RENTAL VALUE DETERMINATION OF TEMPORARY EASEMENT VALUATION FOR CONSTRUCTION SITE.

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A thesis submitted in fulfilment of the requirement for the award of the Degree of Master of Science in Real Estate and Facilities Management

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DEDICATION

This thesis is dedicated to:

My beloved Family

Thank you for your support and encouragement throughout this research.

My great lecturers especially my supervisor, who guided me to finish this research

successfully.

... iny heart, ... ior everything.

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ABSTRACT

In Malaysia, the easement valuation is less awareness part of real estate valuation. Easement valuation has become a big problem because there are only has vague compensation guidelines in literature and there are lack of guidelines and less discussion in Malaysia Valuation Standard (MVS) year 2019. The main focus of the valuation field in Malaysia is on the general real estate valuation such as residential, commercial, and agricultural land valuation. The real estate valuation system in Malaysia still imperfect as there are many things should be improved in the future especially for easement valuation. Thus, first objective in this research to identify the factors that influence rental value determination of temporary easement valuation for construction site, second objective is to assess challenges for the valuer in rental value determination of temporary easement for construction site and the third objective is to evaluate the role of mediators on the influential factors to rental value determination of temporary easement valuation. Quantitative approach was adopted in this study by conducting questionnaire with 38 participants from private and government sectors by using simple random sampling. Descriptive analysis including frequency analysis and mediation analysis was used to interpret the data. The findings showed that there is no mediation between location factor and rental value determination of temporary easement. The findings also showed that challenges of valuer fully mediate the relationship between others factors (physical attributes, condition of easement, economic and market condition) and rental value determination of temporary easement valuation. This research has resulted onto the landowner as the easement can help to protect the landowner's rights on their own property.



ABSTRAK

Penilaian ismen adalah satu penilaian harta tanah yang penting di Malaysia. Kekurangan dalam perbincangan garis panduan maupun ketetapan dalam Malaysia Valuation Standard terhadap penilaian ismen telah menjadikan satu isu dalam penilaian harta tanah. Bidang penilaian di Malaysia lebih mengutamakan pada penilaian harta tanah umum seperti kedianman, perdanganan dan pertanian. Terdapat sedikit kelemahan dalam pelaksanaan pernilaian harta tanah di Malaysia yang melibatkan penilaian ismen. Objektif pertama dalam kajian ini adalah untuk mengenalpasti faktor-faktor yang mempengaruhi kadar semasa terhadap penilaian ismen sementara bagi maksud laluan pembinaan, objektif kedua adalah cabaran kepada penilai dalam menentukan nilai sewa ismen sementara dan objektif ketiga menilai peranan perantara dalam mengesani faktor-faktor yang mempengaruhi nilaian sewa ismen sementara. Pendekatan kuantitatif digunapakai dalam kajian ini dengan mengedarkan soal selidik kepada penilai di sektor swasta dan kerajaan dengan menggunakan persampelan rawak mudah. Analisis deskriptif termasuk analisis kekerapan dan analisis pengantaraan telah digunakan untuk menganalisis data. Hasil kajian menunjukkan bahawa tiada hubungan pengantara antara faktor lokasi dan penentuan nilai sewa bagi penilaian ismen sementara. Keputusan juga menunjukkan bahawa cabaran penilai menjadi pengantara sepenuhnya antara faktor lain (keadaan bangunan, keadaan ismen, keadaan ekonomi dan pasaran) dan penentuan nilai sewa bagi penilaian ismen sementara. Dapatan kajian ini dapat memberi manfaat kepada pemilik tanah kerana ia dapat melindungi hakmilik mereka ke atas harta tanah sendiri.



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LIST OF SYMBOLS AND ABBREVIATIONS

SPSS

Statistical Package for Social Science

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CHAPTER 1

INTRODUCTION

1.1 Research Background

In recent years, the easement valuation is less awareness part of real estate valuation. The Malaysia Torrens System recognized right which one landowner could acquire over the land of other, easement being one of the rights conferred over neighboring land. Even the public or private sector may need the right of the easement to use another people land for their specific purposes. When another person or company use the land without permission, the landowner had the right to acquire adequate compensation or payment. Therefore, the easement valuation will help the landowner to evaluate the amount of compensation without losing their rights (Salleh, 1989).

