IPN Journal of Research and Practice in Public Sector Accounting and Management
Volume 16, No. 1, 2026, pp. 17 - 40

Valuation Methods for Assessing Government-Owned Heritage Buildings in Malaysia

Abdul Jalil Omar[1]*, Indera Syahrul Mat Radzuan[2], Kamilah Ahmad[3], Azman Mab@Adnan[4], Rosli Nor[5]

[1,2]Malaysian Real Estate Institute (MyREI), Universiti Tun Hussein Onn Malaysia, Batu Pahat, Johor, Malaysia
[3]Department of Production and Operation Management, Faculty of Technology Management and Business, Universiti Tun Hussein Onn Malaysia, Batu Pahat, Johor, Malaysia
[4]Valuation and Property Services Department, Pulau Pinang, Malaysia
[5]International Council on Monuments and Sites (ICOMOS) Malaysia, Kuala Lumpur, Malaysia

**Corresponding Author: jalil@uthm.edu.my*

https://doi.org/10.58458/ipnj.v16.01.02.0124

Received: 30 October 2025 *Reviewed: 7 April 2026* *Accepted: 6 May 2026* *Published : 30 June 2026*

Abstract

Purpose: The current paper sought to identify and evaluate valuation and measurement approaches for government-owned heritage buildings in Malaysia to address existing methodological gaps under the Malaysian Public Sector Accounting Standards (MPSAS) while proposing a Malaysia-tailored framework that could help balance financial accountability with cultural stewardship.

Design/ Methodology/ Approach: Empirical evidence was gathered via three (3) focus group discussions (FGDs), which were conducted in Melaka (n=15), Pulau Pinang (n=19), and online (n=14), involving private registered valuers, valuers from the Valuation and Property Services Department (JPPH), local-authority officials, architects, conservators, and academics. Specifically, the present study performed FGDs to bridge the methodological gap in valuing non-market heritage buildings by eliciting multidisciplinary expert consensus to develop a standardised valuation framework for public-sector accrual accounting, with all transcribed discussions analysed thematically and triangulated with documentary evidence.

Findings: The current research concluded that government-owned heritage buildings in Malaysia should be valued using a cost approach, which focused on reproduction cost rather than being recorded at a nominal value of RM1, thereby ensuring full compliance with accrual accounting under MPSAS 17. Particularly, the above valuation approach utilised a combination of two (2) approaches, wherein land value was determined through the comparison method, whereas the building value was calculated based on the current construction costs adjusted by heritage factors (50 to 70%), such as rare materials and architectural significance and less accumulated depreciation. Moreover, this study identified a total of seven (7) critical valuation dimensions, including aesthetic value and national significance, and highlighted that, although the physical structure depreciated, the heritage significance would not. In essence, the present research advocated for a national heritage valuation guideline and multidisciplinary collaboration to guarantee that financial reporting would accurately reflect the service potential and cultural stewardship of the assets of the nation.

This article is part of a research on *Penentuan Kaedah Penilaian dan Pengukuran Aset Ketara Warisan bagi Kerajaan Persekutuan Malaysia* through *Geran Penyelidikan Perakaunan dan Kewangan Sektor Awam Tahun 2025* (JANM.600-20/1/7 Jld. 2 (42)).

Keywords: Government-owned heritage buildings, valuation for accrual accounting, public sector accounting, Malaysian Public Sector Accounting Standards (MPSAS), Malaysian Valuation Standards (MVS)

1.0 Introduction

The preservation and accurate valuation processes of government-owned heritage buildings in Malaysia have presented a multifaceted challenge, particularly owing to the inherent difficulties in applying conventional valuation methodologies to non-market goods, wherein the heritage buildings, which often lack direct market transactions, necessitate alternative approaches that can adequately capture their multifaceted values through social, cultural, historical, and economic dimensions (Iida & Fukushige, 2025). The above complex situation has been further exacerbated by the limited financial capacity of local planning authorities for initiatives related to conservation and preservation, which reflects the urgent need for more robust and sustainable valuation frameworks (Azmi et al., 2018). Hence, the current study aimed to critically examine existing valuation methods and propose an integrative framework, which was tailored to the unique context of heritage assets in Malaysia, thereby addressing the existing gap in the current literature, namely, the requirement for a more holistic and sustainable model for the management of heritage property in developing nations (Azmi et al., 2018). Accordingly, government-owned heritage buildings, including historical buildings, monuments, and archaeological sites, represent invaluable cultural capital that extends beyond economic values, hence necessitating the valuation process of the above buildings using a more distinctive approach, as the heritage buildings hold architectural, cultural, historical, and social significance. Specifically, an effective process of valuation should capture not only their physical attributes but also their social, economic, and symbolic values that can help strengthen local identity and support sustainable development. Thus, a proper process of valuation serves as a vital tool for governments, planners, and conservation authorities in guiding the procedures of preservation, funding, and policymaking, as the heritage buildings embody the collective memory and identity of the nation, hence indicating the importance of accurate and context-sensitive valuation in more effectively safeguarding the buildings for future generations.

According to Mohamad et. al (2021), heritage properties can generally be categorised into two (2) primary groups based on ownership and purpose, namely public heritage buildings, which are managed by governmental agencies and preserved for cultural continuity, and private heritage buildings, which are maintained by individuals or corporations for commercial, tourism, or conservation purposes. Furthermore, there has been growing interest in the valuation of heritage properties among existing scholars, particularly in determining the most appropriate methodologies for assessing the multifaceted value dimensions of the properties (Iswari & Mediawati, 2024a; Dragouni, 2022; Ouda, 2014). Despite the growing attention, the appraisal of heritage buildings remains an enduring challenge, due to their unique characteristics and non-market nature relative to conventional real estate (Aversano & Caterina, 2012; Bakri et al., 2012; Barton, 2000). Specifically, heritage properties have rarely been transacted on open markets, which has rendered the properties difficult to establish comparable market evidence or apply standard valuation techniques. In addition, the distinctiveness and cultural specificity of the heritage properties have introduced complexities that conventional models, which have been primarily designed for income-generating or market-traded buildings, often fail to adequately address the current challenges. In a review, Mohamad and Ismail (2019) identified several recurring challenges associated with the valuation of heritage buildings in both theoretical and applied contexts and discovered a total of four (4) critical issues. In particular, there were profound conceptual intricacies in defining and classifying heritage buildings while accounting for multidimensional values, including aesthetic, architectural, social, historical, and spiritual significance (Aversano & Caterina, 2012; Throsby, 2001), coupled with the limitations of traditional statistical and market-based methods, which could not effectively capture essential intangible and non-use values, such as intrinsic, bequest, and symbolic importance (Ruijgrok, 2006; Mourato & Mazzanti, 2002).

Apart from the above two (2) issues, there were major concerns about the effectiveness of the current valuation approaches, in which existing methodological inconsistencies and a lack of cultural indicators often yielded unreliable or incomparable results across jurisdictions (Dragouni, 2022; Iswari & Mediawati, 2024b). Additionally, the valuation process was hindered by limited data availability, which constrained the quantification of heritage-related benefits owing to an absence of relevant information on the key aspects, including conservation costs, physical conditions, and community perceptions (Bakri et al., 2012; Ouda, 2014), originating from the multifaceted nature of heritage, namely, transcending physical form and encompassing emotional, intangible, and communal values (Throsby, 2001).

As a result, conventional methods, such as the historical cost approach, are not effective in the valuation process of heritage buildings, as the above methods will record assets only at their acquisition cost, thereby disregarding appreciation, uniqueness, or symbolic worth (Mourato & Mazzanti, 2002). Similarly, market-based valuation methods, which rely on comparative sales, are impractical for government-owned heritage properties that are not actively traded (Ruijgrok, 2006). Therefore, valuation outcomes have frequently varied substantially depending on the methodological assumptions and available data, which highlights the need for hybrid or multi-criteria frameworks that can effectively incorporate cultural, economic, and social indicators to more accurately represent the full value of heritage buildings (Mohamad, Ismail & Mohd Nasir, 2021; Dragouni, 2022; Iswari & Mediawati, 2024a).

1.1 Issues and Challenges in Valuing Public-Owned Heritage Buildings in Malaysia

The process of valuing government-owned heritage buildings in Malaysia requires a tailored approach that can more accurately reflect their cultural, historical, and architectural significance. Contrary to commercial properties, heritage buildings are maintained for public benefits rather than profit generation, hence highlighting that the above buildings often lack active markets and measurable income streams and the use of conventional valuation methods, including the market or income approach, is unsuitable. In practice, Malaysian valuers tend to adopt the cost approach, which estimates the replacement or reproduction cost while adjusting for depreciation, aligned with public-sector priorities of transparency, accountability, and stewardship to guarantee that heritage buildings are appropriately recognised within the existing frameworks of financial reporting and urban policymaking (Iswari & Mediawati, 2024a). Nevertheless, valuing the heritage properties remains inherently complex, due to both tangible and intangible elements that influence their worth.

