

# THE INFLUENCE OF PROPERTY VALUATIONS ON REAL ESTATE INVESTMENT DECISIONS BY BUSINESSES IN UGANDA: A LITERATURE GAP

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## Abstract

This paper describes findings of the review of literature on the influence of property valuations on real estate investment decisions by businesses in Uganda. Scoping review of accessible literature was the research approach that was applied to gather information for the paper. Results of the study revealed: lack of availability of market data; use of outdated property valuation data; external clients' influence; unethical behaviour, negligence and professional misconduct of property valuers; lack of skills, poor education and training of property valuers; inadequate regulatory framework for the property valuation profession; and outdated property and land laws as main causes of inaccurate property valuations. Over and under-pricing of real estate, under and over-capitalization of real estate, inaccurate mortgage repayments, inaccurate property tax bills, under or over payment of building insurance premiums, wrong court decisions for real estate investments disputes, financial losses and bankruptcy, real estate market collapse and failure, and declining confidence in property valuers were identified as key consequences of inaccurate property valuations. Furthermore, the study identified: strengthening of property valuation curricula, registration of well qualified property valuers, improvement of regulatory framework for the property valuation profession, promoting accessibility of affordable new technology to improve accuracy of property valuations, reforms of outdated property and land laws, and encouragement of research to increase accuracy of property valuations as main interventions that can be implemented to improve accuracy of property valuations. Findings will support the development of a comprehensive property valuation model aimed at improving accuracy of property valuations in Uganda and elsewhere.

**Keywords:** Inaccurate Property Valuations, Causes, Consequences, Interventions, Uganda

## 1. INTRODUCTION

Businesses in Uganda and globally have raised concerns about the increasing trend of inaccurate property valuations (Abidoye & Chan, 2017; Nwosu, 2019). Rearich (2021) also agreed with this observation by noting that in Uganda, just like in other countries in the world, inaccurate property valuations were on the rise. This serious problem has raised concerns since inaccurate property valuations influenced businesses to make poor decisions for real estate investments, which lead to business financial losses and bankruptcy. This evidence is supported by the Bank of Uganda (2017) when it reported that the country was experiencing high numbers of non-performing loans, high default rates among borrowers and failure of commercial banks

in Uganda to sell and dispose collateral repossessed in the form of real estate due to inaccurate property valuations that were submitted. This state of affairs was unacceptable. In response to this problem, this study was undertaken by reviewing literature related to the inaccuracy of property valuations to specifically identify the causes and consequences of inaccurate property valuations in Uganda and globally. In addition, interventions that can be implemented in order to improve accuracy of valuations in Uganda and elsewhere were also investigated.

## 2. LITERATURE REVIEW

### 2.1 Property Valuation

Property valuation is defined as the process of estimating the value of a property for a specific purpose considering all relevant factors of the real estate market and features of the property on a specified date (Syagga, 1994; Crosby et al., 2019; IVS, 2022; RICS, 2022). Additionally, Abidoeye & Chan (2017) emphasized that property valuations must be conducted professionally and accurately since they have significant influence on the quality of real estate investment decisions made by businesses. Furthermore, Syagga (1994) indicated that property valuations were required by businesses for different purposes including: investment, mortgages, insurance, property tax, purchase and sale, expropriation, deceased estates, company assets, rental determinations, leases and servitudes. Nwosu (2019) added that property valuations played a significant role by influencing businesses globally in the processes of making critical decisions for their real estate investments including: sale and lease back agreements, owner-occupier or renting, sell now or hold-on, acquisitions, terminations, securing mortgages, and annual financial statements. More importantly, these decisions are normally binding for relatively long periods of time and involve huge sums of money to be paid out (Syagga, 1994). This can have enormous impact on businesses' finances and profitability. Therefore, based on this, it was not surprising when Abidoeye & Chan (2017) requested property valuers to produce high quality and accurate property valuation reports in order to support businesses make good and correct decisions for real estate investments.

