

Research Application Summary

Perception of valuers on adopting automated valuation models: A case of Malawi

Namanja Namangale, D. & Chimalizeni, E.

Department of Land Economy and Quantity Surveying, University of Malawi, The Polytechnic,
Blantyre, Malawi

Corresponding author: dnamangale@poly.ac.mw, chimaesther22@gmail.com

Abstract

Property valuation involves physical inspection of the properties to assess their values. Despite the process being tedious especially when valuing for rating purposes, it seems Malawian valuation professionals are not ready to adopt the considerably easy and cheap means of property valuation, the Automated Valuation Models (AVMs). The approach attracted controversy when it was piloted in the country. Thus, the aim of this study was to investigate property valuers' perception on the adoption of automated valuation models in rating valuation against the use of traditional methods. Despite most professions adopting technological developments, property professionals especially in developing countries including Malawi are showing signs of contentment with the status quo although AVM has been existing for a couple of decades. In-depth structured interview guides were used to solicit opinions from key informants. The general attitude towards automated valuation models was mixed. On one hand, a certain percentage of the participants gave the approach the benefit of doubt for future incorporation into the profession if modified to suit the local environment. On the other hand, the models were considered as posing threat to the valuation profession since anyone may be deemed qualified to do property valuation. It is concluded that the models will never replace traditional methods of valuation, hence suggestions to incorporate automated valuation models as a supplement to traditional methods of valuation so that the former is used as a verification and auditing tool for the latter.

Key words: Automated valuation models, profession, traditional methods, valuation

Résumé

L'évaluation des biens immobiliers implique une inspection physique des biens pour en évaluer la valeur. Bien que le processus soit fastidieux, notamment pour l'évaluation à des fins de classement, il semble que les professionnels auditeurs malawiens ne soient pas prêts à adopter les modèles d'évaluation automatisés (MEA), un moyen d'évaluation des biens immobiliers considérablement facile et moins cher. Cette approche a suscité une controverse lorsqu'elle a été mise à l'essai dans le pays. Ainsi, l'objectif de cette étude était d'étudier la perception des auditeurs immobiliers sur l'adoption des modèles d'évaluation automatisés dans l'évaluation des biens par rapport à l'utilisation des méthodes traditionnelles. Bien que la plupart des professions adoptent les développements technologiques, les professionnels de l'immobilier, en particulier dans les pays en développement, y compris le Malawi, montrent des signes de satisfaction par rapport au statu quo, bien que les MEA existent depuis une

vingtaine d'années. Des guides d'entretiens structurés approfondis ont été utilisés pour recueillir les avis des informateurs clés. L'attitude générale à l'égard des modèles d'évaluation automatisés était mitigée. D'une part, un certain pourcentage d'enquêtés a accordé à l'approche le bénéfice du doute pour une future incorporation dans la profession si elle est modifiée pour l'adapter à l'environnement local. D'autre part, les modèles ont été considérés comme une menace pour la profession d'évaluateur, car toute personne peut être considérée comme qualifiée pour évaluer des biens immobiliers. Il en ressort que les modèles ne remplaceront jamais les méthodes traditionnelles d'évaluation, d'où les suggestions d'incorporer des modèles d'évaluation automatisés en complément des méthodes traditionnelles d'évaluation afin qu'elles soient utilisées comme un outil de vérification et d'audit pour ces dernières.

Mots clés : Modèles d'évaluation automatisés, profession, méthodes traditionnelles, évaluation

Introduction

Despite property valuation being in existence for decades, literature shows that the practice is mainly carried out using traditional methods, the main one being the comparison approach whereby the subject property is compared to similar, recent and within the same vicinity property and adjustments made to arrive at the probable value of the subject property. Other major approaches include; income, cost and residual. These are referred to as traditional methods of valuation. Zrobek (2013) classify these approaches as being more expensive, time consuming and subject to errors. However, an advanced method to mass valuation for rating purposes called automated valuation exists on the market which has the competitive advantage of speed, accuracy, accountability and transparency over the traditional methods (Downie, 2007). Nevertheless, the approach is facing challenges in Malawi since it is being viewed as a technical development and not necessarily an advanced approach to property valuation. Elsewhere i.e., South Africa, Europe including UK and Denmark, Australia and North and Central America, AVMs are used to assess property values for taxation and mortgage purposes since these countries are moving from the traditional methods (RICS, 2013).