Table 1: Key Challenges and Implications for Valuing Public-Owned Heritage Buildings in Malaysia

Key Challenge	Description	Implication for Malaysia Valuation Practices
Lack of Market Comparables	Heritage buildings are rarely traded, and no recent sales data exist for benchmarking.	Valuers must rely on subjective estimation, hence limiting valuation accuracy and comparability across public agencies. Alternative models, such as cultural value indexing or qualitative scoring, are required.
No Income Generation	Most public heritage buildings do not produce financial returns or cash flows.	The income approach becomes impractical, and valuers must justify preservation costs through non-financial benefits, such as cultural identity, educational impact, and tourism value.
Estimating Replacement or Reproduction Cost	Original materials and techniques are often unavailable or obsolete, rendering cost estimation difficult.	Replacement cost calculations become speculative, in which reproduction estimates must include intangible authenticity, heritage-grade materials, and restoration craftsmanship.
Depreciation Complexity	Heritage buildings do not follow normal depreciation patterns and may appreciate in cultural value over time.	Requires modified depreciation models that consider functional wear and cultural appreciation simultaneously, whereas standard accounting methods risk misrepresenting true asset value
Intangible Cultural and Symbolic Values	Emotional, social, and historical significance cannot be easily monetised.	Financial valuation must be complemented by qualitative assessment tools and stakeholder consultation to capture cultural impact beyond economic indicators.
Compliance with Standards	MPSAS 17 and MVS 2025 lack detailed guidelines for the valuation of heritage assets.	Inconsistent valuation practices among governmental departments require a national heritage valuation framework for valuing heritage buildings in Malaysia.
Need for Multidisciplinary Collaboration	Valuation requires inputs from multiple experts, including valuers, historians, conservationists, and engineers.	Ensures holistic and credible valuations, yet increases costs and duration, hence calling for institutionalised collaboration mechanisms within existing governmental valuation processes.

Valuing heritage buildings in Malaysia has presented several key challenges, including the absence of market comparables, owing to infrequent transactions, which has compelled valuers to depend more on subjective estimation and alternative models. As most government-owned heritage buildings will not generate any income, traditional financial valuation methods, such as the income approach, are unsuitable, thereby requiring a higher emphasis on non-financial benefits, including cultural identity and tourism. Furthermore, the estimation process of replacement or reproduction costs is complicated by the use of obsolete materials and construction methods, whereas depreciation models should account for both physical wear and potential cultural appreciation. Moreover, intangible cultural and symbolic values are difficult to monetise, which necessitates qualitative and participatory assessment approaches. The absence of detailed guidelines in MPSAS 17 and MVS has also led to inconsistent practices, which require a national framework that is aligned with International Public Sector Accounting Standards (IPSAS 45). In addition, accurate valuation depends on multidisciplinary collaboration among valuers, historians, engineers, and conservation experts, which, despite being essential for credibility, will increase the cost and duration of the process.

2.0 Literature Review

Valuing government-owned heritage buildings involves a complex process that extends beyond traditional market-based valuation methods, as the process requires an interdisciplinary approach that can effectively incorporate cultural, social, and economic perspectives to capture their intangible historical and symbolic significance.

2.1 Factors Influencing the Valuation of Government-Owned Heritage Buildings in Malaysia

The valuation process of government-owned heritage buildings in Malaysia represents a vital linkage between public-sector financial accountability and cultural heritage preservation. As guided by the MPSAS 17 and the Public-Sector Transformation Policy (2018), the shift towards an accrual-based accounting framework since 2018 has sought to enhance transparency, accountability, and fiscal management within the public sector. In the above setting, the valuation of heritage buildings transcends monetary considerations, as it acknowledges their cultural, historical, and social importance as the key components of the collective identity of the nation (Rosli & Kamaluddin, 2024). Contrary to ordinary tangible buildings, heritage properties possess intangible attributes, such as craftsmanship, architectural symbolism, and cultural meaning, that challenge the application of traditional valuation techniques (Ho, 2019; Duval et al, 2019). Hence, Malaysian valuers are encouraged to employ a multidimensional and context-sensitive approach, which encompasses both tangible and intangible aspects, including national significance, design, building specifications, aesthetic quality, size, structural conditions, and maintenance standards (Chin et al., 2021; Mohamad & Ismail, (2019); Sesana et al, 2021), hence guaranteeing that valuation practices not only comply with accounting requirements but also honour the heritage value and stewardship obligations entrusted to public authorities. Table 2 summarises the principal valuation dimensions and their conceptual foundations as reflected in the current Malaysian and international literature.

Table 2: Factors Influencing the Valuation of Government-Owned Heritage Buildings in Malaysia

Aspect/ Topic	Description	Key Reference
Design	Malaysian heritage buildings display Malay, colonial, Chinese, and Islamic architectural styles, which constitute part of their identity and historical significance, with the architectural design influencing valuation due to its uniqueness and impact on restoration or reproduction cost.	Chun et al. (2005)
Building Specification	Involves materials, construction techniques, and finishes, such as chengal wood, lime plaster, and terracotta tiles, that are currently rare or costly. Hence, valuers should consider the availability and expense of replicating the above elements when estimating replacement or restoration costs.	Sandeford (2005)
Aesthetic Value	Refers to the visual and artistic appeal, including decorative details, craftsmanship, and symmetry. In Malaysia, landmarks, such as the Sultan Abdul Samad Building and Cheong Fatt Tze Mansion, hold profound aesthetic value, which can contribute to higher degrees of public appreciation and tourism potential even without direct financial returns.	Chin et al. (2021)

Table 2: Factors Influencing the Valuation of Government-Owned Heritage Buildings in Malaysia (continued)

Aspect/ Topic	Description	Key Reference
Building Size	The size and scale of a heritage building influence both its functional use and maintenance costs. Larger structures, such as colonial government complexes, necessitate more resources for restoration and preservation.	Jamal et al. (2022)
National Value	Multiple heritage buildings serve as symbols of national identity, which is linked to historical events and cultural heritage. For example, Merdeka Stadium symbolises national independence, and this intangible national value can strengthen collective memory and cultural pride, even if not monetarily quantifiable.	Hasif Rafidee (2015)
Structural Intactness	The physical conditions of heritage buildings determine the current value and restoration needs. Due to the humid and tropical climate in Malaysia, buildings are prone to deterioration from termites and monsoons. Assessing foundations, walls, and roofs can help estimate conservation costs and remaining life.	Sesana et al. (2021)
Quality Maintenance	Ongoing and historical maintenance quality will influence longevity and valuation, wherein effective care by relevant agencies, especially Jabatan Warisan Negara, can assist in sustaining heritage integrity, with valuers frequently considering routine upkeep costs, the availability of skilled conservators, and long-term preservation sustainability.	Esraa & Meervat (2023)

2.2 Laws Related to Heritage Property and Valuation Practices in Malaysia

In Malaysia, the National Heritage Act 2005 (Act 645) functions as the fundamental legal framework for the identification, protection, and conservation of tangible heritage properties. Tangible heritage, as defined under the Act, encompasses all physical, visible, and touchable elements that embody the cultural and natural legacy of Malaysia, which includes heritage buildings, monuments, archaeological sites, and natural landscapes that reflect the historical and architectural identity of the nation. In line with international conventions, such as the UNESCO World Heritage Convention (1972), the Act incorporates both cultural and natural dimensions and emphasises the importance of holistic heritage management and sustainable conservation. Additionally, under the National Heritage Act 2005 (Act 645), Malaysian heritage is classified into four (4) main categories, namely, heritage site, heritage object (tangible or intangible), underwater cultural heritage, and living persons, which have been gazetted for protection based on cultural, historical, or natural significance, with national heritage representing the highest status:

i. **Heritage Site:** Immovable heritage, including areas, places, zones, monuments, buildings, archaeological reserves, gardens, and trees.
ii. **Heritage Object:** Movable items, including antiquities (above 50 years old), artefacts, and intangible cultural heritage, such as music, language, literature, and performing arts.
iii. **Underwater Cultural Heritage:** Submerged traces of human existence, including shipwrecks, artefacts, and structures, which are typically submerged for at least 100 years.
iv. **Living Person:** Individuals who are recognised for possessing exceptional knowledge or skills essential for creating or performing intangible cultural heritage.