Syagga (1994) reported that based on the records at the property registration offices in East Africa that includes Uganda, five main types of real estate investments are owned and transacted in the region, and are described next as follows:

- Residential real estate investments: these consisted of single-family homes and sectional title schemes.
- Commercial real estate investments: these comprised of offices and shops.
- Industrial real estate investments: these can be categorised into workshops and warehouses.
- Agricultural real estate investments: these refer to farms and were mostly located in the rural areas of the country.
- Special properties: these comprised of all other types of real estate investments with unique characteristics including: hotels, petrol filling stations, cinema and theatres.

In order to determine values of the abovementioned types of real estate investments, five main methods of property valuation are used in Uganda and globally, namely: investment (income approach), profits, replacement cost, direct capital comparison and residual methods (Douglas Scarret, 2008; Syagga, 1994; IVS, 2022; RICS, 2022). Firstly, the investment method is used to value commercial and industrial property whereby the rental income expected to be generated by the property is capitalized in order to calculate the value of the property (Appraisal Institute, 2020). Abidoeye et al. (2019) noted that accuracy of this method depends on the reliability of the variables that are applied in the method. Secondly, profits method of valuation is applied on certain types of property such as hotels, whereby the valuation focuses purely on the profit to be made by the property (Douglas Scarret, 2008). Geltner et al. (2014) added that poor business record keeping and falsification of cash flows can hinder accuracy of property values to be determined by this method. Thirdly, replacement cost method is a method of valuation used to value property with no income information such as public schools, prisons and hospitals (RICS, 2022). Its assumption is that an individual will not pay for a property more than it would cost to acquire. In this method, the cost to replace the property is calculated and used as its value (Abidoeye et al., 2019). Fourthly, direct capital comparison method is a method of valuation whereby the property to be valued is compared with prices of similar properties that have sold recently in the open market (RICS, 2022). Abidoeye et al. (2019) noted that this method is popular for the valuation of residential real estate investments since it is easy for businesses to obtain prices of similar and comparable properties in the property market. However, Abidoeye et al. (2019) observed that there is scarcity of reliable data sources for direct capital comparison method in some countries including Uganda, which affected accuracy of this method. Finally, the residual method of property valuation is used to value property with development potential; either undeveloped or partly developed and the main principle applied is to estimate the value of the property as if developed to its best advantage (Geltner et al., 2014). This method requires thorough and in-depth analysis of the proposed real estate investment in order to improve its accuracy (Douglas Scarret, 2008). However, differences of the real estate industries globally, have necessitated adjustment of existing property valuation methods to meet needs of local conditions and improve their accuracy and sustainability in their respective countries including Uganda (Kucharska-Stasiak & Olbińska, 2018; Sayce & Connellan, 2002). This study intends to solve this problem by developing a locally acceptable comprehensive property valuation model, which will promote accurate prediction of property values and eventually contribute towards success of businesses in Uganda through the support it will provide them in the making of profitable decisions for their real estate investments (Abidoeye, 2017:2).

Kiconco (2018) and Wesonga et al. (2022) observed that valuation in Uganda is performed by registered and licensed practitioners. The Surveyors Registration Act (1974) restricts valuation practice in Uganda to be performed by only members who are registered and licensed by the Surveyors Registration Board (SRB) of Uganda. According to the Surveyors Registration Act (1974), the Board is appointed and supervised by the Minister of Lands, Housing and Urban Development. It is also important to note that property valuers in Uganda belong to an umbrella body known as the Institution of Surveyors of Uganda (ISU). As of 31<sup>st</sup> July, 2023, there were

119 registered and licensed valuers in Uganda (SRB, 2023). Kiconco (2018) argued that with this seemingly good level of regulation one would expect minimal property valuation challenges in Uganda. However, the property valuation practice in Uganda has faced some challenges. By July, 2023, the SRB had processed on a yearly basis an average of six (6) disciplinary cases that affected some of its registered property valuers. This challenge indicates that there is still more need to strengthen the regulatory framework for the property valuation practice in Uganda.