Easement is defined in section 282 (1) of the National Land Code as 'any right granted by one proprietor to another, in his capacity as such and for the beneficial enjoyment of his land'. Section 282 (3) further explains that the land and the benefit of which the easement is granted is called the 'dominant land', and the land of the proprietor by whom is granted is called the 'servient land' (*National Land Code (ACT 56 OF 1965) VER 1.0*, n.d.).

In Malaysia, the construction industry is one of the primary industries of the national economy. During the era of growing economic development in Malaysia, its contribution to Gross Domestic Product (GDP) is between 3% and 6% per year. While



the function of an easement is helping to sustain and encourage a systemized and progressive development of residential and industrial land usage. In the current century, easements are an important part of the property development because of the diversity of rights they could represent and because of the status of the right. Easements are unlike the restrictive covenant. It is a proprietary creature; once created, it will confer an enduring and enforceable right upon the holder against the rest of the world (Hepburn, 1998).

This research is focused on the temporary construction easement. The term of temporary construction is very short depends on the period of construction project normally is two years. The valuer must consider whether the existence of a temporary construction easement will restrict the property owner from using the unencumbered portion of the land for its highest and best use during the easement's term.

Moreover, rental value determination of temporary easement valuation for construction site will be discussed in this study. Chris & Sc, (2007) describe rent is considered to be construed as a monthly payment made to the owner of the property in exchange for the use of a building. Under Law of Property Act 1925, a lease should be gives to the developer (tenant) the right to possess the land specified in the lease. A lease should contain very specific terms about the duration of the lease which the rights and responsibilities of the landowner and tenant is valid. Land tenure includes a certain right of control over the lease term. An easement gives a limited right to use part of the landowner's property. It does not transfer legal possession to the land to the tenant. The tenant may get the right to use the land for wind turbines and a right of way to access the turbines. In addition, the landlord may also enter a wind easement, agreeing not to build anything that might block the wind to the project. Leases and easements might be included in a tenancy agreement for temporary easement valuation at construction site.

Easements under the Strata Title Act and National Land Code support that an easement should be included in a tenancy agreement. The terms should specify the developer reserves the easements, licenses, rights and privileges of a right of way in, through, over, under and across the common property for the purpose of completing construction and sale of parcels and facilities in the said building and towards the period time end, reserves the right to grant easements and right of way in, through, over, under and across the common property for the installation, maintenance and



inspection of lines and appurtenances for public or private use for any other materials or services necessary for the completion of the work.

This research is considered important in real estate field because construction sector may need the right of the easement to use another people land for their specific purposes and the temporary easement specific time more carry out at construction site. This research can provide an information to reach a higher-level understanding of temporary construction easement for the future researcher. The aim of this research is to identify the factors that influence rental value determination of temporary easement valuation for construction site, the challenges for the valuer in rental value determination of temporary easement valuation and the mediating impact of both influential factors and challenges on rental value determination of temporary easement valuation.

1.2 Problem Statement

In Malaysia, the main focus of the valuation field in Malaysia is on the general real estate valuation such as residential, commercial, and agricultural land valuation. Some special case of real estate valuation might be granted or judged based on personal experience. The real estate valuation system in Malaysia still imperfect as there are had many things should be improved in the future especially for easement valuation. Lack of referable information can be reference is a problem for easement valuation.

A property easement agreement is a document used by the owner of a property, known as a grantor or landlord, to allow another person, known as the grantee or tenant, to use the property for a limited or particular purpose. This document is a simple approach to offer temporary or long-term access to land without completely transferring ownership. However, the easement agreement created are often being not clear or no longer specify the purpose and terms of easement or any limitations and benefits to how easement can be used. This is critical that may occur future misinterpretation or conflict, especially since easements are frequently placed for a long time and can endure long enough that the parties no longer remember the initial conditions of their agreement.

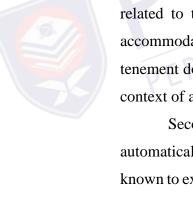
Firstly, Forbes (2014), stated that the valuation of the easement has become a big problem because there are only has vague compensation guidelines in literature and there are lack of guidelines and less discussion in Malaysia Valuation Standard



(MVS) year 2019. Easements can be classified as temporary easement and permanent easement. Temporary easement and permanent easement are specific to use and cannot be used for a purposes other than those prescribed in nature depend on their duration of holding (Troy Byers, 2015).

Moreover, the landowner may ignore their rights on the easement. The easement is a specific word only the professionals of the real estate field known it. Therefore, landowners may lose their rights of the easement if they without made any research for the easement. On the other hand, the inexperience valuers also become a common issue in the valuation of temporary construction easement because they may use unsuitable data to estimate the compensation. However, the legal statutes and case law provide some guidance but that is not enough for the valuation of temporary easement (Lusvardi, 1990).