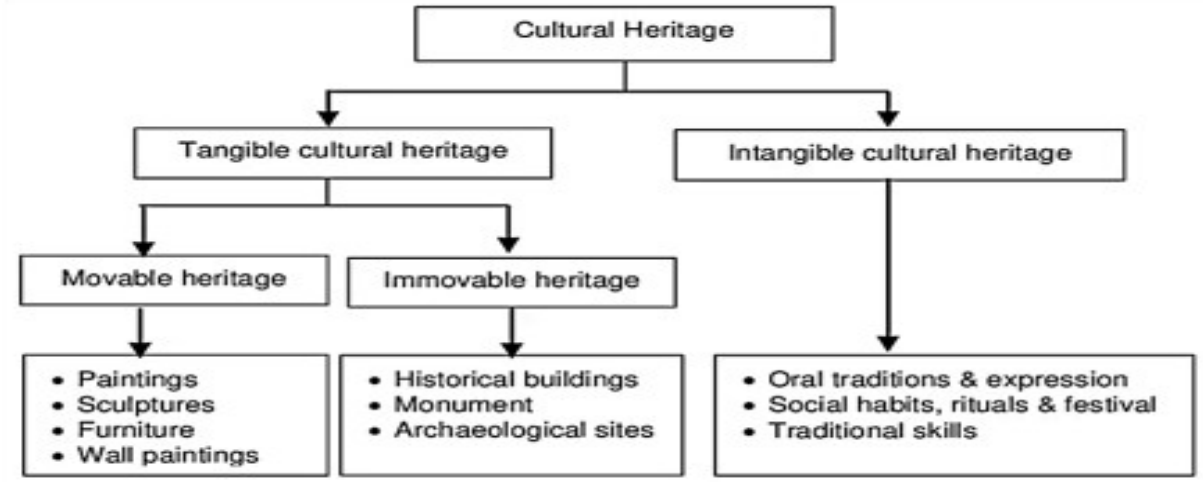

Figure 1: UNESCO Heritage Classification

Figure 1 presents a structured hierarchy of cultural heritage, which is categorised into tangible and intangible groups to distinguish between physical objects and living traditions, with tangible cultural heritage further classified into movable heritage, including transportable items such as paintings, sculptures, furniture, and wall paintings, and immovable heritage, which encompasses fixed structures such as historical buildings, monuments, and archaeological sites. Conversely, intangible cultural heritage involves non-physical attributes that define the identity of a community, including oral traditions, social habits, rituals, festivals, and traditional skills. In essence, the above classification provides the key conceptual foundation for identifying different types of assets, such as those defined under the National Heritage Act 2005, which require specialised valuation approaches for public-sector accrual accounting. Meanwhile, from a valuation perspective, the National Heritage Act 2005 primarily focuses on conservation and protection, with limited guidance on how such properties should be valued for financial reporting, compensation, or redevelopment purposes. Table 3 depicts the Malaysian laws and regulations related to heritage property valuation. Notwithstanding, the current legislative gap has frequently rendered Malaysian valuers in a challenging position when determining the economic, cultural, and social value of heritage buildings, wherein valuers are often required to rely on professional judgment and adapt existing valuation standards to account for the intangible significance and non-market attributes of the heritage properties.

Table 3: Malaysian Laws and Regulations Related to Heritage Property Valuation

Law/ Regulation	Relevance to Heritage Property Valuation
National Heritage Act 2005 (Act 645)	Focuses on the protection and preservation of heritage buildings, and also defines and classifies tangible and intangible heritage. Nonetheless, the Act lacks explicit valuation procedures, hence rendering valuers to interpret heritage significance within conventional property frameworks.
Town and Country Planning Act 1976 (Act 172)	Regulates development activities involving heritage properties, with local authority approval required for any alteration or reconstruction to ensure the preservation of the façade and historical character, which are factors that will directly influence the market value and development potential.
Local Government Act 1976 (Act 171)	Empowers local authorities to oversee the maintenance and repair of heritage buildings, and maintenance obligations may increase ownership costs and influence the depreciated replacement cost (DRC) or investment value of heritage buildings.
Malaysian Valuation Standards (MVS) (BOVAEP, 2025)	Provides the general framework for property valuation, yet lacks specific methodologies for heritage buildings. Therefore, valuers must use relevant principles, such as the cost approach or market comparison, with substantial adjustments to reflect heritage restrictions and uniqueness.
Malaysian Public Sector Accounting Standards (MPSAS 17)	Defines heritage buildings as properties with historical, cultural, or environmental significance and acknowledges that market-based valuation may be impractical, which allows for non-financial or nominal value recognition to reflect public benefit and stewardship obligations.

2.3 Heritage Asset for Accrual Accounting

Heritage buildings are recorded under Heritage Assets (A1900000 is an account code used in the Malaysian Public Sector chart of accounts), which represent items of historical, cultural, artistic, technological, or environmental significance that can contribute to the collective knowledge and cultural identity of the nation. Accordingly, the heritage buildings are classified separately, as it is challenging to determine their precise financial value, owing to their unique and irreplaceable nature. Notably, the value of heritage buildings may increase in the long term, contrary to typical assets that depreciate. As stated in Accrual Accounting Policies and Interpretations (Revised January 2026):

> "Heritage asset shall be recorded in the accrual ledger if it is gazetted under the National Heritage Act 2005. If cost is available, it shall be measured at cost. If it is impractical to determine the cost, it shall be measured at the nominal cost of RM1." (Accountant General's Department of Malaysia, 2017).

Within Account Class A1900000, there is a specific element recognised as Heritage Buildings (1932000), which is recorded separately from other heritage buildings to guarantee more transparent and detailed reporting, supported by Category A4600000, namely, Accumulated Impairment of Heritage Assets, mainly to account for the total impairment of all assets categorised as heritage assets that are held for their cultural, environmental, or historical importance. In accordance with MPSAS 21, the Impairment of Non-Cash-Generating Assets is defined as a loss in the future economic benefits or service potential of an asset, apart from the systematic recognition of such loss through depreciation, which suggests that if a heritage building suffers damage or a reduction in its functional, historical, or cultural value, the building must be recorded as an impairment to accurately reflect the actual conditions of the asset in public-sector financial statements.

2.4 Valuation of Public-owned Heritage Buildings for Public Accounting in Malaysia

The MPSAS, which are aligned with the IPSAS, require governmental entities to prepare accrual-based financial statements that can more accurately reflect the actual value of public assets, such as land, buildings, infrastructure, and heritage properties. In particular, the valuation approaches under MVS 7, namely the market, income, and cost Approaches, play a critical role in supporting asset recognition, measurement, and disclosure (Malaysian Valuation Standard, 2025), as illustrated in Table 4. Specifically, the valuation process of public assets in Malaysia utilises three (3) primary approaches to guarantee full compliance with the MPSAS, in which the market approach is employed for properties with active market comparables, hence aligning with the fair value requirements of MPSAS 17 and MPSAS 16, whereas for investment or revenue-yielding assets, such as leased properties and concession-based facilities, the income approach is applied, thereby supporting standards, such as MPSAS 16, MPSAS 13, and MPSAS 21. Meanwhile, the cost approach has been widely adopted for specialised and non-cash-generating infrastructure, including schools, hospitals, and roads, especially when market or income data are unavailable, thus ensuring higher consistency with MPSAS 17, MPSAS 31, and MPSAS 32. Collectively, the above three (3) methodologies provide a more reliable and transparent framework for asset valuation, which can assist in fulfilling the financial reporting obligations of the public sector.

Table 4: Valuation Approach and Its Application in Public-Sector Accounting

Valuation Approach	MPSAS Applied	Typical Use in the Public Sector
Market/ Comparison	MPSAS 17, MPSAS 16	Land, buildings with active market sales, such as office buildings and land
Income	MPSAS 16, MPSAS 13, MPSAS 21	Investment properties, leased buildings, and revenue-generating assets, including office buildings that rent out to other parties
Cost	MPSAS 17, MPSAS 31, MPSAS 32	Infrastructure, specialised buildings, and non-cash-generating assets, such as heritage buildings

2.4.1 Market Approach

The market or comparison approach, as denoted in the MVS 2019, determines property value by comparing recent transactions of similar buildings conducted under open-market and independent conditions (Mohamad & Ismail, 2019; BOVAEP, 2025), which adheres to the principle of substitution and assumes that a rational buyer would not pay more for a property than the price of an equivalent alternative. Accordingly, adjustments are performed for variations in size, location, tenure, and condition to ensure a higher level of comparability (Raja Ariffin et al., 2021). Under the MPSAS, notably MPSAS 17: Property, Plant and Equipment and MPSAS 16: Investment Property, the market approach offers the most reliable estimate of fair value for properties with active markets, which is particularly applicable to government-owned office buildings, staff quarters, or investment properties that are situated in areas with more transparent pricing (Hassan et al., 2016). For compliance purposes, valuers should ground their analysis on verifiable market data, including recent transactions recorded by the Valuation and Property Services Department (JPPH) or auction results, ensuring evidence-based and auditable valuations consistent with international standards (Junainah, 2018).

2.4.2 Income Approach

The income approach, which is outlined in MVS 7 and aligned with MPSAS 16 and MPSAS 13 (Leases), estimates value based on the present worth of expected future income or cash flows, which is primarily applied to income-generating public buildings, such as government-leased offices, markets, or public private partnership (PPP)-managed facilities (Adamus, 2023). Particularly, the method involves forecasting net annual income, deducting operational costs, and applying an appropriate capitalisation or discount rate derived from market evidence (Ribera et al., 2020). Nevertheless, in the Malaysian public sector, the above approach is less common due to the non-revenue characteristics of most governmental buildings, including hospitals, schools, and museums. Notwithstanding, the approach remains important for revenue-yielding properties or concession-based infrastructure projects, wherein periodic income is measurable (Iswari & Mediawati, 2024b). When the approach is employed under MPSAS 21 (Impairment of Non-Cash-Generating Assets), it can help estimate the service potential of an asset, thereby supporting more transparent financial reporting and asset management.