## 2.2 Real Estate Investment

Real estate investment is a highly preferred form of investment by businesses due to some of the following reasons: real estate is a tangible asset, which offers better sense of security and control to investors; there is a greater expectation of steady cash flow stream from rental properties; real estate offers higher potential for capital value and rental growth over time; investing in real estate is a better hedge over inflation; and it is a long term inheritable investment (Geltner et al., 2014; Tsolacos & Andrew, 2021). However, Crosby et al. (2019) observed that real estate investments unlike other types of investments possessed several unique and complex characteristics. These characteristics have demanded well qualified property valuers in order to determine the values of real estate investments accurately (Abidoye & Chan, 2017). These unique real estate investment characteristics include:

- **A few well knowledgeable participants:**

Crosby et al. (2019) indicated that there are a few well knowledgeable participants in real estate sector, which made it easy for businesses to make wrong real estate investment decisions.

- **Complex and highly regulated:**

Tsolacos & Andrew (2021) reported that real estate sector is complex and as such it is highly regulated sector. Tsolacos & Andrew (2021) further argued that the high regulation of the real estate sector is what has given rise to several professionals that support the real estate investment processes including: property valuers, lawyers, engineers, quantity surveyors, land surveyors, town planners and architects.

- **Immobility**

Real estate market is locality determined and immobile (Crosby et al., 2019).

- **Durability**

Real estate is durable and its acquisition or investment is considered as long-term (Tsolacos & Andrew, 2021)

- **Capital intensive**

Real estate investment is capital intensive and its acquisition also involves high costs for technical consultancies and advisory fees, taxation and brokerage fees (Syagga, 1994).

- **Illiquidity**

Real estate is highly illiquid and requires so much time and resources in its disposal processes (Crosby et al., 2019).

### **3. RESEARCH METHODOLOGY**

#### **3.1 Research Approach**

The research approach adopted for this study is the scoping literature review method. Dijkers (2015) and Peterson et al. (2017) observed that the scoping literature review method is widely used for fast comparison of variables and critical terms of the review and their key literature sources. O'Brien et al. (2016) added that the scoping literature review method is used to comprehensively map evidence across a range of study designs in an area, in order to inform future research practice, programs and policy. Therefore, scoping reviews are useful for examining emerging evidence when it is still unclear what other more specific questions can be posed (Munn et al., 2018).

#### **3.2 Selection Criteria**

Main intention of the review of literature for this study was to identify available major themes across property valuation accuracy and inaccuracy and real estate investments body of knowledge in order to collect suitable data for the study. The search for relevant literature was not only limited to Uganda but across the globe. English language publications from different sources including: Google Scholar, Emerald Insight, Taylor and Francis, and ResearchGate were used for the study. A total of 67 publications comprising of journal and conference papers, books, and reports were identified through this literature research. Upon quick review, 41 (61%) were found relevant and adopted for the study. Others (39%) were rejected because they were considered irrelevant for the study. Out of the 61% publications that were adopted for the study 4 (10%) were from Uganda, while (90%) were from other parts of the world. The main themes and findings that emerged from this literature research are discussed in the next section of the paper.

### **4. FINDINGS AND DISCUSSION**

This section presents findings of the study and main themes that emerged from the review of relevant literature related to the improvement of property valuations accuracy in Uganda and elsewhere, namely: causes of inaccurate property valuations, consequences of inaccurate property valuations, and interventions that can be implemented to improve accuracy of property valuations.

#### **4.1 Causes of Inaccurate Property Valuations**

Table 1 below contains the main causes of inaccurate property valuations that were identified from the study. As noted from Table 1, results reveal that main causes of inaccurate property valuations are: lack of availability of market data; use of outdated property valuation data; external clients' influence; unethical behaviour, negligence and professional misconduct of

property valuers; lack of skills, poor education and training of property valuer; lack of regulatory framework for the property valuation profession; and outdated property and land laws. Based on these findings, all stakeholders responsible for property valuation in Uganda and elsewhere need to work together as a system in order to eradicate them so that accuracy of property valuations can be improved in the future.

