between two or more valuers, thereby producing twin topical concerns - valuation accuracy and valuation variance. The problem often manifests in three forms:

- i) inaccuracy of reported value (estimated at the valuation date) in predicting eventual transaction price (presumed to be actual value) playing out at a future date;
- ii) inaccuracy of reported value in predicting eventual transaction price when adjusted back to the valuation date; and
- iii) differences or variations between the figures of value reported by two or more valuers.

Incidentally, the accuracy of value is more difficult to measure compared to variance among study participants. While measurement of accuracy is tied to the occurrence of an expected event, variance is a gauge of consistency among professional peers (Addae-Dapaah, 2001). The estimate's accuracy is a longitudinal measure with the possibility of intervening periods producing changing determinant conditions. Besides, it has been observed that studies on the accuracy of valuation figures in predicting transaction prices often underplay the intricate variability of circumstances surrounding each property sale (Baum, Crosby, Gallimore, Gray, & McAllister, 2000). On the other hand, variance is a cross-sectional measure at a given point in time to determine internal consistencies among a particular group of valuers. Causative factors of variability in the output of professional peers are themselves possible indications of gaps to be bridged in their input or qualification requirements. As posited by Druckman and Bjork (1994), several circumstances can limit the ability to transfer training to performance, except contexts of training are made to simulate fields of performance. Fortunately, most professional training courses are laden with practical demonstrations and periods of internship to achieve this.

i) Sheehan (2011) reiterated the challenge confronting valuers to be the difficulty of finding comparable data. Valuation of property assets is event-driven or a derivative activity – often resulting from a factual or perceived departure from a norm. Branded products in their original state and situation seldom require specialist advice on value until their state or situation/location has been altered. Thus, a soft drink bottle may change its shelf value in a location remote from its major distributor. At the same time, an unregistered 2019 Toyota Camry L.E. car manufactured in Kentucky, USA, could carry the uniform showroom price and/or value of \$25,265 across several garages in its country of manufacture, but upon reaching an auto showroom in Nigeria, the price or value may come to around \$48,600 after factoring shipping, clearing charges and other overhead costs. While the manufacturer's valuation of \$25,265 requires no professional assistance, the value in a Nigerian showroom may. However, the issue becomes more compelling in both countries after the car has been purchased and

registered on the road. The departure between average showroom price and value of the registered vehicle widens considerably, varying as per the mode of handling, purpose of use, nature of roads plied, regularity of maintenance, the intensity of use and age, among several other factors that would have altered its initial brand-new state. The essence here is in the ability to explicitly and sufficiently compare the designed parameters of the car as new – body, engine, transmission and electronics - with the actual, which are to be reflected in a fair figure of value. The valuer can no longer rely solely on a 'similar' registered car in another garage recently sold for, notwithstanding sharing the exact model particulars and manufactured date. This is where the acquired knowledge and expertise of the valuer comes into play as the focus of this paper.

ii) This research analysed the various activities involved in valuation, and attempts were made to examine the influence of the level of understanding of different asset types (know-what) on the figures of value reported thereon by various valuers.

# 2. Literature Review

Steps required in valuation are practical issues that can only be extracted from experience. National Timber Tax (2019) identified valuation steps that comprise others, defining the problem, planning the exercise and collecting data: general, specific and comparative. Valuation partners (2019) also pinpointed contact from the client, sorting out terms of instruction, an inspection of the property, market survey and reporting as part of the parameters for valuation. Argianas and Associates (2019) explained the four steps in use at their firm: understanding the purpose and function of the exercise, comprehensive on-site inspection of the property, collection of comparable data, and preparation and submission of the report. One major chore common to the aforementioned is a physical inspection of the property (or collection of property-specific data).

Generally, however, the valuer's activities can be broken down into five stages, as shown in Table 1. Stages I and II (receiving instruction and identifying the subject property) are preliminary activities that are administrative in nature.

Activity Areas in Valuation	[Ex]	planation
Stage I	i)	Understand the objective of asset holding
Receive Instruction	ii)	Clarify the purpose of the proposed valuation exercise
Stage II	i)	Establish quantum of ownership right or control
Identify Property		exercised by the client
	ii)	Ascertain presence
Stage III	i)	Characteristic features that can influence value –
Analyse Property		physical composition and other property-specific variables
	ii)	Condition of the property, including any need for remediation
Stage IV	iii)	Position of property in the local market
Interpret Market	iv)	General local market features as affecting value realisation

	v) Macro-economic influences
Stage V	i) Apply suitable basis and methods with reflective
Conduct Valuation	thought
	ii) Reporting

Stage III activities relate to property-specific investigative functions of the valuer (Armatyrs, Askham & Green, 2013). Arguably, this is central to distinguishing their competency. Success or otherwise at this stage is pertinent to the reliability of their eventual value conclusion.