2.4.3 Cost Approach

The cost approach has been the most widely used method for the valuation of heritage and public-sector properties in Malaysia, owing to its transparency and consistency (Mohamad et al., 2015), which estimates value based on the current replacement or reproduction cost and less accumulated depreciation, especially appropriate when market or income data are unavailable, often the case for heritage buildings, such as the Stadthuys in Melaka or Bangunan Sultan Abdul Samad. Under MPSAS 17, MPSAS 31 (Intangible Assets), and MPSAS 32 (Service Concession Arrangements), the cost approach provides a defensible measure of the value of public assets by reflecting restoration costs and asset stewardship obligations (Hassan et al., 2016). Depreciation factors, such as physical wear, functional obsolescence, and economic decline, are assessed according to useful life and service potential. In essence, as heritage properties rarely generate income or have comparable market data, the cost approach can aid in guaranteeing a fairer representation of value, while supporting governmental accountability and long-term conservation planning (Albu, 2021; Augustiniok et al., 2022).

3.0 Methodology

The current study employed a qualitative research design, namely, semi-structured interviews and FGDs, to explore expert perspectives on the valuation process of government-owned heritage buildings in Malaysia. Specifically, the use of semi-structured interviews was essential for capturing the expert opinions and field experiences among a total of 21 senior practitioners, who were typically not available in standard surveys or document reviews. By engaging representatives from 14 diverse organisations, including governmental agencies such as Jabatan Tanah & Survei Sarawak and private firms such as Knight Frank, the above method offered in-depth insights into the current practices and practical weaknesses within the Malaysian context. Concurrently, the interviews allowed respondents to exercise professional judgment in identifying the necessary valuation guidelines and benchmarking optimal practices for the valuation process of heritage properties. Meanwhile, the FGDs were conducted to facilitate collective reflection and establish professional consensus among a total of 48 multidisciplinary participants across Melaka, Penang, and

virtual platforms, which was important for bridging the gap between various stakeholders, such as valuers, historians, conservationists, and engineers, to guarantee a more holistic and credible valuation framework. Furthermore, the FGDs allowed the current researchers to capture regional variations in administrative frameworks and align practical insights with the specific requirements of accrual accounting under MPSAS 17.

3.1 Semi-Structured Interview

The current study adopted semi-structured interviews to obtain in-depth perspectives on the current practices, challenges, and recommendations related to the valuation of heritage properties in Malaysia. Specifically, the interview method was selected, as it enabled respondents, who were experienced valuation practitioners and officers from various agencies, to share their expert opinions, field experiences, and professional judgment that might not be captured through surveys or document reviews. The interviews were conducted with all 21 respondents during a discussion session with participants of the Valuation of Heritage Properties course held in Melaka (see Table 5), coupled with 14 organisations that participated in the interview session, thus collectively providing a total of 21 respondents. The highest number of respondents originated from two (2) governmental agencies, namely Jabatan Tanah & Survei Sarawak (four (4) respondents) and Dewan Bandaraya Kota Kinabalu (three (3) respondents), with the remaining 12 organisations each contributed either one (1) or two (2) respondents, thereby representing a variety of governmental bodies (Majlis Bandaraya Pulau Pinang and Majlis Perbandaran Sepang), an academic institution [Universiti Teknologi MARA (UiTM) Seri Iskandar], a prominent utility company (Tenaga Nasional Berhad), and a diverse group of private firms, wherein numerous of the above were recognised as real estate firms, such as Knight Frank Property Management Sdn Bhd and Rahim & Co International Sdn Bhd. Collectively, the interviews sought to gather the respondents' viewpoints regarding practical weaknesses in valuation practices in Malaysia, benchmarking optimal practices, and offering suggestions for the necessary valuation guidelines for heritage properties in Malaysia. The participants consisted of officers from federal governmental agencies, state government, universities, and the private sector.

Table 5: Respondents for Semi-Structured Interviews

No.	Organisation	Number of Respondents
1.	Jabatan Tanah & Survei Sarawak	4
2.	Dewan Bandaraya Kota Kinabalu	3
3.	Majlis Bandaraya Pulau Pinang	1
4.	Majlis Perbandaran Sepang	1
5.	Universiti Teknologi MARA (UiTM) Seri Iskandar	1
6.	Knight Frank Property Management Sdn. Bhd.	2
7.	JFF Associate Sdn. Bhd.	1
8.	Jordan Lee & Jaafar (M'CCA) Sdn. Bhd.	1
9.	Rahim & Co International Sdn. Bhd.	2
10.	IVPS Property Consultant Sdn. Bhd.	1
11.	Mohd Nor & Partners (Kajang Sdn. Bhd.)	1
12.	Tenaga Nasional Berhad (Property Services Department)	1
13.	JAZ International Malaysia Sdn. Bhd.	1
14.	Azmi & Co. (Johor)	1
	Total	**21**

3.2 Focus Group Discussion (FGD)

The FGDs were conducted in this study to bridge the methodological gap in valuing government-owned heritage buildings, wherein conventional market-based data were scarce or non-existent. As such, the above approach allowed the current researchers to elicit expert perspectives, collective reflections, and professional consensus from a multidisciplinary group, including valuers, architects, and policymakers, to address the conceptual complexity and intangible values,

namely, historical, aesthetic, and symbolic, inherent in heritage properties. By engaging stakeholders across regions, such as Melaka and Penang, the FGDs facilitated the identification of practical challenges and the validation of the cost approach as a defensible framework for accrual accounting under MPSAS 17. In essence, the qualitative method was essential for developing a standardised and multidisciplinary framework, which could help balance financial accountability with the cultural stewardship of Malaysian public assets. Moreover, the FGD approach was chosen for its ability to elicit in-depth perspectives, collective reflections, and professional consensus among practitioners, policymakers, and technical experts who were involved in property valuation and heritage management. Table 6 illustrates the composition of 48 respondents who participated in the FGD sessions across Melaka, Penang (conducted via a hybrid mode), and the virtual platform. Specifically, a total of 15 participants participated in the Melaka session, 19 attended the Penang session, and 14 joined online, which represented a diverse range of agencies, including federal ministries (Ministry of Finance (MOF), Ministry of Tourism, Arts, and Culture Malaysia (MOTAC), Jabatan Akauntan Negara Malaysia (JANM), Ministry of National Unity (KPN), National Heritage Department (JWN), local authorities, heritage organisations, universities, professional valuers, conservation specialists, and international organisations, such as the International Council on Monuments and Sites (ICOMOS) Malaysia. The largest contributor was the JPPH, namely, nine (9) participants across all sessions, followed by MLP Valuation Sdn. Bhd. with five (5) respondents, whereas other agencies contributed between one (1) and four (4) representatives, which reflected a broad degree of institutional involvement in the management process of heritage assets of the country.

Three (3) FGDs were conducted at different heritage-rich states, namely, Melaka, Penang, and online platforms, to capture regional variations in heritage valuation practices and administrative frameworks. Accordingly, both sessions aimed to identify challenges, gaps, and optimal practices in valuing heritage properties, particularly those under governmental ownership or protection. The discussions also sought to align relevant insights with the conceptual framework of MPSAS 17 (Property, Plant, and Equipment), which governed the recognition and measurement of heritage buildings in the public-sector accounting system in Malaysia. According to Table 7, a total of 48 participants from 25 governmental agencies and stakeholder groups participated in the FGDs conducted across three (3) modes and locations, namely, Melaka (15 participants), Penang (19 participants), and virtual or online platforms (14 participants). As a result, the FGDs gathered a diverse range of federal agencies, state-level authorities, heritage experts, valuation professionals, and industry representatives, which provided a more holistic view of issues concerning heritage asset management, valuation, and conservation practices in Malaysia.