However, there is paucity in the literature on the adoption of AVM for rating purposes in most developing countries including Malawi and no studies have been carried out to contextualize the phenomenon in the country. Thus, this study was primarily conducted to investigate valuers' perception in the adoption of AVMs in the valuation profession in Malawi and establish if AVM could take over from traditional methods in the long run.

Valuation services and the valuation profession. Valuation services are needed for different purposes by different institutions i.e., local governments, banks and individuals among others (RICS, 2013). Essentially, property valuation assesses what an interest would realise if it was disposed of on an open market or what value an interest has to the property occupant (Gilbertson and Preston, 2005). This means, the comprehensiveness and level of information detail required by the client influences the range of valuation services to be rendered (Gilbertson and Preston, 2005; Robson and Downie, 2007). These valuation ranges are categorised as gold standard, drive by and broker price opinions and desktop (Robson and Downie, 2007) and the quality of the valuation service can help in making efficient, accurate and convincing decision (Gatheru, 2015) hence need for understanding of the dynamics driving the marketplace by the valuers to provide best services (Gilbertson and Preston, 2005).

Automated valuation models. AVM is a mathematically programmed computer software that estimates market values through analyzing the location, property market conditions and property characteristics

against the information in the database (IAAO, 2011). AVMs are penetrating the property market throughout the world (RICS, 2013). Blackledge (2009) argues that information technology and the internet have made tremendous changes to the valuation profession by making valuation process to be undertaken more easily and eliminating subjectivity and improving accuracy within the valuation profession since these advancements do not depend on the valuer's skills and experience. AVM was developed to allow for a rapid assessment of a property value since the user is only required to input the required information of the subject property and the system does the rest to come up with the value of the subject property. This has been an established feature in the property markets of United States, Germany and Canada and has been used in the assessment of properties for different purposes such as taxation and mortgage (Downie and Robson; 2007; Boshoff and De Kock, 2013; RICS, 2013).

Literature indicates that the main challenge to AVM is the availability of market data. Where market data is insufficient, AVM usage becomes a challenge. However, a well maintained property transactions database creates a conducive environment for AVM (Bidanset, 2014). Boshoff and De Kock (2013) argue that the source of data for AVM is real market value valuations, thus the approach employs reliable databases making AVM very reliable. Boshoff and De Kock (2013) further argue that the general applicability of AVM varies greatly from one country to another and Southern African countries are relatively suspicious on the adoption of AVM despite being consistent, transparent, manageable, time and cost saving and able to combat fraud and bias.

Benefits of AVM over traditional methods. Debate on the benefits of AVM over traditional methods is still on-going. However, AVM is rated highly in terms of speed and cost-saving (Tretton, 2007) over traditional methods. On the other hand, traditional methods are also a favourite due to the physical inspection of the property which reveals subject property's overall condition which AVM cannot reveal (IAAO, 2003; Rossini, 2008). The absence of property inspection in AVM has subjected it to the debate as to whether it is a suitable replacement for traditional methods and can be wholly adopted in the valuation profession or it should be used as a supplement to the traditional methods (Boshoff and De Kock, 2013). Gilbertson and Preston (2005) posit that despite AVM being speedy and cheaper compared to traditional methods, it remains to be seen if it will not divert the meaning of valuation process due to its statistical analyses. Mooya (2011) adds that AVM is threatening the survival of the valuation profession. Despite challenges to meet standardized valuations with traditional methods especially in developing economies as evidenced from objections and appeals in valuations for compensation and rating valuations respectively (Mooya, 2011; Gatheru, 2015), Trotten (2007) pointed out that AVM adoption does not bring immediate solutions to those challenges hence need for thorough researching on the technological development on how it can be incorporated into the valuation profession.