There are some factors need to be considered during identification that influence rental value determination of temporary easement. The valuer should correctly identify all the rights for the proper valuation of the easement. One of the most important aspects is to think about the use of the property and how that use of the real estate is restricted by the easement. Then it is important to determine the location of the easement. An easement can be located in an obstruction area along the property. Different locations generate various constraints on owners and are closely related to the use of the property (Šnajberg, 2015). The law of easements must accommodate the needs of the dominant tenement and thus ensuring that the servient tenement does not become overburdened and inalienable, at the same time, all in the context of a modern society (Sc, 2007).



Secondly, temporary easements are limited to a certain period of time, and are automatically extinguished at the end of that period. If the duration of the project is known to exceed 3 years, the maximum duration can be extended. However, the longer the easement takes effect, the greater the appraised value of the easement (Eddie Burton, Mike Fallert, 2005). At the core of the difficulties found in appraisals of temporary easements is a set of misconceptions as to how to define the appraisal problem. It is more likely than not that the reported conclusion of value may be misrepresentative if the issue of valuation is undefined or incorrectly specified at the outset. One of the reasons for the misconception of the appraisal problem is that, technically speaking, market value is not the proper measure of compensation, since temporary easements are not often bought and sold in the private real estate market. (Lusvardi, 1990). This issue has become one of the challenges to the valuer when determine temporary easement valuation.

The challenge for the valuer is to determine where these figures come from the real estate market. The valuer's role is to look at the impacts of an easement (if any) on the sale of a property with similar easements. Most of the urban properties within the cladding zone may potentially burdened the easement of the utility in the case if residential property. In most cases, these easements expand along the property line and have no bearing with the sale of the house, if any. Therefore, the market shows us that easement has little value. This is because the existence of easements does not affect the use or utility of the property, nor does it impose excessive burden or destitution to the property owner. By performing multiple matching, the valuer can determine the overall trend of the assessed impact. It should be noted that both the easement and its effect are included in the total difference between encumbered and unencumbered (Donnie Sherwood, SR/WA, MAI, 2014).

Based on previous research such as Applegate et al., (2011), Munneke & Trefzger (1999), Oluseyi (2014), Stroman & Kreuter (2015), Stopar & Šubic Kovač (2016). These research focus on the topic related to easement, rental value and construction sector. Yuan et al.(2012) studied a nationwide comparison of farmland conservation easement valuation and some previous research studied on rental value for residential property, rental value for commercial property or land value in case of easement. Stroman & Kreuter (2015) studied factors influencing land management practices on conservation easement protected landscapes. Stopar & Šubic Kovač (2016) studied land valuation in case of easement in Slovenia. Soppelsa (2017) studied the determinants of land conservation by type of easement.

Even though the previous research states the topic related to easement, easement valuation, rental value and topic related to construction site, however, there is very few or even there is no research cover and focus on temporary easement to rental value determination. The previous research more focus on permanent easement or conservation easement but not temporary easement. In addition, the previous research related to rental value more focus on general real estate valuation such as residential, commercial, and agricultural land valuation or land value in case of easement but not rental value in case of easement.

The research paper related to temporary easement is very few and can be said it is almost no relevant research before in Malaysia. There are also not many cases



reference to be applied in Malaysia. Especially for temporary construction easement because each temporary easement is unique. It cannot give a concise and complete answer to valuation. Therefore, the purpose of this research is providing a clear information related to the valuation of temporary easement for construction site such as the factors that influence rental value determination of temporary easement valuation for construction site, the challenges for the valuer in rental value determination of temporary easement for construction site and how the role of mediators' effect on the influential factors to rental value determination of temporary easement valuation.

1.3 Research Questions

RQ1 What are factors that influence rental value determination of temporary easement valuation for construction site?

RQ2 What are the challenges for the valuer in rental value determination of temporary easement for construction site?

RQ3 How the role of mediators effect on the influential factors to rental value determination of temporary easement valuation?

1.4 Research Aim and Objectives

The aim of the research is to focus on the mediating impact of rental value determination between influential factors and challenges in temporary easement valuation at construction site.

The main objectives of this research are:

RO1 To identify the factors that influence rental value determination of temporary easement valuation for construction site.

RO2 To assess challenges for the valuer in rental value determination of temporary easement for construction site.

RO3 To evaluate the role of mediators on the influential factors to rental value determination of temporary easement valuation.

