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Durian Farmland Valuation in Malaysia

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Abstract

This study discusses the valuation of durian agricultural, by focusing on the factors that influence the value of land and the challenges in the valuation process. The main factors studied include the age of the tree, type of tree, landform, location, area conditions, and the existence of buildings and infrastructure facilities that influence the market value of durian agricultural land, especially the high-value Musang King durian variety. This study also identified the main challenges in the valuation process, such as outdated area information, difficulty in accessing the interior, environmental factors, and the valuation process, which is technical and requires high expertise. The study data was obtained through a qualitative approach with interviews with property valuers from the private and government sectors as well as a literature review from journal articles and related reference sources. Data analysis shows that the location factor, tree type, and tree age are the main elements that influence the market value of durian agricultural land, while the lack of data and the complex valuation process are the main challenges. This study recommends an increase in the use of systematic data recording including financial inflow and outflow in valuation approach to ensure accuracy, fairness, and effectiveness in the valuation of agricultural land in the area. It is hoped that these findings will be a useful guide for property valuers, landowners, and stakeholders in the agricultural property sector.

1. Introduction

Agricultural land valuation is a process of determining the economic value of a piece of land that is important in the real estate sector, especially in determining a fair market price for land purchase and lease transactions. This process considers various factors such as potential land use, land quality, topography, and available infrastructure. A systematic and accurate valuation is not only important to ensure fairness in transactions but also helps in planning the optimal use of land and avoiding market value disparities that can be detrimental to landowners and buyers.

Musang King durians have high demand domestically and internationally, making agricultural land in this area increasingly valuable. However, the varying land values for similar areas often raise questions about the factors

that influence the valuation of agricultural land. Factors such as tree age, crop type, landform, location, and the existence of infrastructure facilities are often determinants in this valuation process.

However, the durian agricultural land valuation process also faces certain challenges that can affect the accuracy of the valuation results. Among the challenges identified include the lack of updated data, difficulty accessing remote areas, technical factors in the valuation process, and environmental issues. Therefore, this study aims to identify factors that influence the value of durian agricultural land as well as the challenges faced by valuers in valuing land in Raub, Pahang. It is hoped that this study can help improve the accuracy and fairness in the property valuation process, especially in the high-value durian agricultural sector.

Agricultural land valuation is an important process in determining the economic value of land based on factors such as potential use, soil quality, topography, and available infrastructure facilities. The high market value of durian agricultural land is due to the increasing domestic and international demand, especially for the Musang King variety which is known for its premium quality. However, the significant difference in market value between one area and another despite having almost similar characteristics raises questions regarding the valuation factors that affect the value of the land. Therefore, this study was conducted to assess the factors that affect the valuation of durian agricultural land as well as identify the challenges faced by property valuers in valuing agricultural land to ensure accuracy and fairness in the valuation of agricultural properties.

Agricultural land valuation plays an important role in determining the fair and accurate economic value of land, especially for durian agricultural land. However, several issues arise in this valuation process, including a lack of expertise in systematically and thoroughly evaluating agricultural land. An inaccurate valuation process can cause imbalances in determining land values, which ultimately harm the land owner or buyer. Factors such as tree age, crop type, location, and area conditions are not consistently assessed, causing significant differences in value even though the land is located in the same area.

In addition, technical challenges such as lack of updated area information, difficulty accessing remote areas, and complex valuation processes also affect the accuracy of durian agricultural land valuation. Uncertainty in data and incomplete information can result in injustice in real estate transactions and affect the reputation of the real estate valuation industry. Therefore, this study was conducted to identify the main factors that influence the value of durian agricultural land and examine the challenges faced by valuers to ensure accuracy and fairness in the land valuation process.

This study is important in ensuring that the process of evaluating durian agricultural land is carried out accurately and systematically to determine a fair and uniform market value. Proper valuation helps landowners and stakeholders set appropriate prices in transactions such as buying and selling, leasing, and land compensation, thus avoiding injustice in determining land values. In addition, a thorough valuation can assist authorities in setting reasonable tax rates and supporting more sustainable land development planning. With a comprehensive valuation, it also facilitates the process of land use change and more effective agricultural development, especially for the high-value Musang King durian crop.

2. Literature Review

Literature review is an important part of a research that provides theoretical references and research context based on existing sources. It involves critical reviews of documents such as journal articles, books, and other materials relevant to the topic of study. Literature review helps to form a research framework, identify knowledge gaps, and support the formulation of appropriate research questions and methodologies. Thus, it serves as a basis for understanding the background and importance of the topic being studied.

2.1 Types of Valuation Method

The Malaysian Valuation Standards (MVS) provide a framework for determining property values based on established methodologies. These standards emphasize the importance of using objective data and market conditions to ensure accuracy and fairness in property valuation. The approach involves assessing a property's value through methods that consider market transactions, income potential, and costs associated with property reproduction or replacement. The MVS also highlights the necessity of using multiple approaches where applicable to cross-verify results, ensuring a comprehensive and balanced assessment. This standardized system helps maintain consistency and reliability in property valuations across Malaysia.