Following the measurement of the competency model suggested by Fortunato, Lettera, Lazoi, Corallo and Guidone (2011), there are knowledge areas for the aspects of the method, technology and products involved in valuation activities to generate the required value figure. Eventually, the quality and reliability of the value (output) is a measure of the level of competencies fed into this activity.

One relevant area of discourse in this paper is whether efficiency in valuation dwells solely on access to market data or if there is also a need to correctly identify and assess value-influencing variables that are property-specific. A school of thought believes the major bane to the accuracy of value figures is access to market data (Adegoke, 2016; Waters, Dunse & Jones, 2018). In this context, valuation could be equated to pricing (Kummerow, 2003). But ordinarily, pricing more appropriately fits the final activity of a producer. As remarked by the classic economist Stroever (1897), the combination of cost and utility determines value. Value is, therefore, more relevant to prospective users of the asset as it denotes the present worth of the asset's unexhausted utility. The more the asset has been in use, the more difficult value-determination would become. Hence, valuation is an assessment, which Ajayi (2018) described as the process of collecting data to make a value judgement.

Taras (2010) has also defined assessment as the gathering and combining of performance data with a weighted set of goal scales to yield either comparative or numerical ratings. This is towards matching the attributes of an asset against those of similar assets having conclusive market evidence as a basis for determining if such asset should be exchanged below, at par or above what the comparable went for. Essentially, just like the provision of a basis for rating pupils, assessment as a framework for ascribing monetary worth to an asset requires knowledge of and the ability to analyse the attributes of such assets in economic terms (Crosby, Lavers and Murdoh, 1998 & RICS, 2010). Often, this specialist knowledge attracts the services of a real estate valuer to the auditor or a reporting entity when the carrying amounts of assets in a balance sheet are to be revisited (International Valuation Standards Council, 2012). In a related manner, it was discovered that in the United States and Australia, a distinction is often made between two forms of valuation (appraisal) – the advice on the value given by the real estate broker and actual assessment-driven opinion of value emanating from a qualified valuer or appraiser (Real Estate View, 2018 and Real Estate Institute of South Australia, 2020). While the former would draw substantially from their market experience, the latter is believed to possess a more in-depth analytical capacity for the asset and its market setting.

The difference between the value of a business as an entity and that of its separable assets in orderly use on the one hand and of the divisible assets under bankruptcy on the other is significant in this context. With a wholesome business valuation, the worth of assets is holistically subsumed in profitability analysis. Also, by valuing the assets of a business in an orderly operational state, the value of each identifiable asset is still somewhat indirectly tied to the profitability potential whereas, under the conditions of bankruptcy or liquidation, each asset becomes detachable and exposed to its 'Used Market Value'. Used Market Value can only be

effectively assessed through proper analysis of all its specific value-influencing variables to be mirrored against comparable items in the marketplace.

Another issue of discussion is the variation in the decision and opinion of two or more valuers engaged in the same assignment, either for affirmative decision or on different sets of related assets of an organisation. At the onset, it is apt to accept that two valuers working on the same property seldom come to the same conclusion of value (Aluko, 2007 and Ayedun, Oloyede, Iroham & Oluwumi, 2011). This is easily adduced to uncertainties that accompany every future estimate (Mallinson, 1994 and Carsbeg, 2002).

Incidentally, however, Parker (1998) believed incompetence in valuation could manifest through the inability of valuers to achieve the exact resulting valuations or where that resulting valuation does not match the market price, and the margin of difference is so significant as to exhibit a failure due to professional care. There has been a rather prolonged debate among practitioners and researchers coupled with judicial pronouncements regarding the maximum acceptable range of difference in value figures. The pioneering work of Hager and Lord (1985) involving ten valuers produced a range of  $\pm 10.6\%$  and  $\pm 18.5\%$ . The study of 5 valuers working on 14 hypothetical properties in the United Kingdom by Adair et al. (1996) showed a variance of 11.86% and about 80% of their figures, producing a deviation from the mean of less than 20%. Another study by Mokrane (2002) covering five countries - U.K., Germany, Sweden, France and Netherlands - between 1990 and 2000 indicated a relatively low level of variance among valuers. But the study by Effiong (2015) suggested that almost all 35 sampled Nigerian valuers (precisely 34 or 97.1%) opined that practitioners' range of value figures should not exceed  $\pm 20\%$ . While this is much outside the maximum valuation variance of  $\pm 9\%$ recommended by the courts in the U.K. or about  $\pm 11.1\%$  to  $\pm 13.16\%$  revealed in an earlier Nigerian study by Ogunba and Iroham (2010), the ±20% yardstick has been adopted in this study to compare the performance of respondent valuers in landed and non-landed property assets.