1.5 Research Scope

The area selected to undertake this research in Johor. The target respondents of this research focused on registered valuers and valuation officer from both private and government sector in area Johor. This research was only limited to valuers. Only the valuers who experience in these aspects being studied. Therefore, this research has three main scopes. It's aimed to gain the factors that influence the rental value determination of temporary easement valuation for construction site. In this research, the researcher collected the data from the respondents to explore their challenges in determination of rental value for temporary easement valuation and made to focus on the mediating impact of influential factors and challenges of the valuer on rental value of temporary easement valuation.

1.6 Significance of Research



This research provided new insights into the rental value determination of temporary easement valuation for construction site. This research spread awareness in the construction on recognizing temporary easement as an issue in real estate valuation and how mediation can be a useful approach to improve it. Through this research, real estate academician and land administrators may promote programs or advocacies regarding mediation that can help the property valuers or construction project manager deal with the issue on temporary easement. The results of this research provided valuable information for the advocates to further their programme on spreading awareness on rental value determination of temporary easement valuation for construction site and how the easement valuation will help the landowner to evaluate the amount of compensation without losing their rights. Property valuers could get the benefit from this research as its findings using the state rule also utilize market sales of similar properties unencumbered by easements to analyze their encumbered properties. This research covered information involving mediation as an approach to improve in temporary easement valuation. Thus, the findings of this research can be used for future discussions on the capabilities of mediation in temporary easement valuation.

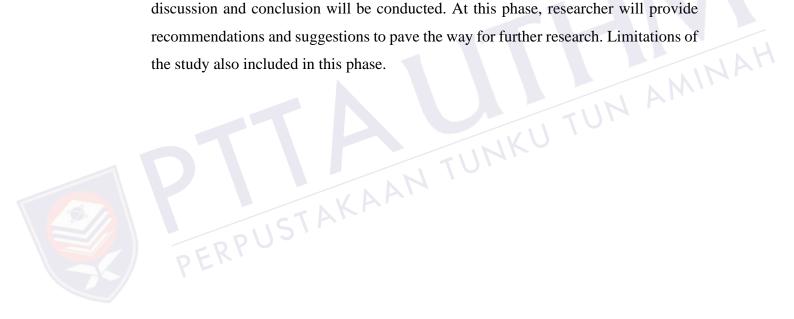
1.7 **Research Methodology**

The methodology for this research was divided into 3 phases: -

Phases One: Identified the title, problem statement, research questions and research objectives. The research objectives are formulated by research questions. Next, scope of research is only limited for the valuers in Johor. The issues focus on the factors that influence rental value determination of temporary easement valuation for construction site.

Phases Two: Quantitative method will be conducted in this phase. By conducting a quantitative method, data collection may include interview, document review and other research techniques.

Phases Three: The research finding will be concluded. In this phase, the analysis, discussion and conclusion will be conducted. At this phase, researcher will provide recommendations and suggestions to pave the way for further research. Limitations of the study also included in this phase.