2.1.1 Comparison Method

The comparison method involves comparing similar land based on market transactions. According to Özdilek (2023), the comparison method is a technique used by appraisers to make an assessment between two or more properties of the same amount.

2.1.2 Profit Method

The profit method is used when comparison data is not available, by assessing gross and net profits. According to Van Vuuren (2016), the profit method is often used by appraisers when there are no comparable rental or sale transactions for the property.

2.2 Factors of Valuation

Factors of valuation refer to the various aspects and conditions that influence the determination of an asset's value. These include elements such as the asset's characteristics, its surrounding environment, prevailing market trends, and any legal or economic conditions that may impact its worth. These considerations ensure that the valuation process reflects the asset's true value in a given context, based on a comprehensive assessment of the relevant circumstances.

2.2.1 Trees Age Factor

Tree age is mature trees yield higher value. According to Yaacob (1983), determining the optimal age for durian trees should be evaluated based on various factors such as growth rate, reproductive performance, nutrient absorption, and fruit quality.

2.2.2 Topography Factor

Topography is influencing operational costs and productivity. Topography significantly affects property valuation for agricultural land due to its impact on productivity, operational efficiency, and investment potential. Geometric configuration is a critical determinant of market value for agricultural land as it can influence farming activity costs. For example, irregularly shaped plots may increase costs and reduce income due to inefficiencies in agro-technical operations, as noted by Kamil (2016).

2.2.3 Workers Factor

Worker skills affect agricultural efficiency and yield. Worker skills significantly impact the valuation of agricultural land as they directly influence productivity and land management practices. Labor efficiency in agriculture is crucial to restoring agricultural potential and maintaining the country's role in agricultural production, as highlighted by Aadolf (2015).

2.2.4 Facilities Factor

Basic facilities enhance land value. According to Kim et al. (2016), accessibility to community facilities, including healthcare and transportation, also plays an important role in land valuation.

2.3 Challenges of Valuation

The challenges of valuation refer to the various difficulties and obstacles that professionals face when determining the financial worth of an asset, such as land, property, or business. These challenges can arise from the complexities involved in accurately assessing the value of an asset, considering various factors that may influence its worth. They may include difficulties in gathering and analysing relevant data, dealing with uncertainties or inconsistencies in market conditions, or accounting for external influences that could affect the asset's value. Such challenges can hinder the accuracy of the valuation process, making it essential for valuers to adopt effective methods and approaches to ensure reliable outcomes.

2.3.1 Environmental Issues

Real estate valuers face significant challenges due to the potential threats posed by wildlife. These risks can complicate the valuation process, especially in agricultural land assessments. The presence of wildlife can pose danger to humans, and valuers must take this risk into account when evaluating land, as noted by Raji et al. (2023).

2.3.2 Technical Process

According to Durán et al. (2022), agricultural land valuation is a highly technical process, presenting several challenges. A key difficulty arises from the need to develop a common understanding of ecosystem services among various stakeholders to ensure sustainable land management decisions. This is complicated by the technical nature of the field and the diverse expertise involved.

2.3.3 Remote Location

As mentioned by Flores-Benitez et al. (2013), valuing agricultural land in remote areas presents challenges due to various factors that can affect land value. The absence of infrastructure and water resources, which are critical for agricultural activities, significantly impacts the valuation process in these regions.

2.3.4 Outdated Data

The challenge of outdated and unupdated data in agricultural land valuation can lead to significant inaccuracies. Valuers rely on current data about the location, market dynamics, and physical condition of the area to make accurate assessments. The complexity of agricultural land valuation is further increased by the need for accurate data, as evidenced by the limitations of the Multiple Regression Analysis (MRA) model struggling with precision due to the diverse nature of farm aspects and the size of geographical areas (Van Der Walt & Boshoff, 2017).

3.0 Research Methodology

This is a systematic approach and process used in this study to achieve its objectives. The research design consists of five main stages. It begins with identifying the problem, objectives, and scope of the study, followed by a literature review to establish the theoretical foundation. Data is collected through qualitative methods, including primary techniques such as interviews with property appraisers, as well as secondary methods involving references from journals, books, and related articles. The collected data is then analysed in-depth to ensure the research conclusions are accurate and relevant. Finally, conclusions and recommendations are provided as guidance for stakeholders and future reference. This approach ensures that the research is conducted comprehensively, systematically, and effectively.

4.0 Data Analysis

This section introduces the objective of the chapter, which is to analyze the research findings through a structured interview process. The interview results are analyzed to provide an in-depth understanding of the factors influencing the valuation of durian agricultural land and the challenges faced by valuers.