Implications of AVM to the valuation profession. Scholars hold different views on the implications of AVM to the valuation profession. Whilst Blackledge (2009) believes that valuers may be replaced with the technology hence losing their jobs, Downie *et al.* (2007) argue that despite AVM taking a certain section of the valuation process, valuers will still be relevant in the interpretation, checking and evaluating of the AVM outputs. Ibid add that since there is a shortage of professionals in the developing world and many of those available are in their retirement age, therefore, AVM can alleviate that problem. Furthermore, it is apparent that the system still needs human inputting of data which means AVM still needs human personnel for their efficient running. Indeed Gilbertson and Preston (2005) and Tretton (2007) have pointed out that AVMs reliability rests on the availability of accurate property market data to which in the absence of the same, it becomes difficult. In all these instances, AVM requires professional judgement which makes valuers vital in the process.

AVM situation in Malawi. Literature on AVM situation in Malawi is almost unavailable, hence this review relied on information from other countries. Malawi tasted AVM between 2013-2014 when it was first piloted in one of the city councils to undertake mass valuation for rating purposes. This registered a number of successes since the valuation process was fast tracked and costs saved. Furthermore, the number of properties assessed sprang from 10,000 to 40,000 and revenue collection rose tremendously by over 279% (Etter, 2014). Despite such landmarks, practicing valuation professionals were discontented with incorporation of AVM into the valuation profession in the country.

Methodology

The study was exploratory in nature hence employed qualitative approaches. The approach aimed at establishing the subjects' commonality of thoughts on the concept of adopting AVM in property valuation for rating purposes in Malawi. The study used non-probability sampling technique whereby the researchers purposively sampled out selected registered valuers as research participants to provide insights on the subject matter and not the population. These were deemed relevant and knowledgeable to meet the purpose of the study (Patton, 2002; Smith *et al.*, 2009). A total of nineteen in-depth interviews with city council officials and valuation professionals were conducted. The sampled participants met Creswell's (2013) recommendation that a sample size of 5 to 25 that is knowledgeable enough on the issue being explored is appropriate. The inclusion of city officials was meant to allow for data triangulation during analysis. Semi-structured interview guides were developed to aid the data collection. Specifically, we aimed to explore the valuers' understanding of AVM and what was their perception towards the adoption of the system in the valuation profession. The specific themes that were explored were: how the valuers thought AVM would impact on the valuation profession, how credible and accurate AVM is compared to traditional methods, how they viewed the incorporation of AVM into the valuation profession and if AVM was posing any threat on the job market of the professional valuer.

Data collected were analysed using content analysis. This involved transcribing the interview contents and coding them for the identification of frequently emerging themes. The themes generated were generalized, interpreted and analyst triangulated to check for consistency. Emerging themes were analysed inductively (Tranfield *et al.*, 2005; Scuille, 2008; Creswell, 2013).

In terms of ethical consideration, Respondents were told of the purpose of the study and their anonymity was assured (no disclosure of the identity). The information provided was kept with highest confidentiality and was used for the purposes of this study only. During data analysis, the researcher(s) presented all facts as they were collected. There was no falsification or misrepresentation of the findings or inclusion of any misleading information.

Lack of prior studies at the local level in the subject area was the main setback in the literature review and data collection process. In addition, the perception of the valuation clients on AVM was not explored.

Results and discussion

Knowledge and experience of AVMs. The study found that only 77.8% of the professional valuers had knowledge of AVM. This contrasted with about 20% of the valuers in the UK who did not have knowledge of AVM by the time of the study. It was further revealed that less than 15% of the valuers

had practical experience of AVM. This can be attributed to the fact that the technology is relatively recent in the country since it was only introduced in Malawi in 2013. For most of the professionals, AVM knowledge was just theoretical.