Table 6: Summary of Respondents Composition in FGD Sessions

Agency/ Institution	Melaka	Penang	Virtual	Total
Valuation and Property Services Dept. (JPPH)	3	2	4	9
Melaka Historic City Council (MBMB)	2	-	-	2
Penang Island City Council (MBPP)	-	2	-	2
Public Works Department (JKR)	2	-	-	2
National Heritage Department (JWN)	-	4	-	4
Alor Gajah District & Land Office, Melaka	1	-	-	1
IM Global Melaka	1	-	-	1
The Heritage of Malaysia Trust (BWM)	1	-	-	1
JVV International Kota Syahbandar, Melaka	1	-	-	1
NTQT Sdn Bhd (Registered Conservator)	1	-	-	1
Centre for Conservation, Archaeology, Survey & Heritage Conservation Procedures (KASTURI), UTHM	1	-	-	1
IVPS Property Consultants Sdn. Bhd.	1	-	-	1
Wisma Rapid	1	-	-	1
Universiti Sains Malaysia (USM)	-	1	-	1
Universiti Malaya (UM)	-	1	-	1
Universiti Teknologi MARA (UiTM) Seri Iskandar	-	2	-	2

Table 6: Summary of Respondents Composition in FGD Sessions (continued)

Agency/ Institution	Melaka	Penang	Virtual	Total
PA International Property Consultants (Penang) Sdn. Bhd.	-	1	-	1
MLP Valuation Sdn. Bhd.	-	5	-	5
Henry Butcher (Penang) Malaysia Sdn. Bhd.	-	1	-	1
International Council on Monuments & Sites (ICOMOS) Malaysia	-	-	1	1
Ministry of Finance (MOF)	-	-	2	2
Ministry of Tourism, Arts and Culture Malaysia (MOTAC)	-	-	2	2
Accountant General's Department of Malaysia (JANM)	-	-	3	3
Ministry of National Unity (KPN)	-	-	2	2
Total	**15**	**19**	**14**	**48**

Table 7: Summary of Respondents' Positions in FGD Sessions

Position/ Institution	FGD 1	FGD 2	FGD 3	Total
	Melaka	Penang (Hybrid)	Virtual (Online)	
Heritage Commissioner	-	1	-	1
District Valuer	1	-	-	1
Valuer (Government)	3	2	4	9
Valuer (Private)	4	7	-	11
Conservation Architect	2	-	1	3
Planner (Senior Assistant Director)	-	1	-	1
Assistant Architect	-	1	-	1
University's Lecturer	1	5	-	6
Registered Conservator	1	-	-	1
Developer	1	-	-	1
Subdistrict Head (Taboh Naning State Constituency)	1	-	-	1
Assistant Engineer	1	-	-	1
Assistant Director, Heritage Register Division, National Heritage Department	-	1	-	1
Curator	-	1	2	3
Principle/ Chief Assistant Secretary (MOF)	-	-	2	2
Accountant (Public)	-	-	5	5
Total	**15**	**19**	**14**	**48**

3.2.1 FGD 1 in Melaka

The Melaka FGD consisted of a total of 15 participants, which encompassed representatives from the local authorities (LAs), registered valuers, an architect, a lecturer, and a contractor. The session was designed to explore the issues and approaches of valuation for heritage buildings owned by the government. Key themes emerged around:

i. The lack of specific valuation standards for heritage buildings under the current MVS framework
ii. Data scarcity on heritage property transactions, restoration costs, and material sourcing
iii. The need for harmonised inter-agency collaboration between the JPPH, JWN, and LAs

iv. The importance of heritage significance assessment, combining qualitative heritage values (historical, aesthetic, and symbolic) with quantitative valuation methods

Respondents in Melaka agreed that the cost approach employed for valuing government-owned heritage buildings was suitable, while emphasising training and certification for heritage valuers, the development of a national heritage database, and the formal inclusion of heritage valuation within the MVS.

3.2.2 FGD 2 in Penang

The FGD in Penang involved a total of 19 participants, who represented various professional and institutional backgrounds, including registered valuers, LA officers, academics, architects, and governmental valuation officers. The FGD was conducted via a hybrid mode, wherein a majority of the participants attended on-site, while the remaining five (5) participants attended via a virtual platform. The participants were selected through purposive sampling, which targeted individuals with direct experience in heritage property valuation, conservation planning, or policy formulation, with discussions focused on:

i. The practical challenges in applying conventional valuation methods to heritage properties
ii. The ambiguities in existing guidelines under the MVS
iii. The requirement for an integrated multidisciplinary approach, which incorporated historical, architectural, and legal dimensions

The key findings revealed that practitioners in Penang primarily relied on a combination of market and cost approaches, which were adapted with heritage-sensitive adjustments. The respondents also highlighted the absence of standardised national guidelines and limited databases for heritage property transactions, which hindered consistent valuation practices. Numerous participants advocated for capacity-building through continuing professional development (CPD) training consisting of certified heritage valuation training and the creation of a centralised heritage property database to help contribute to higher degrees of transparency and comparability for the FGD in Penang.

3.2.3 FGD 3 (Online)

The online FGD comprised a total of 14 participants representing key federal governmental agencies and stakeholders involved in the management process of heritage assets. Conducted virtually, the session effectively engaged officers from the MOTAC, JANM, KPN, ICOMOS, and representatives from the JPPH. The online format enabled a broader rate of participation from governmental agencies located beyond the physical FGD venues, thus ensuring higher levels of inclusivity and more holistic representation. In sum, their contributions offered valuable insights on policy alignment, financial reporting, cultural governance, and valuation practices, hence complementing the FGD results gathered from the Melaka and Penang sessions.

3.3 Data Collection and Analysis

Each FGD lasted approximately 90 to 120 minutes and was moderated by the researcher with assistance from two (2) note-takers. All discussions were audio-recorded with participants' consent before being transcribed verbatim subsequently. The thematic analysis was employed to identify recurring patterns, which were categorised into four (4) major themes:

i. Conceptual understanding of government-owned heritage buildings
ii. Practical challenges in valuation and data availability
iii. Institutional and legal constraints
iv. Recommended methodological adaptations

Triangulation was achieved by comparing and cross-referencing the results from each FGD with the documentary analysis of valuation standards, national heritage legislation, and MPSAS reporting guidelines, which established the substantial linkages between interview findings, FGDs, and document analysis and guaranteed that the proposed valuation framework was both legally compliant and practically feasible.

3.3.1 Identifying Practical Gaps and Challenges

The document analysis of the MVS and MPSAS 17 initially revealed a lack of specific and detailed guidelines for government-owned heritage buildings, which often led to the use of a nominal RM1 value in accounting records. To address the above legislative gap, semi-structured interviews and FGDs provided critical on-the-ground evidence of the systemic weaknesses faced by practitioners. Although the documents stipulated the broad parameters, the primary data from interviews and FGDs highlighted the reliance on subjective estimation and the urgent requirement for a standardised framework to replace inconsistent practices.

3.3.2 Validating the Methodological Shift

The document analysis of Accrual Accounting Policies highlighted that assets should be measured at cost or a nominal value of RM1 if the cost was impractical to determine (Accountant General's Department of Malaysia, 2025). Nevertheless, the results from the FGDs in Melaka and Penang established a professional consensus that the nominal approach was insufficient for modern financial accountability and asset stewardship, hence leading to a linkage where interview insights regarding professional judgment were utilised to justify adapting the cost approach, namely, a method recognised in documentation for specialised assets to specifically reflect the reproduction and conservation burden of heritage buildings.

3.3.3 Developing the Valuation Formula

The proposed valuation formula represented the final incorporation of technical data from documents and qualitative adjustments from expert discussions, wherein the document analysis provided the objective technical base, such as the cost data of the Public Works Department (JKR), which were subsequently linked to the findings from the FGDs, which identified the necessary Heritage Factors (adjusting costs by 50 to 70%) and additional specialist labour costs (15 to 35%) required for rare materials, such as chengal wood or lime plaster. The interview findings further validated the separation of land and building values, thereby ensuring the final formula would fulfil the specific requirements of accrual accounting.

3.3.4 Legal and Policy Alignment

The document analysis of the National Heritage Act 2005 (Act 645) offered the fundamental legal definitions and classifications for tangible heritage, such as monuments and archaeological sites, with the FGDs and interviews subsequently linking the above legal definitions to the practicalities of financial reporting under MPSAS 17 and IPSAS 45, thus ensuring that the proposed framework would not exist in a financial vacuum, but rather would honour the stewardship and preservation obligations that were mandated by national law and international charters.

4.0 Discussion of Findings

The current review synthesised existing scholarship on the valuation of tangible and public-owned heritage buildings and highlighted persistent methodological and institutional shortcomings. Specifically, valuing such buildings continued to be a global challenge, particularly in Malaysia, where there was conceptual ambiguity, inadequate accounting

integration, and institutional limitations that profoundly impeded consistent recognition and reporting. Moreover, the absence of a standardised heritage valuation framework, compounded by limited archival and market data, further constrained the reliable estimation of market and replacement values. According to the MVS, a valuation practice should include the purpose of valuation, the basis of valuation, the approach to valuation and adjustments of factors involved in the process of valuation. Meanwhile, for public-owned heritage properties, challenges were intensified by the need to capture service potential, restoration obligations, and non-market cultural value within financial assessments. In addition, a shortage of skilled heritage valuation professionals and the exclusion of conservation and maintenance costs from the current models contributed to inconsistencies in valuation practices, financial disclosure, and long-term policy planning within the public sector in Malaysia.

4.1 Challenges in Valuing Public-owned Heritage Buildings

The process of valuing heritage properties, particularly those owned by the government, presented complex challenges that differed substantially from conventional property valuation. Specifically, the heritage buildings embodied cultural, historical, and architectural significance that often transcended their economic functions, which suggested that their valuation was a multidimensional exercise. The results from FGDs conducted in Melaka and Penang revealed that valuers encountered numerous methodological, institutional, and technical barriers when assessing relevant buildings. The following section will outline seven (7) key challenges identified from the discussions, which reflect both systemic gaps and practical constraints within the current heritage valuation practices in Malaysia:

i. Lack of specific valuation standards for heritage buildings
ii. Ambiguity in definitions and overlapping jurisdictions
iii. Limited market and transactional data
iv. Difficulty in quantifying non-financial and cultural values
v. Legal and financial constraints related to conservation costs
vi. Absence of professional expertise among valuers
vii. Insufficient integration of aesthetic and historical significance

The process of valuing government-owned heritage properties presented complex challenges distinct from conventional valuation, as the heritage buildings held cultural, historical, and architectural significance that extended beyond economic values, thus requiring multidimensional assessments. The current results highlighted the importance of having a standardised and multidisciplinary framework to guarantee the transparent and consistent valuation process of government-owned heritage buildings in Malaysia.