#### 4.2 Consequences of Inaccurate Property Valuations

The main consequences of inaccurate property valuations in Uganda are given in Table 2 below and they include: Over and under-pricing of real estate, under and over-capitalization of real estate, inaccurate mortgage repayments, inaccurate property tax bills, under or over payment of building insurance premiums, wrong court decisions for real estate investments disputes, financial losses and bankruptcy, real estate market collapse and failure, and declining confidence in property valuers. When the consequences of inaccurate property valuations are analysed, it is noted that most of them are detrimental and can have negative impact on businesses including business financial losses and bankruptcy, and as such they should be avoided to safe guard businesses dealing with real estate investments. The last consequence on the list ‘declining confidence in property valuers’ is even more serious since it can reduce demand for property valuation services or even entirely kill property valuation profession.

**Table 1: Causes of Inaccurate Property Valuations**

	<b>Causes</b>	<b>Literature Sources</b>
1	Lack of availability of market data	Adegoke et al. (2016); Kiconco (2018); Eziukwu (2019); Eziukwu (2019)
2	Use of outdated property valuation data	Mutema (2016); Mwangi (2016); Kiconco (2018); Eziukwu (2019); Okoh et al. (2023); Cheloti & Mooya (2023)
3	External clients’ influence	Wasumbi (2014); Kiconco (2018); Eziukwu (2019); Wasumbi and Tarimo (2019)
4	Unethical behaviour, negligence and professional misconduct of property valuers	Kayonde & Omirin (2012); Wasumbi & Tarimo (2019); Cheloti & Mooya (2021)
5	Lack of skills, poor education and training of property valuers	Olusegun (2004); Idowu et al. (2016); Adegoke et al. (2016); Bank of Uganda (2017); Eziukwu (2019); Chikafalimani et al. (2020); Wesonga et al. (2022)
6	Inadequate regulatory framework for the property valuation profession	Bank of Uganda (2017); Abidoye & Chan (2018); Anim-Odame (2018); Cheloti & Mooya (2021); Asnakew & Amogne (2021)
7	Outdated property and land laws	Mwangi (2016); Mwesigye and Kahuma (2016); Kiconco (2018); Eziukwu (2019)



**Table 2: Consequences of Inaccurate Property Valuations**

	<b>Consequences</b>	<b>Literature Sources</b>
1	Over and under-pricing of real estate	Oyewale & Abiodun (2016)
2	Under and over-capitalization of real estate	Oyewale & Abiodun (2016)
3	Inaccurate calculations of rentals	Oyewale & Abiodun (2016)
4	Inaccurate calculations of mortgage repayments	Bank of Uganda (2017); Wasumbi and Tarimo (2019)
5	Inaccurate property tax bills	Idowu et al. (2016)
6	Under or over payment of building insurance premiums	Olusegun (2004)
7	Wrong court decisions for real estate investments disputes	Asnakew & Amogne (2021)
8	Financial losses and bankruptcy	Adegoke et al. (2016); Anim-Odame (2018)
9	Real estate market collapse and failure	Eziukwu (2019)
10	Declining confidence in property valuers	Ayodo (2012); Abidoye & Chan (2018); Wesonga et al. (2022)

### 4.3 Interventions to Improve Accuracy of Property Valuations

Table 3 below provides interventions that can be implemented in order to improve the accuracy of property valuations in Uganda and elsewhere. It is shown in Table 3 that they include: strengthening of property valuation curricula, registration of well qualified property valuers, improvement of regulatory framework for the property valuation profession, promoting accessibility of affordable new technology to improve accuracy of property valuations, reforms of outdated property and land laws, and encouragement of research to increase accuracy of property valuations as main interventions that can be implemented to improve accuracy of property valuations. If these interventions can be properly implemented by all stakeholders responsible for property valuation, they can eradicate completely the causes and consequences of inaccurate property valuations. The outcome will be the production of accurate property valuations that will eventually support businesses in Uganda and elsewhere to make good decisions for real estate investments. Later, this will make businesses dealing with real estate investments be successful and profitable. This business success will also contribute towards the economic development of the country.