1.7.1 Research Process

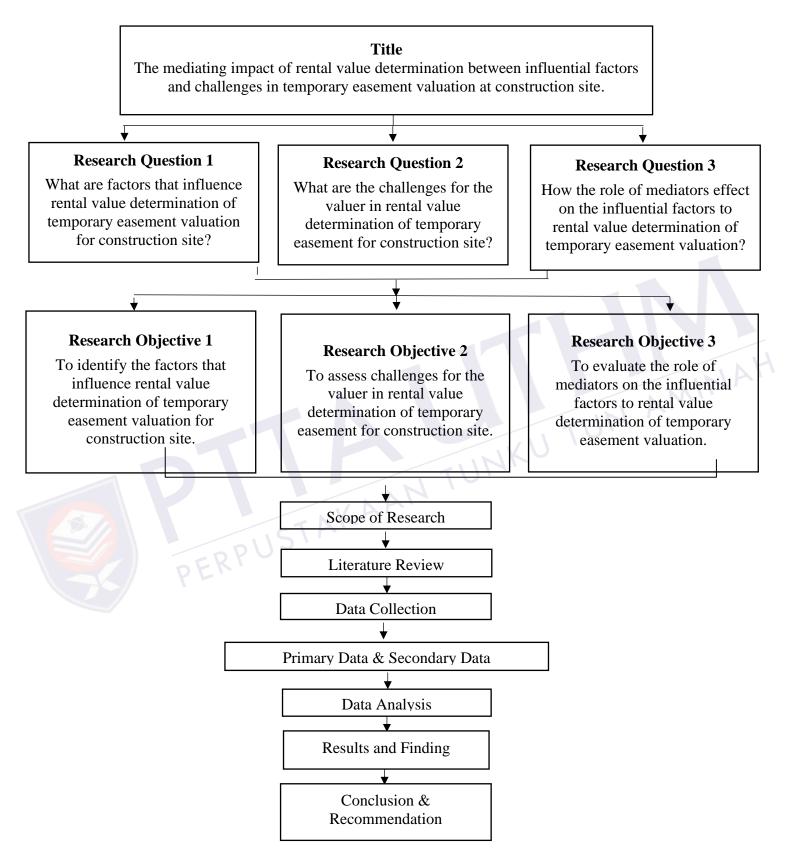


Figure 1.1: Research Flow Chart

REFERENCES

- Agribusiness, S. B. M., & Johnson, B. B. (2001). Valuing Farmland Conservation Easements. https://digitalcommons.unl.edu/ageconfacpub
- Akintoye, A. (2015). Developing theoretical and conceptual frameworks. *Jedm. Oauife. Edu. Ng.(Accessed on the 22nd February2017).*
- Aleithawe, I. (2010). Acquisition of right of way for highway construction [Mississippi State University]. In *ProQuest Dissertations and Theses*. https://search.proquest.com/dissertations-theses/acquisition-right-way-highwayconstruction/docview/250877659/se-2?accountid=50362



Allen, A. N. (2001). The Appraisal of Easements. www.hcpeck.com

Amidu, A.-R., & Boyd, D. (2018). Expert problem solving practice in commercial property valuation: an exploratory study. *Journal of Property Investment & Finance*.

Applegate, D., Cronberg, A., & White, T. A. (2011). Challenges of Large DiameterHorizontalDirectionalDrills(pp. 596–606).https://doi.org/10.1061/41187(420)55

Appraisal Guide. (2011). http://www.fhwa.dot.gov/realestate/act.htm.

Appraisal Institute (U.S.). (2010). *The dictionary of real estate appraisal*. (Fifth edit). Chicago; Appraisal Institute, 2010.

- Arnold, D. M., Burns, K. E. A., Adhikari, N. K. J., Kho, M. E., Meade, M. O., & Cook, D. J. (2009). The design and interpretation of pilot trials in clinical research in critical care. *Critical Care Medicine*, 37(1), S69–S74.
- Bagozzi, Richard, P., & Youjae, Y. . (1988). On the Evaluation of Structural Equation Models. In *Journal of the Academy of Marketing Science* (Vol. 16, Issue Spring, pp. 74–94).
- Baranowski, T., Anderson, C., & Carmack, C. (1998). Mediating variable framework in physical activity interventions: How are we doing? How might we do better? *American Journal of Preventive Medicine*, 15(4), 266–297.
- Baron, R. M., & Kenny, D. A. (1986). The Moderator-Mediator Variable Distinction in Social Psychological Research. Conceptual, Strategic, and Statistical Considerations. *Journal of Personality and Social Psychology*, 51(6), 1173–1182. https://doi.org/10.1037/0022-3514.51.6.1173
- Bland, J. M. (1997). Cronbach Alpha. In British Medical Journal (Vol. 314, p. 572).



Boone, H. N., & Boone, D. A. (2012). Analyzing Likert data. Journal of Extension.

- Buttel, F. H., Larson, O. F., & Gillespie Jr, G. W. (1990). *The sociology of agriculture*. Greenwood Press, Inc.
- Camp, W. (2001). Formulating and evaluating theoretical frameworks for career and technical education research. *Journal of Vocational Education Research*, 26(1), 4–25.
- Cervero, R., & Duncan, M. (2002). Transit's value-added effects: Light and commuter rail services and commercial land values. *Transportation Research Record*, 1805(1), 8–15.

- Check, J. W., & Schutt, R. K. (2012). *Research methods in education*. Sage Publications.
- Chris, O., & Sc, A. (2007). The Effects of Facilities Provision on Rental Values of Residential Properties In Ikeja, Lagos State.

Chua, Y. P. (2012). *Mastering research methods*. McGraw-Hill Education.