4.2 Purpose of Valuation: Accrual Accounting

The main purpose of valuing heritage buildings for accrual accounting in the public sector is to ensure that government-owned cultural and historical buildings are properly recognised, measured, and reported in accordance with modern financial reporting standards, such as MPSAS 17 (Property, Plant, and Equipment) and IPSAS 45. Contrary to conventional assets, heritage buildings are held not for revenue generation, but rather for cultural identity, preservation, education, and public benefit. Nevertheless, under an accrual accounting system, all assets, regardless of their purposes, must be recorded to present a complete and transparent picture of governmental resources and stewardship responsibilities. In addition, valuation provides a quantifiable measure of the economic resources invested in the above assets, supports accountability in public expenditures, and strengthens the management of public-sector assets by helping ministries plan the budgets for maintenance, restoration, and conservation, while improving the current process of decision-making by allowing governmental agencies to compare asset conditions, prioritise funding, and justify preservation investments. Importantly, the valuation process can also support intergenerational equity, which will guarantee that the value and significance of heritage buildings will be formally documented, safeguarded, and reported for the benefit of future citizens. According to the MVS, the purpose of valuation is to provide an independent, objective, and professional opinion of the value of an asset at a specific date, based on the key characteristics of the asset, market conditions, and the intended use of the valuation. In sum, the MVS emphasises that every valuation should clearly

state its main purpose, as different purposes will influence the foundation of values, assumptions, methodologies, and reporting approaches.

Common purposes under the MVS include financial reporting, loan security, transaction (sale and purchase), compulsory acquisition, rating and taxation, insurance, asset management, statutory requirements, and litigation or dispute resolution. Hence, by defining the key purpose, the MVS will guarantee that the valuation process will reflect the actual basis of values, including the market value, fair value, and special value, apply appropriate methods, and fulfil the information needs of users, such as governmental bodies, financial institutions, corporations, or courts. Ultimately, the main purpose of valuation under the MVS is to ensure higher levels of consistency, transparency, and credibility in determining the actual value of the asset, which can allow all parties to rely on the valuation for informed decision-making. Additionally, valuing heritage buildings owned by the government in Malaysia requires a more nuanced approach that extends beyond conventional methods used for property valuation, as the heritage buildings are not only physical structures but also cultural symbols that embody the national history, identity, and architectural legacy. Owing to their unique characteristics and public significance, valuers should consider a range of factors that can more accurately reflect both tangible and intangible aspects of value. In the Malaysian context, pertinent elements such as traditional design, rare building specifications, aesthetic and symbolic value, structural integrity, and ongoing maintenance play a critical role in determining the value of heritage buildings.

4.3 Basis of Valuation: Existing Use

For government-owned heritage buildings, the appropriate basis of valuation is existing use, which has frequently been expressed in public-sector standards as the current operational value (COV) or depreciated replacement cost (DRC). Particularly, the basis recognises that heritage buildings are not held for sale, not traded in an open market, and not intended to generate commercial income, but instead serve public, cultural, administrative, and educational functions, which enables the valuation to reflect the value of the building in its present use and presumes that it will continue to provide the same level of service potential to the government and public. As heritage buildings have no active market and cannot be substituted with ordinary buildings, valuers typically adopt a cost approach, which incorporates:

i. Replacement or reproduction cost using heritage-grade materials and approved conservation methods,
ii. Restoration cost to transform the asset into its operational condition, and
iii. Depreciation adjustments, considering physical deterioration, functional constraints, and regulatory restrictions, while recognising that cultural value does not depreciate.

The above foundation will guarantee that financial reporting under public-sector standards (IPSAS 45 / MPSAS 17) will reflect the true operational importance of heritage buildings and support the transparent stewardship, budgeting, and long-term conservation planning of heritage assets.

4.3.1 Market Value (Fair Value)

Under IPSAS 45, the relevant measurement basis is fair value, which is aligned with International Financial Reporting Standards (IFRS 13). Nonetheless, for non-cash-generating public-sector assets, IPSAS 45 has often applied the COV, which is similar to existing use value in the public sector. Essentially, the market value in the IPSAS is the price that would be received to sell an asset in an orderly transaction between market participants at the measurement date. Meanwhile, heritage and public-sector assets rarely have an active market, and thus, the IPSAS allows measurement based on their continued service capacity, rather than market exchange.

4.3.2 Existing Use (COV)

In IPSAS 45, the closest equivalent to the existing use value is the COV, which represents:

> "The value of an asset to the entity, based on its current use, providing the same level of service potential."

The above definition indicates that the asset is valued not for sale, but rather for the service continued to be delivered in its present function. For heritage buildings owned by the government, the COV is typically employed, as such assets are:

i. Not held for sale
ii. Not used to generate commercial profits
iii. Preserved for cultural, educational, administrative, or public-service purposes

Although IPSAS 45 does not prescribe specific valuation methods, the COV may be estimated using appropriate valuation techniques, including the cost approach, especially replacement cost or depreciated replacement cost in situations where market and income data are unavailable (see Table 8).

Table 8: Suitability Between Market Value and Existing Use

Term	Meaning under IPSAS 45	Suitable For
Market Value/ Fair Value	Price from a hypothetical market sale between market participants	Assets with an active market
Existing Use (COV)	Value of the asset as it is used now, focusing on service delivery instead of sale	Government, public, and heritage buildings

4.4 Approaches to Valuation: Cost Approach

Pertinent approaches to valuation imply the methodology used to determine the fair market value of an asset, which is typically categorised into market, income, or cost approaches. Accordingly, the current analysis demonstrated a clear consensus that no single approach was universally suitable for valuing heritage properties when separating between land and building as required by accrual accounting, except for the cost approach, which was the primary valuation method utilised for recognising heritage buildings in the financial statements of the government under accrual accounting. The cost approach has frequently been applied, as heritage buildings rarely have an active market, are not bought or sold, and are preserved for their service potential, instead of their economic returns. Therefore, the value of the heritage buildings is based on the cost required to reproduce or replace the building, using materials, workmanship, and conservation techniques that comply with heritage regulations.

4.4.1 Reproduction Cost

The cost approach is a fundamental method in valuing heritage buildings, particularly when market evidence is limited or when assets are held for service potential rather than commercial gains. Under the current approach, valuers will assess the economic burden required to either recreate the heritage buildings in their authentic form or to construct a modern alternative that has similar functions. Particularly, replacement cost values a heritage building by estimating the current cost to construct a modern building with similar utility and service potential through contemporary materials and methods, whereas reproduction cost estimates the cost to rebuild the heritage building as a replica using original materials, craftsmanship, and architectural detailing. Although the replacement cost reflects authenticity, the method has rarely been applied, as heritage materials are scarce, restoration techniques are specialised, and costs are substantially higher. Concurrently, despite offering a more practical and cost-efficient estimate, replacement cost is not suitable when valuing a heritage building whose significance lies in its authentic materials, design integrity, and cultural identity. Therefore, heritage buildings are not valued purely for their functional utility, but rather for their historical, architectural, and symbolic attributes. Therefore, reproduction cost is selected, as it captures the true conservation burden required to preserve the original form of the asset. By estimating the cost of reconstructing the building through traditional materials, craftsmanship, and architectural detailing, the reproduction cost aligns with heritage-grade conservation principles, international charters, and national preservation standards that emphasise authenticity. Despite being more expensive and challenging due to scarce materials and specialised techniques, the approach provides a valuation that genuinely reflects the heritage significance of the building, hence rendering it the more appropriate approach for heritage buildings that must retain their original character.

4.4.2. Restoration and Conservation Cost

Heritage buildings often require specialised restoration work, with the process of valuation including:

i. Structural stabilisation
ii. Façade conservation
iii. Traditional material sourcing, including lime plaster and heritage timber
iv. Specialist labour, such as conservation architects and artisans

The above costs will guarantee that the asset is valued in a condition suitable for continued public use.

4.4.3 Depreciation Adjustments

After determining the total cost, valuers apply the depreciated replacement cost (DRC) to reflect:

i. Physical deterioration (wear and tear)
ii. Functional obsolescence (limitations due to old layouts or outdated systems)
iii. Economic obsolescence (regulatory restrictions, tourism fluctuations)

Meanwhile, cultural and land values do not depreciate, as depreciation only applies to the physical structure, instead of the heritage significance. The reasons that the cost approach is used for heritage buildings are as follows:

i. No active market exists, which suggests that the use of the market value is inappropriate
ii. Income is not generated, hence rendering the income approach unsuitable
iii. Heritage buildings are preserved for public service, rather than resale
iv. Accrual accounting requires recognising the service potential of assets, instead of their commercial value
v. Aligned with IPSAS 45 / MPSAS 17 guidance for specialised public-sector assets

In essence, in simpler terms, the cost approach will inform the government about:

> "How much would it cost today to rebuild, restore, or conserve this heritage building so it can continue serving the public?"