Benefits of AVM on performance and accuracy over traditional methods. Asked to explain how beneficial valuers thought AVM was compared to traditional methods, it was revealed that AVM was rated differently by different valuers. This was most likely influenced by valuer's understanding and knowledge about the AVM. The reported benefits ranged from speed, data availability, cost effectiveness, accuracy and creation of job opportunities. However, speed was ranked as the highest benefit offered by AVM. Asked further to state the level of accuracy between AVM and traditional methods as independent approaches to valuation, it was pointed out that "... AVM as an independent approach has low accuracy level since it has many short-comings". "...and AVM cannot replace the level of skill and experience of the valuer...". On the other hand, "...if AVM was adopted as a supplement to the traditional methods of valuation we have been using all along, then the performance and accuracy level would be very high, but AVM on its own, its performance and level of accuracy is less than 40% whereas the level of accuracy of the traditional methods is between 55-80%". Therefore, "... if anything, AVM should be adopted as a supportive tool to traditional methods". This articulation agrees with Allen (2013) who found that a lot of disagreements exist on the accuracy level of AVM. However, Rossini (2006) found that market data statistical analysis ensures AVM's higher level of accuracy. However, according to Mooya (2011), these responses could have been influenced by the fear of being replaced by AVM.

Implications of AVM to the valuation profession once adopted. Asked to explain the implications of AVM to the valuation profession once adopted in the country, the study revealed different views. Majority of the respondents pointed out that "...AVM is a new concept in the country, therefore, this will inevitably have its own effects to the valuation profession up until when the practitioners have a better understanding of it..." [...] However "...AVM effects cannot distort valuation process if it can be adopted as a supportive tool to the traditional methods". This concurs with studies by Downie and Robson (2007), and (Catt 2007), Rossini and Kershaw (2008) who found that even in countries where AVM is established, professionals are suspicious hence cannot fully trust the system. Blackledge (2009) and IAAO (2003) also highlighted that valuation methods supplement one another hence AVM can be a supplement to traditional methods.

On one hand, some valuers cautioned that "... AVM does not conform to the valuation standards and should not be adopted at all because it will have implications on the valuation principles...". This agrees with Rossini (2008) who observed that AVM is likely to distort the meaning of valuation process since it does not respect an important aspect of property inspection. On the other hand, other valuers were of the view that "...if AVM is to be adopted, then it needs to be modified to conform with the local situation". This agrees with Donovan (2015) AVM auditing study in which two AVM major vendors in the UK Hometrack and Rightmove conceded that AVM's accuracy varies with situations hence cautioned the condition in which they can appropriately and effectively be used.

Conclusion and recommendations

Despite AVM being considerably recent in the country's valuation sector, many valuers are aware of its existence. Although such is the case, it is apparent that valuation professionals are not ready to welcome AVM in the valuation profession as a stand-alone approach to property valuation. Although AVM is associated with a number of benefits to the valuation profession i.e., speed, cost effectiveness, transparent and many others, valuers are not convinced that AVMs are a game changer to the valuation

profession as valuers are suspicious of AVMs credibility in as far as property valuation is concerned due to absence of the inspection stage which is considered crucial in the valuation process.

In spite of literature rating AVM highly in accuracy performance, the valuers doubted the accuracy ratio of AVM to traditional methods. Therefore, the valuation professions are more interested in the incorporation of AVM as a supplementary tool to property valuation other than adopting it as a stand-alone approach. This is due to the valuation professionals' fear AVM will displace qualified valuers' from the job market since anybody could easily use AVM. Although AVMs are facing resistance from the valuation professionals even where they are established, they are worth being tried and tested in accordance with the current economic and market conditions.

Valuation is a profession that is regulated by the legal statutes. Therefore, government through the Ministry of Lands should engage the professional bodies in Malawi to openly deliberate on how such technological innovations could be incorporated into the profession. Their pros and cons should be extensively debated and a way forward mapped since these developments can't be wished away. AVM will have its own implications to a certain extent but these implications will not distort the concept of valuation. Therefore, there is need to find out the best mode of AVM suited to the the local environment in Malawi.