- Clarke, R. A. (1968). Easement and Partial Taking Valuation Problems. In *Hastings Law Journal* (Vol. 20). https://repository.uchastings.edu/hastings_law_journal
- Creswell, J. W. (2003). Research Design Qualitative, Quantitative. and Mixed Methods Approaches Second Edition Sage Publications International Educational and Professional Publisher Thousand Oaks London New Delhi.
- Crone, T. M., Nakamura, L. I., & Voith, R. (2004). Hedonic estimates of the cost of housing services: rental and owner-occupied units. *Working Papers*. https://ideas.repec.org/p/fip/fedpwp/04-22.html

Daniels, T., & Bowers, D. (1997). Holding our ground: Protecting America's farms and farmland. Island Press.

Deac, V. (2014). Land Valuation in Romania: Challenges and Difficulties. Procedia Economics and Finance, 15, 792–799. https://doi.org/10.1016/s2212-5671(14)00518-8

Donald J. Sherwood, SR/WA, MAI, F. (2015). Easement valuation.pdf (pp. 22-24).

Donald Sherwood, S. (2006). *Easement Valuation*. 30–33. https://eweb.irwaonline.org/eweb/upload/ROW Archives 7-05 thru 7-06/506/Easement.pdf Donnie Sherwood, SR/WA, MAI, F. (2014). *The Valuation of Easement*. https://sherwood.support/wp-content/uploads/2016/12/Easement-Valuation-rev-9-30-14.pdf

95

Dwight Pattison. (1986). Approaches to the temporary easement.

Easement Act 1882. (1961). *Easement Act 1882. 1960*(V).

- Eddie Burton, Mike Fallert, P. (2005, December). APPROVED EASEMENT LIST. Oregon Department Of Transportation,Right Of Way Section Roadway Engineering Section, Right Of Way Engineering Group. https://www.oregon.gov/ODOT/ETA/Publications/Approved_Easements.pdf
- Edmonds, W. A., & Kennedy, T. D. (2013). An applied reference guide to research designs.

Encyclopedic Dictionary of Landscape and Urban Planning. (2010). In Encyclopedic Dictionary of Landscape and Urban Planning (pp. 274–274). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-540-76435-9_3834

Evans, M. (2007). Recent research (2000-2006) into applied linguistics and language teaching with specific reference to L2 French. *Language Teaching*, 40(3), 211.

Forbes. (2014, April 5). Easement Valuations Not So Easy Anymore. https://www.forbes.com/sites/peterjreilly/2014/04/05/easement-valuations-notso-easy-anymore/?sh=301480ba43c2

Gabriela Ocampo. (2014). Eminent Domain Law – Valuing Temporary Construction Easements / Century Law Group, LLP / Los Angeles. https://www.fighteminentdomain.com/News/Eminent-Domain-Law-Valuing-Temporary-Construction-Easements.shtml

- Grant, C., & Osanloo, A. (2014). Understanding, Selecting, and Integrating a Theoretical Framework in Dissertation Research: Creating the Blueprint for Your "House." *Administrative Issues Journal Education Practice and Research*, 4(2). https://doi.org/10.5929/2014.4.2.9
- Haw, M., Cocklin, C., & Mercer, D. (2000). A pinch of salt: landowner perception and adjustment to the salinity hazard in Victoria, Australia. *Journal of Rural Studies*, 16(2), 155–169.
- Hayes, A. F. (2012). PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling. University of Kansas, KS.
- Henneberry, J. (1998). Transport investment and house prices. *Journal of Property* Valuation and Investment.

Hepburn, S. (1998). Principles of property law. Routledge-Cavendish.



Huffman, C., & Longhofer, S. D. (2016). Statistical analysis of effects of access, traffic exposure, and frontage parameters on sale price of commercial real property in Kansas. *Transportation Research Record*, 2556(1), 10–19.

International Valuation Standards, Sixth Edition. (2003).

Kabii, T., & Horwitz, P. (2006). A review of landholder motivations and determinants for participation in conservation covenanting programmes. *Environmental Conservation*, 33(1), 11–20. https://doi.org/10.1017/S0376892906002761

Kelly, A. M. (1984). State Dept. of Highways v. Woolley, 696 P.2d 828. Colorado Court of Appeals, Div. III. https://www.courtlistener.com/opinion/1177160/state-dept-of-highways-vwoolley/

- Labaree, R. V. (2009). Research Guides: Organizing Your Social Sciences Research Paper: Quantitative Methods.
- Lancaster, G. A., Dodd, S., & Williamson, P. R. (2004). Design and analysis of pilot studies: recommendations for good practice. *Journal of Evaluation in Clinical Practice*, 10(2), 307–312.