# 3. Methodology

The study has two aspects – comparative analysis of variance across different asset categories and ascertaining the impact of knowledge about an asset on its valuation. For the first part, the study adopted the analysis of variance (ANOVA) through F-Test Two-Sample for Variances and k-sample comparison of variances. In contrast, correlation analysis was used to establish the relationship between observed variations in figures of value and the competence of valuers.

The study tests the correlation of respondent valuers' figures on typical landed property assets and some sets of non-landed property assets, specifically plants and machinery. The approach adopted here followed the pattern established by previous efforts at measuring valuation accuracy and variance among valuers, where sampled valuers were made to value a given property independently (for example, Hager & Lord, 1985; Ogunba, 1997; Ogunba & Ajayi, 1998 and Ogunba, 2004). Due to the tasking and location-specific nature of the survey, only 27 practising valuers familiar with the chosen location within the Lagos metropolis were found suitable for participation, with 22 (about 81%) producing analysable results. Also, within this study, each respondent valuer's competency score in a given exercise was measured by the level of variation of their figure from the mean of values reported (with this mean figure used as a 100 index), following the approach Tranter and Warn (2003). On the possible influence of the acquired body of knowledge about an asset on variance in value across professional peers, the valuers were requested to assess by Likert-like scaling the level of adequacy of their acquired competencies or body of knowledge (BoK) on common asset types under the landed property and non-landed property types respectively. The outcome was subjected to multiple regression analysis to ascertain the correlation, strength of relationship, and directionality of influence between the dependent and corresponding independent variables. The model is formulated on the a priori postulation that the valuer's ability to carry out asset valuation depends on their adaptive knowledge of the assets. In other words, the theory can be explained as a functional relationship between asset valuation and adaptive asset knowledge (valuation-related education). Mathematically, this can be illustrated as:

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Valuation Competency = f (Adaptive asset knowledge).....(1)
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However, for the purpose of this study, the assets have been broadly classified into — landed property and non-landed property such that:

For landed property, we have:

Val = f(PEM, FUR and INT) .....(5)

Where PEM is Adaptive knowledge of Plant, Equipment and Machinery FUR is Adaptive knowledge of Furniture INT is Adaptive knowledge of Intangibles

For Econometric analysis for Landed Property:

$$Val_{LP} = \bar{\alpha}_1 + \beta_1 LAN + \beta_2 BUD + \beta_3 CIF + \beta_4 ENA + e.....(6)$$

And for Non-Landed Property:

$$Val_{NLP} = \bar{\alpha}_2 + \beta_1 PEM + \beta_2 FUR + \beta_3 INT + e....(7)$$

Where:  $\bar{\alpha} = intercept$  $\beta_1 - \beta_n = coefficients of$ e = error term The a priori expectations are:  $\beta_1 - \beta_n > 0$ 

#### 4. Results and Discussion

#### 4.1 Degree of Valuation Variance

The result from 22 valuers confronted with a hypothetical valuation of selected landed property and non-landed property assets are presented in Table 2, using the average of their value figures as a 100-base index.

Valuer	Figures of Value (indexed from the average as100)			
	Landed Property	Non-Landed property		
1	103	63		
2	98	103		
3	93	186		
4	101	30		
5	107	77		
6	93	55		
7	96	83		
8	82	136		
9	91	99		
10	105	84		
11	100	94		
12	102	90		
13	115	94		
14	106	110		
15	94	116		
16	101	81		
17	98	110		
18	103	67		
19	90	81		
20	114	101		
21	105	65		
22	105	132		
Percentage of Valuation outside $\pm 10\%$	9%	64%		
Percentage of Valuation outside $\pm 15\%$	0%	64%		
Percentage of Valuation outside $\pm 20\%$	0%	41%		

# Table 2: Analysis of Respondents' Indexed Value Figures on Hypothetical Asset Valuation

Source: Field survey (2019)

By employing the 10% maximum variation rule of Glover (1985), 9% of the valuers fell outside the limit in respect of landed property, whereas the figure rose to 64% for non-landed property

assets. When we stretch this to the outer  $\pm 15\%$  advocated by Baum and Crosby (1988), no valuer was screened out for the landed property, but the former 64% were still outside the bracket for Non-Landed Property assets and at 20% variance; 41% remained as outliers for non-landed property, while none fall outside the boundary for landed property assets. Also, the two sets of assets have a calculated value-correlation of -0.260, indicating a lack of positive relationship in the pattern of reported figures across the asset categories. This is expected, given the wide range of divergences in the indexed value figures on non-landed property in Table 2. Summary statistics are presented in Table 3.