**Table 3: Interventions to Improve Accuracy of Property Valuations**

	<b>Interventions</b>	<b>Literature Sources</b>
1	Strengthening of property valuation curricula	Mwangi (2016); Chikafalimani et al. (2020); Wesonga et al. (2022)
2	Registration of well qualified property valuers	Olusegun (2004); Mutema (2016); Mwangi (2016); Bank of Uganda (2017); Wesonga et al. (2022); Okoh et al. (2023)
3	Improvement of regulatory framework for the property valuation profession	Wasumbi (2014); Idowu et al. (2016); Bank of Uganda (2017); Asnakew & Amogne (2021); Wesonga et al. (2022)
4	Promoting accessibility of affordable new technology to improve accuracy of property valuations	Bank of Uganda (2017); Abidoye & Chan, (2018); Anim-Odame (2018); Wesonga et al. (2022)
5	Reforms of outdated property and land laws	Mutema (2016)
6	Encouragement of research to increase accuracy of property valuations	Mutema (2016); Wasumbi & Tarimo (2019)

## 5. CONCLUSION AND FURTHER RESEARCH

This paper has described in detail the literature and knowledge gap that exists in relation to the influence of property valuations on real estate investment decisions by businesses in Uganda. Scoping review was the research approach that was applied to collect data for the study. The study confirmed from the reviewed literature that property valuations significantly influence real estate investment decisions made by businesses. Unfortunately, it was also noted that inaccurate property valuations are on the increase in Uganda and elsewhere. Additionally, results revealed: lack of availability of market data; use of outdated property valuation data; external clients' influence; unethical behaviour, negligence and professional misconduct of property valuers; lack of skills, poor education and training of property valuers; inadequate regulatory framework for the property valuation profession; and outdated property and land laws as main causes of inaccurate property valuations in Uganda and elsewhere. The study also observed that: Over and under-pricing of real estate, under and over-capitalization of real estate, inaccurate mortgage repayments, inaccurate property tax bills, under or over payment of building insurance premiums, wrong court decisions for real estate investments disputes, financial losses and bankruptcy, real estate market collapse and failure, and declining confidence in property valuers were identified as key consequences of inaccurate property valuations. In response, the study identified: strengthening of property valuation curricula, registration of well qualified property valuers, improvement of regulatory framework for the property valuation profession, promoting accessibility of affordable new technology to improve accuracy of property valuations, reforms of outdated property and land laws, and encouragement of research to increase accuracy of property valuations as main interventions that can be implemented and be fitted in a locally acceptable property valuation model that can be adopted in order to improve accuracy of property valuations in Uganda. The study has also noted the need for smooth coordination of all relevant stakeholders in different sectors of the real estate industry in order to implement an effective and efficient system that will adequately improve property valuation in Uganda.

The study also discovered that no scientific study exists which provides a locally acceptable and designed property valuation model fully packed with interventions that can be implemented in Uganda, despite the availability of other literature on the causes and consequences of inaccurate property valuations and interventions that can be implemented to improve property valuations. In order to develop this locally acceptable property valuation model, all relevant stakeholders that are playing a role in the provision of property valuation services in Uganda need to be involved in the designing of the model for the country. These relevant stakeholders include: universities offering property valuation curricula, government, financial institutions, professional bodies and associations. The identified stakeholders need to get together and develop an effective and efficient locally acceptable model to improve property valuation in Uganda. The outcome from this property valuation model will be the production of accurate property valuations that will support businesses to make correct and good real estate investment decisions in Uganda. This will make the businesses successful and more profitable in the future. Eventually, this will make the contribution towards economic development and prosperity of Uganda mainly through poverty and unemployment eradication.