Land Acquisition Conference, I. (2016). Uniform Appraisal Standards for Federal Land Acquisitions.

Law of Property Act 1925. (n.d.). PROPERTY ACT 1925 SECTION 62.

- Lee, C.-C., & Lin, H.-Y. (2014). The Impacts of the Quality of the Environment and Neighbourhood Affluence on Housing Prices: A Three-Level Hierarchical Linear Model Approach. Asian Economic and Financial Review, 4(5), 588–606.
- Leedy, P. D., & Ormrod, J. E. (2001). *Practical research : planning and design*. Merrill Prentice Hall.



- Liehr, P., & Smith, M. J. (1999). Middle range theory: Spinning research and practice to create knowledge for the new millennium. *Advances in Nursing Science*, 21(4), 81–91.
- Loeb, S., Dynarski, S., Mcfarland, D., Morris, P., Reardon, S., & Reber, S. (2017). Descriptive analysis in education: A guide for researchers The National Center for Education Evaluation and Regional Assistance (NCEE) conducts unbiased large-scale evaluations of education programs and practices.
- Lusvardi, W. (1990). Appraising Temporary Physical Easement: Eliminating the Guesswork.pdf. https://eweb.irwaonline.org/eweb/upload/0800a.pdf

MacKinnon, D. P., Fairchild, A. J., & Fritz, M. S. (2007). Mediation analysis. Annu.

Rev. Psychol., 58, 593-614.

- Malaysian Valuation Standard Sixth Edition. (2019). Lembaga Penilai, Pentaksir & Ejen Harta Tanah Malaysia.
- Marvin, L. W., & Jimmy, S. (2000). Hedonic Estimate of Regional Constant Quality Housing Price. *Journal of Real Estate Research*, 19(3), 235–253.
- Mayo, T. D. (2000). A holistic examination of the law of conservation easements. *JA Gustanski and RH Squires, Editors*, 26–54.
- Mbachu, J. I. C., & Lenono, N. (2005). Factors influencing market values of residential properties. In *Queensland University of Technology Research Week International Conference, QUT Research Week 2005 Conference Proceedings*.
- Mclaughlin, N., & Mclaughlin, N. A. (2016). Conservation Easements and the Valuation Conundrum Florida Tax Review Conservation Easements And The Valuation Conundrum (Vol. 19, Issue 4). http://dc.law.utah.edu/scholarship



Miller, N. G., & Markosyan, S. (2003). The Academic Roots and Evolution of Real Estate Appraisal. In *The Appraisal Journal* (Issue April, pp. 172–184).

- Moidunny, K. (2009). The Effectiveness of the National Professional Qualification for Educational Leaders (NPQEL). Unpublished Doctoral Dissertation, Bangi The National University of Malaysia. - References - Scientific Research Publishing.
- Morse, J. M. (2000). Determining Sample Size. *Qualitative Health Research*. https://doi.org/10.1177/104973200129118183
- Munizzo, M. A., & Musial, L. V. (2010). General market analysis and highest and best use. Cengage Learning.

Munneke, H. J., & Trefzger, J. W. (1999). Nonlinear Effects in Easement Valuation. Journal of Real Estate Research, 16(2), 219–228.

National Land Code (ACT 56 OF 1965) VER 1.0. (n.d.).

- Nduti, D., & Wambugu, W. M. (2017). Factors Affecting The Market Price Of Commercial Real Estates In Nairobi. A Case Study Of Huruma Estate. *International Journal of Finance*, 2(5), 19–37.
- Norris, P. E., & Shabman, L. A. (1988). Reducing nitrogen pollution from crop production systems: a watershed perspective. American Water Resources Association Technical Publication Series TPS (USA).
- Odubola, I., & Adeyeemi, W. (2017). Effect of Socioeconomic Factors on the Rental Values of Accommodation in Lagos Metropolis. *Equatorial Journal of Social Sciences and Human Behaviour*, 2(3), 106–120.

Olusegun, G. K. (2003). Principles and practice of property valuation. Volume One: General Principles). Climax Communications Limited, Lagos.

Oluseyi, J. A. (2014). Critical factors determining rental value of residential property in Ibadan metropolis, Nigeria. *Property Management*, 32(3), 224–240. https://doi.org/10.1108/PM-05-2013-0033

Oyebanji, A. O. (2003). Principles of Land Use Economics. Olu Oyebanji & Company.