Landed Property		Non-landed Property	
Mean	100.09	Mean	93.5
Standard Error	1.66	Standard Error	6.87
Median	101	Median	92
Mode	105	Mode	94
Standard Deviation	7.77	Standard Deviation	32.24
Variance	60.37	Variance	1039.5
Kurtosis	0.40	Kurtosis	2.37
Skewness	0.198	Skewness	0.865
Range	33	Range	156
Minimum	82	Minimum	30
Maximum	115	Maximum	186
Sum	2202	Sum	2057
Count	22	Count	22

#### Table 3: Descriptive Statistics of Valuation Outcome

Source: Field survey (2019)

From Table 3, the range of figures arrived at for these two sets of assets portrayed a grim situation for non-landed property (156), unlike just 33 for landed property. Invariably, while the standard deviation regarding landed property is approximately 7.77, that of non-landed property is as high as 32.24. This is indicative of remarkably higher internal inconsistencies among respondent valuers on non-landed property assets.

#### 4.2 Competence Level in Relation to Adaptive Knowledge

For further analysis and using the maximum percentage of the inter-valuer variance rule, the indexed valuation figures from each valuer, as presented in Table 2, were further disaggregated into indicated competence scores using the stratifications shown in Table 4 below.

Table 5 (in Appendix A) further below shows the subsequent competence scores from each respondent valuer vis-a-vis their rating of the adequacy of adaptive knowledge (acquired body of knowledge) of the value-influencing variables in respect of the different asset types.

Value Index	Percentage Variation	Competence Score
96-100 and 100-104	±5%	5
91-95 and 105-109	±10%	4
86-90 and 110-114	±15%	3
81-85 and 115-119	±20%	2
<81 and > 119	$>\pm 20\%$	1

 Table 4: Competence Scores Framework

Source: Field Survey (2019)

Four asset types were examined under the landed property category: Land (LAN), Buildings (BUD), Civil Infrastructure (CIF) and Environment (ENA). In the non-landed property category were Plant, Equipment and Machinery (PEM), Furniture (FUR) and Intangible Assets (INT). Adequacy of the acquired body of knowledge (BoK) was ranked from very inadequate (1) through to very adequate (5). A cursory inspection of the pattern of figures in Table 5 clearly indicates higher competence scores. It correlates higher adequacy rating of acquired BoK for landed property vis-à-vis corresponding figures for the non-landed property. This is consistent with the findings of Alainati et al. (2009) in their comparative analysis of two case studies with opposing conclusions on whether education and training have a direct effect on competence and, indeed, overall organisational competency. Though they recognised that other factors like personal characteristics, experience and cognitive capacities also exert influence on competence, their study confirmed the existence of a direct and positive effect of education and training (BoK) on both individual employees' competence and corporate competency.

Figures 1 and 2 below graphically illustrate the relationship pattern between a valuer's perceived level of BoK and their indicated competence level for each asset category presented in Table 5. While landed property indicates a close unidirectional pattern significantly above the 3.0 average line in Fig.1, Fig. 2 shows a much more disproportionate relationship with indicated competence level. Besides, the reported BoK levels for the non-landed property were substantially between the 2.5 and 3.5 range and generally under the 4.0 mark, unlike the results for landed property. In other words, the level of asset-specific competencies in the body of knowledge acquired by a valuer is a key determinant of their understanding of assets. This reflects the level of their competent handling and reliability of their valuation (Alainati et al., 2009 Ashaolu, 2017).

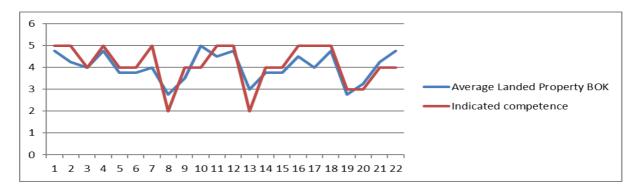
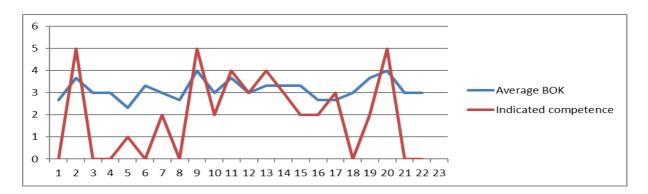


Figure 1: Landed Property Value-Competence Relationship

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#### Figure 2: Non-Landed Property Value-Competence Relationship

#### 4.3 Influence of Adaptive Knowledge on Competence Level

Data for landed property in Table 5 was further subjected to multiple regression analysis to ascertain the correlation, strength of relationship and directionality of influence between the valuer's competence (dependent variable) and the acquired level of knowledge (BoK) on corresponding assets (independent variables). The outcome is as contained in Tables 6 to 8. Table 6 shows the model summary, while Table 7 tests the statistical strength of the model through analysis of variance (ANOVA).