The approach will guarantee the asset is recorded at a value that more accurately reflects its operational importance, thereby contributing to higher transparency, more effective budgeting, and longer-term asset stewardship. In summary, the cost approach has been widely considered the most appropriate method for valuing government-owned heritage buildings in Malaysia, including museums, colonial administrative buildings, and mosques, as the approach estimates the current replacement or reproduction cost of the property and the cost to rebuild the building using materials, craftsmanship, and techniques of similar quality without depreciation, while providing a more objective and transparent valuation, especially when market or income data are unavailable. In line with MPSAS 17 (Property, Plant, and Equipment) and MPSAS 32 (Service Concession Arrangements), the above approach supports financial reporting by ensuring that the composition of heritage buildings reflects their actual restoration cost and conditions. Meanwhile, there have been challenges emerging in estimating authentic restoration expenses, as original materials and traditional construction skills may not be available in the contemporary era. Moreover, standard depreciation models are inadequate, as heritage buildings may appreciate in historical and cultural significance over time. Notwithstanding the above complexities, the cost approach remains the foundation for heritage valuation in Malaysia, which can aid in promoting stewardship, accountability, and heritage preservation.

4.5 Considerations Factors for Value Adjustment in Valuing Public-Owned Heritage Buildings

The adjustment of heritage property valuation requires multidimensional elements, which include both tangible factors (physical and structural) and intangible factors (design, aesthetic, historical, cultural, social, and legal). A valuation based solely on market data is inadequate, as it will not be effective in capturing the actual heritage significance of the heritage buildings. Accordingly, the FGD results highlighted that Malaysia should introduce a framework for national heritage value adjustment (refer to Table 9). In particular, the valuation of heritage buildings is shaped by several key factors, including distinctive architectural designs and rare traditional materials, which render restoration more expensive owing to specialised craftsmanship and sourcing challenges. Concurrently, aesthetic qualities contribute intangible cultural value, whereas larger building sizes increase maintenance needs and influence the rate of depreciation. Nationally significant buildings also hold symbolic value that can support heritage reporting even without market-based pricing, whereas structural conditions heavily influence restoration cost and remaining service potential. In addition, the overall quality of maintenance determines long-term value stability, with poor upkeep accelerating depreciation and reducing assessed worth.

Table 9: Factors and Valuation Implications Based on the Current FGDs

Factor	Description	Valuation Implication
Design	Distinctive Malay, colonial, Chinese, and Islamic architectural identities that are difficult to replicate.	Unique designs raise restoration and replacement costs due to specialised materials and craftsmanship.
Building Specification	Use of rare materials, such as chengal, lime plaster, and handmade tiles, that require skilled artisans.	Scarce materials increase restoration cost, and valuers must account for material replacement and conservation complexity.
Aesthetic Value	Strong visual appeal and craftsmanship that contribute to cultural pride and tourism.	Contributes to higher intangible value and may justify heritage premiums in public-sector valuation.
Building Size	Large structures necessitate higher maintenance and more complex restoration logistics.	Size affects restoration cost, depreciation, and adaptive-reuse potential.

4.6 Valuation Formula

4.6.1 Valuation formula for valuing government-owned heritage buildings:

Heritage building value = (A) Land + (B) Building

(A) Land	Land Value (based on comparison method, market value)
(B) Building	(+) New replacement building (building cost + financing cost + developer's profit
	(-) Building Depreciation
	Subject Property Value

*Source of Building Cost – JKR, JUBM & Arcadis Construction Cost Handbook, historical cost & comparable cost in the market

4.6.2 The detailed calculation in practice by the JPPH:

A) Land Value: Size (_____m²) @ market (RM____ per m²) - RM_____

B) Building Value

Construction Cost – Average Cost per Square Meter Based on JKR for the Current Year

1.	Base Price from JKR	- ____ per m²
2.	Add:Time/ Inflation Adjustment (ATHT Index)[1]	- ____ per m²
3.	Add: Location Adjustment (Locality Factor)	- ____ per m²
4.	Add: (Heritage Factors)[2] Design/ Aesthetics/ Architecture/ Building Materials/ Specifications	- ____ per m²

Additional Costs[3]

5.	Add: Piling Works	(5–10%)
6.	Add: Specialist Works	(15–35%)
7.	Preliminary Works	(5%)
8.	Add: Infrastructure / External Works	(5–15%)
9.	Add: Contribution Charges	(1–3%)
10.	Add: Management Cost	(3–5%)
11.	Add: Professional Fees	(5–7%)
12.	Add: Financial Charges	(5–8%)
13.	Add: Risk and Profit	(10–20%)

New Building Value	- ____ per m²
Less: Depreciation[4] (30%)	
Current Building Value	- ____ per m²

_____
[1] ATHT – *Angka Tunjuk Harga Tender* (JKR)
[2] (50–70%, assume 50%)
[3] Market/ Contractors' cost
[4] Depreciation based on the physical and functional conditions of the building

4.6.3 How does the Formula Operate?

The valuation of heritage properties using the cost approach requires a systematic breakdown of both land value and building value to guarantee a fairer, more transparent, and more defensible assessment, as heritage buildings often lack direct market comparables, in which valuers are required to depend on a more structured reconstruction-cost framework that can more accurately reflect the current construction prices, locality adjustments, heritage-specific design factors, and holistic contractor cost components. Subsequently, the above calculation is refined by applying appropriate depreciation to represent the actual physical and functional conditions of the building. The following sections will outline the full valuation workflow, which begins with the estimation of land value, followed by detailed components that constitute the replacement or reproduction cost of the building.

i. Land Value

The current aspect calculates the value of the land where the building is located:
- Size (m²): Total land area
- Market rate per m²: Current market price of land in that location
- Land Value = Size × Market Price per m²

The calculation will demonstrate the total market value of the bare land.

ii. Building Value

The current section estimates what it would cost to rebuild the building in the latest period by considering relevant construction specifications and heritage characteristics, and adhering to the cost data of the JKR:

a) Base Price from the JKR

The JKR publishes the average construction cost per m² for different types of buildings, which serves as the beginning point.

b) Inclusion: Time/ Inflation Adjustment (ATHT Index)

- ATHT = *Angka Tunjuk Harga Tender*
- The index adjusts historical JKR costs to reflect current-year prices, which ensures that the cost accurately reflects inflation and changes in the construction market

c) Inclusion: Location Adjustment (Locality Factor)

Costs will vary between states or cities. For instance, Kuala Lumpur is more expensive relative to a small town, which aligns the cost to the specific location of the building.

d) Inclusion: Heritage Factors (Design/ Aesthetics/ Materials/ Architecture)

Heritage buildings often include:
- Intricate design
- Special materials, such as chengal and lime plaster
- Artisanal workmanship
- Architectural uniqueness

The above aspects can increase the cost, and the typical adjustment is generally **50 to 70%**, with valuers typically using **50%**.

e) Additional Costs (5 to 13%)

Additional costs reflect the real-world construction costs of contractors, which are included as percentages of the adjusted construction cost:

- **Piling Works (5 to 10%)**

Additional foundation cost, especially for old sites or weak soil

- **Specialist Works (15 to 35%)**

For heritage buildings, repairing original features requires specialists.

- **Preliminary Works (5%)**

Site preparation, temporary structures, and safety measures

- **Infrastructure or External Works (5 to 15%)**

External drains, roads, landscaping, and utility connections

- **Contribution Charges (1 to 3%)**

Fees or statutory contributions to local councils

- **Management Cost (3 to 5%)**

The administrative and project management costs of a contractor

- **Professional Fees (5 to 7%)**

Architect, engineer, QS, and heritage consultant

- **Financial Charges (5 to 8%)**

Interest or financing costs during construction

- **Risk and Profit (10 to 20%)**

Contractor's margin and allowance for uncertainties

f) New Building Value

After including all the above components together, the cost to revamp the heritage building in the latest period will be obtained.

g) Less: Depreciation (30%)

The current aspect accounts for:
- Physical deterioration
- Functional obsolescence
- Age
- Wear and tear

For heritage properties, depreciation may vary depending on the conditions.

h) Current Building Value

This is the final building value after depreciation, which represents the actual value of the existing structure in the latest period.