- Parker, D. P. (2004). Land trusts and the choice to conserve land with full ownership or conservation easements. *Natural Resources Journal*, 483–518.
- Peshkin, A. (1993). The goodness of qualitative research. *Educational Researcher*, 22(2), 23–29.

- Salleh, B. (1989). *Malaysian torrens system : by Haji Salleh Haji Buang*. Dewan Bahasa dan Pustaka.
- Saunders, M., Lewis, P., & Thornhill, A. (2016). Research Methods for Business Students(7th edition). Harlow: Pearson.

Sc, M. S. R. R. A. O. B. (2007). Law of Easements.

- Shipman, M. S. (2014). Calculating Damages and Just Compensation In Eminent Domain Proceedings.
- Shrout, P. E., & Bolger, N. (2002). Mediation in experimental and nonexperimental studies: new procedures and recommendations. *Psychological Methods*, 7(4), 422.
- Sidebottom, M. (2010). Lymington River Fish Passage Easements: A Case Study from the New Forest (UK). In Salmonid Fisheries: Freshwater Habitat Management (pp. 278–289). https://doi.org/10.1002/9781444323337.ch14
- Sinden, J. A., & King, D. A. (1990). Adoption of soil conservation measures in Manilla shire, New South Wales. *Review of Marketing and Agricultural Economics*, 58(430-2016–31570), 179–192.
- Singla, H. K., & Bendigiri, P. (2019). Factors affecting rentals of residential apartments in Pune, India: an empirical investigation. *International Journal of Housing Markets and Analysis*, 12(6), 1028–1054. https://doi.org/10.1108/IJHMA-12-2018-0097
- Šnajberg, O. (2015). Valuation of Real Estate with Easement. *Procedia Economics* and Finance, 25, 420–427. https://doi.org/10.1016/s2212-5671(15)00753-4

- Soppelsa, M. E. (2017). The Determinants of Land Conservation by Type of Easement: A Conditionally Parametric Multinomial Logit Approach.
- Stokesberry, J. (2019). *Floating Temporary Easement Valuation*. https://wsdot.wa.gov/sites/default/files/2020/01/14/FloatingEasementPolicy.pdf
- Stopar, I., & Šubic Kovač, M. (2016). Land valuation in case of easement: The case study in Slovenia. *Geodetski Vestnik*, 60(4), 685–716. https://doi.org/10.15292/geodetski-vestnik.2016.04.685-716
- Stroman, D., & Kreuter, U. P. (2015). Factors Influencing Land Management Practices on Conservation Easement Protected Landscapes. *Society and Natural Resources*, 28(8), 891–907. https://doi.org/10.1080/08941920.2015.1024365

The dictionary of real estate appraisal. (4th ed.). (2002). Appraisal Institute.

Thompson, S. K. (2012). Sampling (Vol. 755). John Wiley & Sons.



- Troy Byers. (2015). Appraisal of Temporary and Permanent Easement. http://sp.rightofway.transportation.org/Documents/Meetings/2015 Meeting Presentations/Appraisal of Temporary and Permanent Easements-GA-presented by Byers,Troy.pdf
- Vanclay, F., & Lawrence, G. (1994). Farmer rationality and the adoption of environmentally sound practices; a critique of the assumptions of traditional agricultural extension. *European Journal of Agricultural Education and Extension*, 1(1), 59–90.
- Wang, Y., & Libby, L. W. (2002). Purchase of Agricultural Conservation Easements and Other Farmland Rights: Evidence on Price and Willingness to Supply. *Columbus, Ohio: Ohio State University.*

Washington, D. . (1992). Uniform Appraisal Standards for Federal Land Acquisitions.

Wei, T. Y., & Keong, S. M. (2016). A Study On Barriers And Challenges To Value Management Implementation By Qs Firms In Selangor. In *INTI International* University INTI Journal Special Edition-Built Environment.

Wyatt, P. (2013). Property valuation. John Wiley & Sons.

- Yin, R. K. (1981). The case study as a serious research strategy. *Knowledge*, *3*(1), 97–114.
- Yuan, Y., Boyle, K. J., You, W., & Fuller, H. M. (2012). A Nationwide Comparison of Farmland Conservation Easement Valuation. In Agricultural and Applied Economics Association, Annual Meeting, August 12-14, 2012, Seattle, Washington.
- Źróbek, S., & Grzesik, C. (2013). Modern challenges facing the valuation profession and allied university education in Poland. *Real Estate Management and Valuation*, 21(1), 14–18.

Zurbrugg, A. M. (2003). Less-Than-Perpetuity And Agricultural Conservation Easements.



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