#### Table 6: Multiple Regression Model Summary on Landed Property

	Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
	1	.846 <sup>a</sup>	.716	.649	.55750	
~	a Dradictory (Constant) ENA CIE DUD and LAN h. Den and out Variables VAL					

a. Predictors: (Constant), ENA, CIF, BUD and LAN b. Dependent Variable: VAL<sub>LP</sub>

From Table 6, R Square is .716, which indicates that the model explains 71.6% of the competence of valuers in the landed property as being attributable to their acquired knowledge of these assets. In other words, the predictor variables - knowledge areas in LAN, BUD, CIF and ENA - explained 71.6% of the variances in the competence of valuers in the valuation of landed property assets.

Table 7:	ANOVA	(Landed	<b>Property</b> )
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Model	Sum of	D	Mean	F	Sig.
	Squares	f	Square		
Regression	13.307	4	3.327	10.704	.000 <sup>b</sup>
Residual	5.284	17	.311		
Total	18.591	21			

a. Dependent Variable: VAL competence b. Predictors: (Constant), ENA, CIF, BUD, LAN

The result from ANOVA table (Table 7) shows that the regression model is statistically significant with p = .000. The coefficient of the model is therefore presented in Table 8.

Model	Un-standardised Coefficients			t	Sig.	95.0% Confidence Interval for B	
	В	Std. Error	Beta			Lowe r Boun d	Upper Bound
(Constant)	-1.457	.948		- 1.536	.14 3	-3.458	.544
LAN	.358	.349	.250	1.025	.32 0	379	1.095
BUD	.685	.275	.490	2.487	.02 4	.104	1.266
CIF	.220	.216	.190	1.014	.32 5	237	.676
ENA	.035	.206	.038	.170	.86 7	400	.470

# Table 8: Coefficients for the Data Model

a. Dependent Variable: VAL<sub>LP</sub>

Table 8 shows the values of the unstandardised and standardised coefficients, t value, Sig. value and correlation components. This table shows that the acquired knowledge (or BoK) in all asset types positively influenced the competence level of the studied valuers at different confidence intervals. In particular, the body of knowledge (BoK) acquired in building (BUD) had about double the effect of that of land (LAN), which is because of the more complex and varied nature of different building forms the valuer is expected to understand. The t value further demonstrates this on buildings (BUD) 2.487 is greater than the 2.262 threshold at a 95% confidence interval (Sullivan, 2017).

For non-landed property, corresponding results of the multiple regression showing model summary, ANOVA and coefficient table are presented in Tables 9 to 11 below.

Table 9: Multiple Regression	n Model Summary o	n Non-landed Property
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Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.689ª	.475	.388	1.43851

a. Predictors: (Constant), INT, FUR, PEM b. Dependent Variable: VAL<sub>NLP</sub>

Here, the R square is .475, indicating that acquired BoK can only explain 47.5% of the variation in valuers' competence. But for a survey attempting to analyse human behaviour, R-square below 50% would not be unexpected, provided the overall model is statistically significant (Tabachnick and Fidell, 2007, Frost, 2019). This statistical significance at a 95% confidence level has been validated in the ANOVA table (Table 10) with p = .008.

Model	Sum of Squares	Df	Mean	Square	F	Sig.
Regression	33.707	3		11.236	5.430	.008 <sup>b</sup>
Residual	37.247	18		2.069		
Total	70.955	21				

#### Table 10: ANOVA – Non-Landed Property

a Dependent Variable: VAL<sub>NLP</sub> b. Predictors: (Constant), INT, FUR, PEM

Model	Unstandardised Coefficients		Standardise d Coefficients	t	Sig.	95.0% Confidence Interval for B		
	B Std.		Beta			Lower	Upper	
		Error				Bound	Bound	
(Cons	-6.275	2.382		-2.634	.017	-	-1.270	
tant)						11.279		
PEM	1.113	.443	.434	2.513	.022	.182	2.044	
FUR	.537	.466	.200	1.153	.264	442	1.516	
INT	1.061	.443	.419	2.394	.028	.130	1.992	

#### **Table 11: Coefficients - Non-Landed Property**

a. Dependent Variable: VAL<sub>NLP</sub>

Table 11 also indicates the existence of a positive correlation among the two sets of variables - knowledge areas in each asset type exert a positive influence on the valuer's competence in the valuation of non-landed property assets. The unstandardised coefficients, described by Glen (2019) as the 'real life' case, revealed that knowledge in the plant, equipment and machinery (PEM) and intangible assets (INT) had more than a unitary, positive influence on the valuer's competence, thereby requiring that their valuation must be anchored on a deeper understanding of their intrinsic features, compared to furniture items (FUR). The t statistics of 2.513 and 2.394, which are higher than 2.262 at the 95% confidence interval, also reinforced the critical significance of BoK in PEM and INT, respectively, for valuers.