5.0. Conclusion

According to the results gathered from the FGDs, it was recommended that Malaysia should conduct valuation for the heritage buildings owned by the government rather than using the nominal value of RM1 in the accounting record, wherein a combination of the market approach and the cost approach to value land and buildings was considered to be the most suitable method to value government-owned heritage buildings. Specifically, the market dimension represents the economic aspect of heritage valuation, which is supported by comparable sales data, whenever available, especially for land value, whereas the cost approach concentrates on reproduction and conservation expenses, which are adjusted for depreciation to reflect the reproduction value of the asset. To strengthen the levels of accuracy and cultural sensitivity, the valuation process also includes heritage significance assessments, which will help guarantee that both tangible and intangible values are appropriately recognised to determine the fair value. Concurrently, the cultural heritage aspects, which are incorporated into the asset value through the intangible aspects such as aesthetic, historical, and symbolic significance, are considered for adjustments. Nevertheless, the present study comprises several key limitations, primarily owing to the data scarcity regarding heritage property transactions, restoration costs, and specialised material sourcing in Malaysia, which have compelled valuers to highly depend on subjective estimation and professional judgment, thereby limiting the accuracy and comparability of valuations across various governmental agencies. Additionally, estimating reproduction costs has become increasingly complex due to the obsolescence of traditional construction techniques and the rarity of authentic materials, including chengal wood. The above technical barriers have also been exacerbated by methodological inconsistencies in the current standards, such as MPSAS 17 and MVS, which do not provide sufficiently detailed guidelines for quantifying intangible cultural, social, and symbolic values. As such, future researchers should focus on the development of a national heritage database to centralise information on conservation costs and heritage property transactions, thereby enhancing transparency and consistency. There is also a critical need to investigate refined depreciation models that can simultaneously account for both physical wear and the potential appreciation of cultural significance in the long term. Moreover, future studies should explore incorporating qualitative scoring tools or cultural value indices to more accurately showcase intangible benefits in financial reports, with other vital topics, including assessing the impact of climate change on the structural integrity and maintenance costs of heritage buildings in tropical environments and standardising heritage significance assessments aligned with international references, also being accounted for.

Acknowledgement

The current authors would like to extend sincere appreciation to the JANM for funding the current project and to the Research Management Centre, Universiti Tun Hussein Onn Malaysia, for the provided support. The current authors are also deeply grateful for the invaluable contributions of the research assistant, fieldwork assistant, and interns, whose assistance substantially facilitated the processes of data collection and analysis.

References

Accountant General's Department of Malaysia. (2017). *Surat Pekeliling Akauntan Negara Malaysia Bilangan 10 Tahun 2017: Carta Akaun Asas Akruan* [SPANM Bil. 10/ 2017]. Bahagian Pembangunan Perakaunan dan Pengurusan, Jabatan Akauntan Negara Malaysia. https://www.anm.gov.my/images/dokumen/pekeliling/surat-pekeliling-anm/2017/SPANM_Bil_10_2017_Bil_39_Carta__Akaun_Asas_Akruan_1.pdf

Accountant General's Department of Malaysia. (2025). *Accrual accounting policies and interpretations* (Revised 2025). Ministry of Finance. https://www.anm.gov.my/

Adamus, J. (2023). How much are public spaces worth? Non-market valuation methods in valuing public spaces. *Gospodarka Narodowa. The Polish Journal of Economics, 314*(2), 66–89.

Albu, N. (2021). Accounting for heritage assets: Between financial recognition and cultural value. *Accounting, Auditing & Accountability Journal, 34*(9), 134–152.

Augustiniok, N., Plevoets, B., Houbart, C., & van Cleempoel, K. (2022). Value as a legal tool for the preservation of monuments in Flanders and Wallonia: Between conservation and adaptation. *The Historic Environment: Policy & Practice, 13*(4), 482–508. https://doi.org/10.1080/17567505.2022.2148963

Aversano, N., & Caterina, G. (2012). Accounting for heritage assets and cultural institutions: Theoretical issues and empirical evidence. *International Journal of Cultural Policy, 18*(2), 215–232.

Azmi, F. A. M., Ismail, S., Rahman, R. A., Sabit, M. T., & Mohammad, J. (2018). A sustainable model for heritage property: An integrative conceptual framework. *International Journal of Engineering & Technology, 7*(3.21), 274–280.

Bakri, N., Rahman, A. A., & Jaafar, M. (2012). Challenges in valuing cultural heritage properties: A Malaysian perspective. *Journal of Surveying, Construction and Property, 3*(2), 1–13.

Barton, A. D. (2000). Accounting for public heritage facilities – Assets or liabilities of the government? *Accounting, Auditing & Accountability Journal, 13*(2), 219–235.

BOVAEP. (2025). *Malaysian Valuation Standards* (7th ed.). Board of valuers, appraiser, estate agents and property managers. Kuala Lumpur, Malaysia: Author.

Chin, S. T., Lee, C. H., & Ahmad, Y. (2021). Aesthetic and symbolic values of Malaysian heritage buildings: A framework for cultural significance assessment. *Journal of Design and Built Environment, 21*(2), 1–15.

Chun, W. Y., Ahmad, A. G., & Ismail, W. Z. W. (2005). Architectural heritage of Malaysia: Understanding the past for the future. *Journal of the Malaysian Institute of Architects (PAM), 1*(1), 45–57.

Duval, A., Oppio, A., Bottero, M., & Dell'Anna, F. (2019). Integrating cultural significance into the economic valuation of heritage assets. *Journal of Cultural Heritage Management and Sustainable Development, 9*(3), 275–289.

Dragouni, M. (2022). Measuring cultural heritage value: Between tangible assets and intangible benefits. *Journal of Cultural Heritage Management and Sustainable Development, 12*(4), 456–473.

Esraa, A., & Meervat, S. (2023). Maintenance management of heritage buildings: Implications for value preservation. *International Journal of Building Pathology and Adaptation, 41*(4), 512–528.

Hasif Rafidee, M. Y. (2015). National heritage assets and their symbolic value: The case of Merdeka Stadium. *Planning Malaysia: Journal of the Malaysian Institute of Planners, 13*(1), 89–104.

Hassan, N. L., Saad, N., Ahmad, H. N., Salleh, M. S. M., & Ismail, M. S. (2016). The accounting practices of heritage assets. *International Journal of Economics and Financial Issues, 6*(6S), 80–83. Retrieved from https://econjournals.com/index.php/ijefi/article/view/3120

Ho, C. S. (2019). Valuing the intangible: Cultural heritage and the challenge of measurement in Malaysia. *Asian Journal of Accounting Perspectives, 12*(2), 34–49.

Lida, K. & Fukushige, M. (2025). Additional neighbourhood effects following renovation of historical heritage: an empirical investigation of the case of Himeji Castle*. International Journal of Economic Policy Studies, 19*(1), 183-208.

Iswari, R., & Mediawati, E. (2024a). Heritage asset valuation under MPSAS 17: Lessons for developing nations. *Asian Journal of Accounting Research, 9*(2), 175–188.

Iswari, R., & Mediawati, E. (2024b). Revisiting heritage property valuation: Integrating cultural and economic dimensions. *Asian Journal of Accounting and Governance, 18*(1), 45–60.

Jamal, N. A., Ahmad, Y., & Ibrahim, M. (2022). Evaluating the impact of building scale on the cost and sustainability of heritage conservation projects in Malaysia. *Built Environment Journal, 19*(1), 21–34.

Mohamad, J., Ismail, S., Ab Rahman, R., & Ismail, A. R. (2015, January 18–21). *Valuers' perception on the current practice of heritage property valuation in Malaysia* [Paper presentation]. 21st Annual Pacific-Rim Real Estate Society Conference, Kuala Lumpur, Malaysia.

Mohamad, J., & Ismail, S. (2019). Capabilities of revealed preference method for heritage property valuation. *Planning Malaysia, 17*(9). https://doi.org/10.21837/pm.v17i9.613

Mohamad, J., Ismail, S., & Mohd Nasir, A. R. (2021). The legal requirements of appropriate heritage property valuation method. *Planning Malaysia, 19*(17). https://doi.org/10.21837/pm.v19i17.999

Mourato, S , & Mazzanti, M. (2002). Economic valuation of cultural heritage: Evidence and prospects. In M. de la Torre (Ed.), *Assessing the values of cultural heritage* (pp. 51–76). Getty Conservation Institute.

Ouda, H. A. G. (2014). Heritage asset accounting in the public sector: An international comparison. *International Journal of Governmental Financial Management, 14*(1), 20–45.

Raja Ariffin, R., Mohamad, R., & Zakaria, N. (2021). Comparative valuation techniques under Malaysian Valuation Standards (MVS). *Journal of Valuation and Property Services, 24*(1), 33–48.

Ribera, F., Nesticò, A., Cucco, P., & Maselli, G. (2020). A multicriteria approach to identify the highest and best use for historical buildings. *Journal of Cultural Heritage*, *41*, 166–177.

Rosli, M. H., & Kamaluddin, A. (2024). Accounting for tangible heritage asset: The case of the National Archives of Malaysia. *Management and Accounting Review (MAR), 23*(2), 1–20.

Ruijgrok, E. C. M. (2006). The three economic values of cultural heritage: A case study in the Netherlands. *Journal of Cultural Heritage, 7*(3), 206–213.

Sandeford, P. (2005). Building materials and techniques in historical conservation: Lessons for modern valuation. *Construction and Building Materials, 19*(8), 642–648.

Sesana, E., Gagnon, A. S., Bertolin, C., & Hughes, J. J. (2021). Assessing the physical vulnerability of heritage buildings to climate change in humid tropical environments. *Sustainability, 13*(14), 7895.

Throsby, D. (2001). *Economics and culture.* Cambridge University Press.