## References

1. Abidoeye, R.B. and Chan, A.P.C. (2017). Modelling property values in Nigeria using artificial neural network. *Journal of Property Research*, 34(1): 36-53.
2. Abidoeye, R.B. & Albert, P.C. (2018). Improving property valuation accuracy: a comparison of hedonic pricing model and artificial neural network. *Pacific Rim Property Research Journal*, 24(1): 71-83.
3. Abidoeye, R.B., Huang, W., Amidu, A.-R. and Javad, A.A. (2021). An updated survey of factors influencing property valuation accuracy in Australia. *Property Management*, 39(3): 343-361. Available: <https://doi.org/10.1108/PM-02-2020-0014> (Accessed 23 July 2023).
4. 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. Available: <https://doi.org/10.1108/JPIF-08-2014-0056> (Accessed 22 July 2023).
5. Anim-Odame, W.K. (2018). Property valuation in emerging economies: the hands-on experience in Ghana. In *Proceedings of 18<sup>th</sup> African Real Estate Society (AfRES) Conference held at Abeokuta, African Real Estate Society, Cape Town*, 11-15.
6. Appraisal Institute (2020). *The Appraisal of Real Estate (15<sup>th</sup> ed.)*. Chicago, American Institute of Real Estate Appraisers.
7. Asnakew, M.B. and Amogne, M.K. (2021). Valuation inaccuracy, approaches, basis and procedures for judgment execution in Ethiopia. *Property Management*, 39(5): 618-635. Available: <https://doi.org/10.1108/PM-11-2020-0080> (Accessed 28 July 2023).
8. Awuah, K.G.B. (2016). Property valuation in Ghana. *Land Journal*, 22.
9. Ayodo, H. (2012). The art of valuation. *The Standard E-Paper*, December 6 Issue. Available: <https://www.standardmedia.co.ke/article/2000072229/the-art-of-valuation> (Accessed 28 July 2023).
10. Bank of Uganda (BOU). (2017). *Valuation of land in Uganda: Issues and Perspectives*. Kampala, BOU.
11. Cheloti, I., & Mooya, M. (2021). Valuation problems in developing countries: A new Perspective. *Land*, 10(1352): 1–20. Available: <https://doi.org/10.3390/land10121352> (Accessed 23 July 2023).
12. Cheloti, I., & Mooya, M. (2023). Property valuation problems and market context – evidence from Kenya. *Journal of Property Research*, 40(1): 76-100.
13. Chikafalimani, S.H.P., Kibwami, N. & Moyo, S. (2020). A Critical Review of Quality Assurance Practices for Land Economics, Construction Management and Quantity Surveying Education at Makerere University in Uganda. *Journal of critical reviews*, 7(15): 2167 – 2174.
14. Crosby, N., Hutchison, N., Lusht, K., & Yu, S.M. (2019). Valuations and their importance for real estate investments. In B. D. MacGregor *et al.* (Eds.), *Routledge Companion to Real Estate Investment*, 143-171, Routledge.
15. Dijkers, M. (2015). *What is a Scoping Review? (2<sup>nd</sup> ed.)*. Rehabilitation Research and Practice. 1-8.
16. Douglas Scarret (2008). *Property Valuation: The Five Methods*. Routledge.
17. Eziukwu, N.A. (2019). Valuation Inaccuracy: Implication on Commercial Property Investment Performance in Akure, Nigeria. *Journal of African Real Estate Research*, 4(1): 92–107. Available: <https://doi.org/10.15641/jarer.v0i0.712> (Accessed 28 July 2023).
18. Geltner, Miller, Clayton, Eichholtz (2014). *Commercial Real Estate Analysis and Investments (3<sup>rd</sup> ed.)*. Mbition LLC.
19. Idowu, A.M., Kamarudin, N., Achu, K., & Solomon, I. A. (2016). A Review of Valuation Impact on Property