4.1 Section A: Demographics

Table 1: *Respondent Biography*

	Respondent 1	**Respondent 2**
Organisation Name	Rahim & co International sdn. Bhd.	Jabatan penilaian dan Perkhidmatan harta (jpph)
Responsibilities	valuation officer	Valuation officer
Period of experience	19 years	10 years

4.2 Factors Considered in the Valuation of Durian Agricultural Land

Table 2: Respondents' analysis of factors taken into account in the valuation of durian agricultural land

Factors Considered In The Valuation	Respondent 1	Respondent 2	Score
Comparison Method	✓	✓	2
Profit Method	×	×	0
Ages Of Trees	✓	✓	2

Types Of Trees	✓	✓	2
Presence Of Buildings	✓	✓	2
Market Study	○	✓	1
Condition Area	✓	✓	2
Location	✓	✓	2

References

✓	**Agree**
×	Disagree
o	Did not state

4.2.1 Comparison Method

The Comparison Method is considered one of the main factors in the valuation of durian agricultural land. This method involves comparing the land being evaluated with other similar lands, such as those with the same type of crops, tree age, and geographical location, to determine a more accurate and objective market value. Respondents explained that durian land should be compared with other durian lands (similar to comparing "apples to apples") to ensure the valuation reflects factors such as maintenance costs, infrastructure, and durian production potential. The effectiveness of this method depends on the availability of comprehensive and up-to-date market data. Additionally, this method helps identify differences in soil fertility, topography, and available amenities, making it a critical tool for a more systematic and transparent evaluation.

4.2.2 Profit Method

The Profit Method is not suitable for use in the valuation of durian agricultural land because it relies on estimated profits, which are difficult to measure accurately. Durian has a long-life cycle, with fruit production being inconsistent each year and influenced by factors such as weather, diseases, and fluctuating quality. Furthermore, this method requires detailed data on operating costs and complicated revenue calculations due to factors such as seed quality, soil types, and varying farm management practices. The high management costs and uncertainty of annual income make profit estimates unstable, leading to inaccuracies in the valuation of durian land.

4.2.3 Tree Age

The third factor is the age of the tree. This is an important factor in the valuation of durian agricultural land. The age of the durian trees affects the land's value because it is closely related to the productivity and quality of the durian yield. Valuers take the tree's age into account based on its production performance. Trees aged between 6 to 7 years show increased quality with thinner fruit skins, better weight, and a longer lifespan. The tree's age is also an important indicator as it determines the level of care, yield potential, and the commercial value of the agricultural land. Therefore, the tree's age plays a significant role in determining the fair and accurate market value of the durian agricultural land.

4.2.4 Tree Type

Next, the type of tree is an important factor in the valuation of durian agricultural land. The type of durian trees planted, such as Musang King durian, greatly affects the land's value due to its high market demand and significant economic returns. Land valuers consider whether the trees in the area are high-quality varieties or regular types, as this affects both the yield and overall market value of the land. Musang King durian, for instance, is identified as a premium variety with a higher commercial value, making it a critical factor in determining the land's value. The land's ability to support specific tree types is also considered when evaluating the potential of the land to produce high-quality durian.

4.2.5 Presence of Buildings

The presence of buildings is an important factor in the valuation of durian agricultural land because it affects the available amenities and infrastructure for farm management. Buildings such as manager's houses, storage facilities, and durian processing plants help improve operational efficiency by providing space for storing equipment and harvested produce. Furthermore, good buildings can enhance worker safety and welfare, reduce labor shortages, and increase productivity. The presence of suitable buildings also facilitates the marketing and sale of produce by providing quality packaging spaces, thereby increasing the potential profitability of durian agricultural land.

4.2.6 Market Research

In addition, market research is an important factor in the valuation of durian agricultural land because it provides insights into the demand and supply of durian in the market. Durian has specific peak seasons, and its demand may fluctuate based on seasonality and consumer preferences. Market research helps valuers understand demand trends in both local and international markets, influencing sale prices and the potential profits of the agricultural land. Furthermore, it identifies durian varieties with high demand, such as Musang King, which can enhance the value of durian agricultural land. Factors such as market price changes due to oversupply or economic policies are also analysed to provide a more accurate and stable evaluation.

4.2.7 Land Conditions

Land conditions play an important role in the valuation of durian agricultural land because they affect soil fertility, farm management effectiveness, and crop yield potential. Fertile land with good drainage is crucial for healthy durian tree growth and high-quality fruit production. In contrast, rocky or nutrient-poor land limits tree growth, thereby reducing the land's value. Topography also plays a role, where stable hill land tends to have higher value compared to flat or rocky land. Other factors such as nearby river flows can be advantageous if used as a good irrigation source. Accurate valuation considers the land's overall condition, including accessibility, geographic stability, and soil maintenance levels.