Ultimately, regression analysis results reveal that a valuer's capability to carry out asset valuation is significantly influenced or dependent on their adaptive knowledge of the assets concerned, with particular emphasis on complex items of buildings, plant, machinery, equipment and the intangibles.

#### 5. Conclusions and Recommendations

This study has revealed that practising Nigerian Estate Surveyors and Valuers are more consistent among themselves when confronted with the valuation of landed property assets much more than in their handling of non-landed property Assets. This finding is not unexpected given the emphasis on knowledge courses in landed property assets under the subsisting 'estate management' curriculum at both university and polytechnic levels, as revealed by Ashaolu (2021). Consequent to this is the wide inter-valuer variances in the valuation of the non-landed property. Thus, the perception that valuation is essentially a pricing problem, as expressed by Kummerow (2003), Adegoke (2016) and Waters, Dunse and Jones (2018), could only find meaning for landed property assets where the valuers have been demonstrated to possess a rich

background body of knowledge. Accordingly, there is an urgent need to review and expand the underlying curriculum for training prospective property valuers towards aligning theory with practice and enhancing their competence across property types. In the short run, continuous development programmes of the professional group would be required to place emphasis on areas of knowledge deficiencies of existing practitioners both to widen and update their competencies towards meeting contemporary demands. In the course of valuing such assets, more effective collaboration with experts on various specialised property assets would equally serve to bridge current knowledge gaps.

#### References

- Adair, A., Hutchison, N., MacGregor, B., McGreal, S., and Nanthakumaran, N. (1996). An analysis of valuation variance in the U.K. commercial property market: Hager and Lord revisited. *Journal of property valuation and Investment*, 14 (5), 34-47
- Addae-Dapaah, K. (2001). Valuation Accuracy A Problematic Enquiry; Eighth European Real Estate Society Conference, Alicante, June 26-29
- Adegoke, O. J. (2016) "Effects of valuation variance and inaccuracy on Nigerian commercial property market: An empirical study", *Journal of Property Investment & Finance*, 34 (3), 276-292, https://doi.org/10.1108/JPIF-08-2014-0056
- Ajayi, V. O. (2018).Difference between Assessment, Measurement and Evaluation in<br/>Education; Seminar presentation, Benue State University, Makurdi,<br/>Education, Department of Curriculum and Teaching; February
- Alainati, S., AlShawi S. N. & Al-Karaghouli W (2009). The effect of education and training on competency 1 the effect of education and training on competency; European and Mediterranean Conference on Information Systems; April 12-13
- Aluko, B.T. (2000) A Study of Appropriateness of Mortgage Valuation for Institutional Lending in Nigeria. Unpublished PhD thesis submitted to the Department of Estate Management, Obafemi Awolowo University, Ile-Ife.
- Aluko, B.T. (2007). Implications of the Current Trends in Mortgage Valuation Practice in Nigeria; International Journal of Strategic Property Management, 11:1, 17-31, DOI: 10.1080/1648715X.2007.9637558
- Argianas and Associates (2019). A step-by-step guide to the Real Estate Valuation process; Accessed 05/12/2019 online: https://www.argianas.com/valuation-process/
- Armatys, J., Askham, P. and Green, M. (2013). *Principles of Valuation*; London: Estates Gazette
- Ashaolu, T. A. (2017). Assessment of Asset-specific Competencies in Valuation: A survey of Nigerian practitioners; Peer-reviewed presentation, FIG Working Week 2017 Surveying the world of tomorrow *From Digitalisation to Augmented Reality*, Helsinki, Finland, 29 May–2 June
- Ashaolu, T. A. (2021). Assessment of valuation competency in estate management education in Nigeria; Unpublished PhD Thesis, Department of Estate Management, Federal University of Technology, Akure
- Ayedun, C. A., Oloyede, S. A., Durodola, O. D. (2012). An empirical study of the causes of valuation variance and inaccuracy in Nigeria; *International Business Research* 5 (3), 71-80
- Ayedun, C. A., Oloyede, S. A., Iroham, O. C., and Oluwunmi, A. O. (2011). Client's perception of the reliability of property investment valuation in Nigeria. Mediterranean Journal of Social Sciences, 2, (3), 479-486.
- Baum, A. and Crosby, N. (1988). Property Investment Appraisal; Routledge, London