- Tax. *Sains Humanika*, 8: 4-3. Available: <https://doi.org/10.11113/sh.v8n4-3.1077> (Accessed 23 July 2023).
20. International Valuation Standards Council (IVSC). (2022). *International Valuation Standards (IVS)*. IVSC.
  21. Kayode Babawale, G. and Omirin, M. (2012). An assessment of the relative impact of factors influencing inaccuracy in valuation. *International Journal of Housing Markets and Analysis*, 5(2): 145-160. Available: <https://doi.org/10.1108/17538271211225904> (Accessed 25 July 2023).
  22. Kiconco, S.M. (2018). A review of the valuation profession in Uganda. *International Journal of Scientific and Research Publications*, 8(10): 131-137.
  23. Knight Frank. (2021). *Kampala market update H1 2021*. January-June issue, 1–8. Available: <https://www.knightfrank.com/research/report-library/h1-2021-kampala-market-performance-review-h1-2021-8320.aspx> (Accessed 23 July 2023).
  25. Kucharska-Stasiak E., Olbińska K. (2018). Reflecting Sustainability in Property Valuation – Defining the Problem. *Real Estate Management and Valuation*, 26(2).
  26. Mooya, M.M. (2015). The education and professional practice of valuers in South Africa: A critical review. *Property Management*.
  27. Munn, Z., Peters, M. D., Stern, C., Tufanaru, C., McArthur, A., & Aromataris, E. (2018). Systematic review or scoping review? Guidance for authors when choosing between a systematic or scoping review approach. *BMC medical research methodology*, 18: 1-7.
  28. Mutema, M. (2016). *Property Valuation Challenges in Africa: The Case of Selected African Countries*. In *Proceedings of the 17<sup>th</sup> Annual World Bank Conference on Land Policy and Poverty*, Washington, DC, USA, 14–17 March 2016.
  29. Mwasumbi, A.N. (2014). External Influence on Valuation: Looking for Evidence from Tanzania. *JLAEA*, 2(2): July, 2014.
  30. Mwasumbi, A.N. & Tarimo, D.I. (2019). The Use of Less Relevant Heuristics in Mortgage Valuation in Tanzania. *Journal of African Real Estate Research*, 4(1): 1-22.
  31. Mwesigye, A. & Kahuma, E. (2016). Valuation practices in Uganda: Challenges and opportunities for the profession. *Journal of Facilities Management*, 14(2): 136-149.
  32. Nwosu, A.E. (2019). Valuation Inaccuracy: Implication on Commercial Property Investment Performance in Akure, Nigeria. *Journal of African Real Estate Research*, 4(1): 92-107.
  33. O'Brien, K.K., Colquhoun, H., Levac, D. et al. (2016). Advancing scoping study methodology: a web-based survey and consultation of perceptions on terminology, definition and methodological steps. *BMC Health Services Research*, 16: 305.
  34. Ogunba, O.A. (2004). The demand for accuracy in valuations: The case of Nigeria. In *Proceedings of the International Symposium on Globalization and Construction*, Thailand, 679-688.
  35. Okoh, S.O., Kemiki, O.A., Ajayi, M.T. and Ankeli (2023). Assessment of valuers' heuristics application in valuation practice in selected states in Northern Nigeria. *Sub-Sahara African Academic Research Publications*, [cambridgenigeriapub.com](http://cambridgenigeriapub.com).
  36. Oyewale, J.O., & Abiodun K.S. (2016). Forms of Mortgage Valuation Inaccuracies and Implication on Real Estate Development Finance in Nigeria”, *Covenant Journal of Research in the Built Environment*, 4(1).
  37. Available: <https://journals.covenantuniversity.edu.ng/index.php/cjrbe/article/view/224> (Accessed 20 July 2023).
  38. Peterson, J., Pearce, P. F., Ferguson, L. A., & Langford, C. A. (2017). Understanding scoping reviews:

- Definition, purpose, and process. *Journal of the American Association of Nurse Practitioners*, 29(1): 12-16.
39. Rearich, J. (2021). Garbage In, Garbage Out: Implications for Data Quality for Valuation Models. *Journal of Property Tax Assessments and Administration*, 18 (1): 5-28.
  40. Royal Institution of Chartered Surveyors (RICS). (2022). RICS valuation global standards: Red Book 2022. RICS Books.
  41. Sayce, S. and Connellan, O. (2002). From existing use to value in use: time for a paradigm shift? *Property Management*, 20(4): 228-251. Available: <https://doi.org/10.1108/02637470210444268>
  42. Syagga, P.M. (1994). *Real Estate Valuation Handbook with Special Reference to Kenya*. Nairobi University Press.
  43. Wesonga, E., Mumbi, M., Nkonge, J., & Onencan, A. (2022). Evaluation of the Education and Training of Valuation Surveyors in Uganda. *Journal of African Real Estate Research*, 7(1): 78-94.