4.2.7 Locations

Location plays a crucial role in the valuation of durian agricultural land because it affects accessibility, operating costs, and the land's production potential. Land located in areas with good access to roads, water supplies, electricity, and other facilities will be easier to manage and minimize transportation costs for harvested produce. Conversely, land far from basic infrastructure can increase operational costs. Land located near development areas or major cities also tends to have higher value due to access to skilled labor and a larger market. Risk factors such as natural disasters, including floods or landslides, also affect land value, and safer areas receive higher valuations.

4.3 Challenges Faced by Valuers in Valuing During Agricultural Land

Table 3 : *Respondent Analysis on Challenges Faced in Valuing Durian Agricultural Land*

Challenge Faced	Respondent 1	Respondent 2	Score
Landform	✓	○	1
Evidence Adjustment	✓	○	1
Information Acquisition	○	✓	1

References

✓	**Agree**
×	Disagree
o	Did not state

4.3.1 Landform

Terrain plays an important role in the valuation of durian agricultural land because it affects the ability to conduct the valuation effectively. Hilly or mountainous areas make it difficult for valuers to move, especially when access is limited to vehicles, which can slow down the valuation process. Additionally, hilly areas require more specialized equipment and physical effort to ensure the valuation operation proceeds smoothly. Steep land conditions can also affect natural drainage and increase the risk of erosion, which may endanger the safety of the valuer while conducting the land valuation.

4.3.2 Adjusting Evidence

Adjusting 'evidence' in the comparative method presents a challenge in valuing durian agricultural land because each durian planting area has unique characteristics that are difficult to compare directly. Factors such as location, tree age, soil type, and farm management levels vary between farms. Therefore, valuers need to carefully adjust the evidence to ensure that the comparisons made are relevant and accurate. This process requires in-depth analysis and broad knowledge of durian cultivation. Furthermore, market factors such as land prices and fluctuating demand must be considered so that the land value determined accurately reflects the current market conditions.

4.3.3 Information Acquisition

The acquisition of information is a challenge in the valuation of durian agricultural land because it involves difficulty in obtaining accurate information from landowners. One key factor is the language barrier, as some owners may not understand Malay or English, making effective communication challenging. This leads to unclear or incomplete information regarding farm management records, land conditions, and crop details. A lack of trust between the valuer and the landowner also causes the information received to be less than accurate. This situation forces the valuer to rely on translators or secondary sources, which could potentially result in inaccuracies in the valuation report.

4.4 Differences Valuation between Respondent 1 and Respondent 2

Table 4: *Differences Valuation between Respondent 1 and Respondent 2*

Item	Respondent 1	Respondent 2
Date of this Agreement	same	same
Particulars of the Vendor(s)	same	same
Particulars of the Purchaser(s)	same	same
Particulars of the Land	same	same
The Encumbrances	more flexible in disregarding charges or mortgages if they are not essential for the market value analysis, depending on the client's requirements	conduct a more thorough review of the charge or mortgage status, especially in cases involving financial institutions or loan-related transactions.
Restriction – in – Interest	considers restrictions in interest but may place less emphasis compared to JPPH unless specifically directed by the client.	ensures there are no restrictions in interest that could affect valuation, such as ownership limitations or development regulations that vary by state.
The Purchase Price	same	same
The Earned Deposit	require information on the deposit paid for negotiation purposes or for assessing more complex commercial transactions.	not focus heavily on the deposit already paid since their priority is assessing the land's value and transaction validity.
The Balance Deposit	require details of the remaining deposit to better understand the purchase agreement and provide advice or pricing negotiations based on the unpaid balance.	The remaining deposit may not be seen as a critical factor in valuation as they focus more on the land's current value

5.0 Conclusion

This study has demonstrated that the valuation of Musang King durian agricultural, involves various factors such as tree age, topography, and available facilities. However, challenges such as environmental issues, lack of updated data, and the complexity of the valuation process need to be addressed more effectively. The recommended measures can help improve the efficiency and accuracy of the valuation process, ensuring that the land's value is determined fairly and in line with the market. With a more systematic approach and integration of modern technology, this sector has the potential to contribute significantly to both the local and national economy.

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Conflict of Interest

The author confirms that there is no conflict of interest regarding the publication of this paper.

Authors contribution

The authors confirm contribution to the paper as follows: ***study conception and design****: Ezril Faireez Mohamad Sufawi, Abdul Jalil bin Omar;* ***data collection****: Ezril Faireez Mohamad Sufawi,;* ***analysis and interpretation of results****: Ezril Faireez Mohamad Sufawi, Abdul Jalil bin Omar;* ***draft manuscript preparation****: Ezril Faireez Mohamad Sufawi, Abdul Jalil bin Omar. All authors reviewed the results and approved the final version of the manuscript*

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