- Baum, A., Crosby, N., Gallimore, P., Gray, A. and McAllister, P. (2000) The influence of valuers and valuations on the workings on the commercial property market, Report for the Education Trusts of IPF, RICS and Jones Lang Lasalle
- Boyd, T., and Irons, J. (2002). Valuation variance and negligence: The importance of reasonable care. Pacific Rim Property Research Journal, 8 (2), 107-126
- Carsberg, B. (2002) Property valuation: the Carsberg report. Royal Institution of Chartered Surveyors, London
- Crosby, N., Lavers, A. and Murdoh, J. (1998). Property valuation variation and the 'margin of error' in the U.K., *Journal of Property Research*, 16 (4), 305-330
- Druckman, D.and Bjork, R. A. (1994). *The untapped potential of training*. National Academy News Service; Oakland Tribune, 14 October
- Effiong, J. B. (2015). A Comparative Study of Valuation Variance and Accuracy between Nigeria and U.K., *International Letters of Social and Humanistic Sciences*, 57, 94-105 Engineering Statistics Handbook (2012). The National Institute of Standards and Technology (NSIT/SEMATECH)
- Fortunato L., Lettera S., Lazoi M., Corallo A. and Guidone G.P., (2011). A Methodology for Engineering Competencies Definition in the Aerospace Industry, *Systemics*, *Cybernetics and Informatics*, 9 (5), 12-17
  - iii) Frost, J. (2019). How To Interpret R-squared in Regression Analysis; Accessed 18/12/2019: https://statisticsbyjim.com/regression/interpret-r-squared-regression/
- Glen, S. (2019). 'Unstandardised coefficient' from StatisticsHowTo.com: Elementary Statistics for the rest of us! https://www. statisticshowto.com/unstandardized coefficient/
- Glover, T. (1985) Cutting Out the Educated Guesswork Accountancy Vol. 69, No. 1098
- Hager, D., and Lord, D. (1985). *The Property Market, Property Valuations and Property Performance Measurement*, London: Institute of Actuaries
- International Valuation Standards Council. (2012). The Role of the Professional Valuer in the Audit Process A Practical Guide for Professional Valuers; June, London: IVSC Kummerow, M. (2003). Theory for Real Estate Valuation: An Alternative Way to Teach Real Estate Price Estimation Methods. Paper presented at the Pacific Rim Real Estate Society Conference, Brisbane, 19 January to 22<sup>nd</sup>.
  - Mallinson, M. (1994) Commercial property valuations: report of the president's working party, The Royal Institution of Chartered Surveyors, London
- Mokrane, M. (2002) Valuations: Standards, Accuracy and Consistency IPD European Property Strategies Conference. (Accessed: May 2020).
- National Timber Tax (2019). Valuation Process; Accessed 18/12/2019 from: https://www.timbertax.org/getstarted/appraisal/process/
- Ogunba, O.A. (1997) A Study of Valuation and Pricing Methods in the Residential Property Market in Lagos Metropolis; An Unpublished M.Sc. Dissertation Submitted to the Department of Estate Management, Obafemi Awolowo University, Ile Ife.
- Ogunba, O.A. (2004) Implementation Hurdles in the Search for Rationality in Investment Valuation in Nigeria; *Journal of Property Research and Construction* (1) 14-28.
- Ogunba O.A. and Ajayi, C.A. (1998) An Assessment of the Accuracy of Valuations in the Residential Property Market of Lagos; *The Estate Surveyor and Valuer*; 21 (2): 19-23
- Ogunba, O. A., and Iroham, C. O. (2010). A search for an acceptable margin of valuation error: A case study of valuers and their clients in Nigeria, *Sri Lankan Journal* of Estate, 54-73
  - Parker, R. R. D. (1998). Valuation Accuracy An Australian Perspective; 4th Pacific Rim Real Estate Society Conference Perth, January 19-21