Acknowledgement

This paper is a contribution to the 6th African Higher Education Week and RUFORUM Biennial Conference held in October 2018 in Nairobi, Kenya

References

- Allen, S. 2013. What's in your AVM? *Mortgage Banking* 73 (6): 92-92.
- Bidanset, E.A. 2014. Moving automated models out of the box: The global geography of AVM use. *magazine of the International Association of Assessing Officers* 12.
- Blackledge, M. 2009. *Introducing property valuation*. New York: Routledge.
- Boshoff, D. and De Kock, L. 2013. Investigating the use of Automated Valuation Models (AVMs) in the South African commercial property market. *Acta Structilia* 20(1): 1-21.
- Catt, D. 2007. Not just a valuation tool, *Mortgage Finance Gazette* [Online]: Available at: <http://www.mortgagefinancegazette.com/guide-to-avms/not-just-a-valuation-tool/> [Accessed
- Creswell, J.W. 2009. *Qualitative Inquiry & Research Design: Approaches*. 3rd. Ed. California, Sage.
- Downie, G. R. 2007. *Automated Valuation Models: An international perspective; the council of mortgage lenders*, CML. London: <http://www.cml.org.uk/cml/filegrab/1AutomatedValuationModelsHB.Pdf?ref=5550>.
- Etter, R. 2014. The role of the valuer in Malawi, Mzuzu experience: system creating impact. available from: [www.revenueddevelopment.org. Mzuzu](http://www.revenueddevelopment.org/Mzuzu).
- Gatheru, S. 2015. Application of geographic information system in property valuation. *International Journal of Scientific and Technology Research* 4: 1-11
- Hyperlink. "http://www.emeraldinsight.com/author/Gilbertson%2C+Barry" Gilbertson, B. and Hyperlink. "http://www.emeraldinsight.com/author/Preston%2C+Duncan. Preston, D. 2005. A vision for valuation. *Journal of Property Investment & Finance* 23 (2): 123-140 HYPERLINK "<https://doi.org/10.1108/14635780510699998>" <https://doi.org/10.1108/14635780510699998>
- International Association of Assessing Officers (IAAO). 2003. *Standard on Automated Valuation Models (AVMs)*. Chicago: International Association of Assessing Officers.
- Mooya, M. 2011. Of mice and men: *Automated Valuation Models and the Valuation Profession*. *Urban*

- Studies* 48 (11): 2266-2281.
- Patton, M. 2002. *Qualitative Research and Evaluation Methods*. s.l.:Sage Publications.
- Robson, G. and Downie, M.L. 2009. Integrating automated valuation models with valuation services to meet the needs of UK borrowers, lenders and valuers. London: RICS Research.
- Rossini, P. and Kershaw, P. 2008. Automated valuation model accuracy: Some empirical testing. Kuala Lumpur, 14th Pacific Rim Real Estate Society Conference Istana Hotel [Online] Available at: http://www.prres.net/papers/Rossini_Automated_Valuation_Model_Accuracy_Some_Empirical_Testing.pdf
- Rossini, P.K. 2006. Can a hybrid automated valuation model outperform individually assessed capital and site values? Miami, Florida: Diss. Pacific Rim Real Estate Society.
- Royal Institution of Chartered Surveyors (RICS). 2013. Automated valuation models (AVMs). RICS Information paper. London: Royal Institution of Chartered Surveyors.
- Smith, J.A., Flowers, P. and Larkin, M. 2009. *Interpretative Phenomenological Analysis: Theory, Method and Research*. London, Sage Publications.
- Tranfield, D., Rowe, A., Smart, P. K., Levene, R., Deasley, P. and Corley, J. 2005. Coordinating for service delivery in public-private partnership and private finance initiative construction projects: Early findings from an exploratory study. *Journal of Engineering Manufacture* 219 (1):165-175.
- Tretton, D., 2007. Where is the world of property valuation for taxation purposes going?. *Journal of Property Investment and Finance* 25 (5): 482-514.
- Zrobek, M.G. 2013. *Modern challenges facing the valuation profession*. Allied University, Poland.