- Real Estate Institute of South Australia (2020).AppraisalsandValuations:TheDifferenceAccessed20/01/2020from:<a href="https://www.reisa.com.au/publicinfo/steps-in-">https://www.reisa.com.au/publicinfo/steps-in-</a>the-selling-process/appraisals-and-valuations-the-difference
- Royal Institution of Chartered Surveyors (2003). Appraisal and Valuation Standards. London: RICS. Guidance Note 5
  - Royal Institution of Chartered Surveyors (2010). Sustainability and commercial property valuation RICS guidance note, Global; 2<sup>nd</sup> Edition
  - Sheehan, J. M. (2011). Optimising Distressed Loan Books: Practical solutions for dealing with non-performing loans; Hampshire: Harriman House Limited
- Skitmore, M., Irons, J. and Armitage, L. (2007). Valuation accuracy and variation: a metaanalysis. In Proceedings 13th Pacific Rim Real Estate Society Conference, Fremantle, WA. (Accessed: January 2020).
- Stroever, C. (1897), Utility and Cost as Determinants of Value; *The Annals of the American Academy of Political and Social Science*, Vol. 10, November, 22-46
- Sullivan, L. (2017). Confidence intervals. https://sphweb.bumc.bu.edu/otlt/MPH-
  - Modules/BS/BS704\_Confidence\_Intervals/
- Tabachnick, B.G., & Fidell, L.S. (2007). Using Multivariate Statistics, Fifth Edition. Boston: Pearson Education, Inc.
- Taras, M. (2010)Back to basics: definitions and processes of assessments; PráxisEducativa, Ponta Grossa, 5(2), 123-130. (Accessed: July 2020)
- Tranter, P. and Warn, J. (2003). Education for flexibility in a changing world: a case study of competency development in university graduates. *Learning for an Unknown Future, Research and Development in Higher Education*, 26, 538-546
- Valuation-partners (2019). The Valuation Process; Online resources, accessed on 05/12/2019: http://valuationpartners.co.nz/valuation-process/
- Waters, M., Dunse, N. & Jones, C. (2018). The study of valuation variance in new global markets - Dubai, United Arab Emirates, 25th Annual European Real Estate Society Conference, ERES eres2018\_111, DOI: 10.15396/eres2018. (Accessed:11 January 2020)

# Appendix A

Respo ndent		Landed Property Non-Landed Property									
	Com p.Sco re	Adequacy of BoK				Averag e BoK	Com p.Sco re	Adequacy of BoK			Avera ge BoK
		LA N	BU D	CIF	EN A	DUIX		PE M	FU R	IN T	
1	5.00	5.00	5.00	4.0 0	5.00	4.75	.00	3.00	4.00	1.0 0	2.67
2	5.00	5.00	5.00	4.0 0	3.00	4.25	5.00	4.00	4.00	3.0 0	3.67
3	4.00	4.00	5.00	4.0 0	3.00	4.0	.00	3.00	4.00	2.0 0	3.0
4	5.00	5.00	5.00	5.0 0	4.00	4.75	.00	3.00	4.00	2.0 0	3.0
5	4.00	4.00	5.00	3.0 0	3.00	3.75	1.00	2.00	3.00	2.0 0	2.33
6	4.00	4.00	4.00	4.0 0	3.00	3.75	.00	3.00	4.00	3.0 0	3.33
7	5.00	4.00	5.00	4.0 0	3.00	4.0	2.00	3.00	4.00	2.0 0	3.0
8	2.00	3.00	3.00	3.0 0	2.00	2.75	.00	4.00	3.00	1.0 0	2.67
9	4.00	4.00	4.00	3.0 0	3.00	3.5	5.00	4.00	5.00	3.0 0	4.0
10	4.00	5.00	5.00	5.0 0	5.00	5.0	2.00	3.00	3.00	3.0 0	3.0
11	5.00	5.00	5.00	4.0 0	4.00	4.5	4.00	4.00	4.00	3.0 0	3.67
12	5.00	5.00	5.00	5.0 0	4.00	4.75	3.00	3.00	3.00	3.0 0	3.0
13	2.00	4.00	4.00	2.0 0	2.00	3.0	4.00	3.00	4.00	3.0 0	3.33
14	4.00	4.00	4.00	4.0 0	3.00	3.75	3.00	4.00	3.00	3.0 0	3.33
15	4.00	4.00	4.00	3.0 0	4.00	3.75	2.00	3.00	5.00	2.0 0	3.33
16	5.00	5.00	5.00	4.0 0	4.00	4.5	2.00	2.00	4.00	2.0 0	2.67
17	5.00	5.00	5.00	3.0 0	3.00	4.0	3.00	4.00	3.00	1.0 0	2.67
18	5.00	5.00	5.00	4.0 0	5.00	4.75	.00	4.00	3.00	2.0 0	3.0
19	3.00	3.00	3.00	3.0 0	2.00	2.75	2.00	3.00	5.00	3.0 0	3.67

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20	3.00	4.00	4.00	3.0	2.00	3.25	5.00	5.00	4.00	3.0	4.0
				0						0	
21	4.00	4.00	5.00	4.0	4.00	4.25	.00	3.00	4.00	2.0	3.0
				0						0	
22	4.00	5.00	4.00	5.0	5.00	4.75	.00	3.00	3.00	3.0	3.0
				0						0	

Source: Field Survey (2019)