

A Review on Approaches for Valuing Government-Owned Heritage Assets

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Abstract

Purpose: The valuation and measurement of tangible heritage assets, such as historical buildings, demand distinct approaches compared to conventional assets. The Malaysian Public Sector Accounting Standards (MPSAS) provide broad guidelines on how these assets should be recognised and reported in public sector financial statements. This paper aimed to identify the valuation and measurement approaches applicable to tangible heritage assets in the public sector. The study particularly focuses on addressing methodological gaps and practical challenges in the national context.

Design/ Methodology/ Approach: A qualitative approach was adopted in this paper. By using a comparative literature review methodology, relevant academic articles, policy documents, and international standards were critically analysed to synthesise the most pertinent valuation approaches adopted globally. This review highlights gaps in current valuation practices in Malaysia and its surrounding regions. The review offers insights into how

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international experiences may improve the protection and recognition of these invaluable national assets.

Findings: Determining appropriate valuation methods remains challenging due to the unique characteristics of heritage assets, which complicate efforts to ensure valuation accuracy, reliability, and comparability. Inaccurate valuations risk misrepresenting the true value of the asset, leading to inappropriate impairment or depreciation.

Keywords: Valuation approach, heritage asset, tangible asset, comparison of valuation technique

1.0 Introduction

Government-owned heritage assets, encompassing historical buildings, monuments, and archaeological sites, represent invaluable cultural and historical capital that transcends mere economic utility. Compared to ordinary assets, the valuation of these tangible assets requires a different approach. Heritage assets comprise sites, structures, and landscapes that possess outstanding value from historical, cultural, architectural, archaeological, or natural perspectives. With the growing emphasis on conservation, the evaluation of heritage assets has become critical. The assessment of these assets must extend beyond their physical and historical attributes to include their economic, social, cultural, and symbolic values. These values contribute significantly to local identity, community pride, and sustainable development (Maria et al., 2024; Van der Zee et al., 2024). Jang and Mennis (2021) stated that proper valuation serves as an essential decision-making tool for local governments, urban planners, conservation authorities, and international bodies in determining policies related to the management, preservation, funding, and rehabilitation of heritage assets. These assets embody a nation's collective memory, identity, and architectural distinctiveness, making their preservation and appropriate valuation critical for future generations (Nur Aina lylia & Siti Norlizaiha, 2023). This paper seeks to uncover the deficiencies in the heritage asset valuation procedures utilised in Malaysia and to analyse best practices and challenges from other countries for benchmarking purposes.

2.0 Literature Review

An asset is a resource controlled by an entity as a result of past events, from which future economic benefits are expected to flow to the entity. Under Malaysia's National Heritage Act 2005 (Act 645), "heritage" has been defined in Section 2 as follows:

"Heritage" refers to any heritage site, heritage object, underwater cultural heritage, or national heritage, whether tangible or intangible, that possesses cultural heritage significance and includes the natural heritage.

Thus, valuing heritage assets is a complex and multi-dimensional process. Unlike conventional real estate or infrastructure, which can be valued based on market transactions, heritage assets embody non-market values, such as historical significance, aesthetic appeal, cultural identity, and symbolic meaning. These elements are inherently intangible and often difficult to quantify using traditional valuation approaches (Dragouni, 2022). Therefore, the valuation

process requires a holistic, interdisciplinary methodology that balances economic justification with cultural and social considerations (ICOMOS, 2011).

2.1 Heritage Management in Malaysia

The management of heritage properties in Malaysia involves the federal government, state government, and local authorities. Each has its own distinct tasks and methodologies for protecting and maintaining designated monuments and buildings. Table 1 lists the jurisdictions of agencies at the federal, state, and local governments pertaining to heritage management in Malaysia. According to Indera Syahrul and Yahaya (2015), various ministries and agencies at the federal, state, and local levels are engaged in the promotion, management, and conservation of heritage buildings and sites (Refer to Table 1). The Department of National Heritage, under the Ministry of Tourism and Culture at the federal level, operates in accordance with the National Heritage Act (2005). The act has been established to safeguard the nation's heritage (Malaysian Government, 2006). Other pertinent federal ministries include the Ministry of Housing and Local Government, the Ministry of Works, the Ministry of Education, and several non-governmental entities or organisations.

Table 1: Agencies at the Federal, State, and Local Levels Involved in the Management of Heritage in Malaysia

Level of Government	Ministry/ Department	Functions
Federal	Ministry of Tourism, Arts and Culture	Promotion and management of the cultural heritage (National Heritage Act 2005)
	<ul style="list-style-type: none"> Department of National Heritage (JWN) 	
	Ministry of Housing and Local Government	Coordinate town and country planning at the national level, and to protect the heritage buildings and conservation areas according to the Town and Country Planning Act 1976 (Act 172)
	<ul style="list-style-type: none"> Department of Town and Country Planning (PLAN Malaysia) 	
	Ministry of Works	Management and maintenance of government properties
	<ul style="list-style-type: none"> Department of Public Works 	
	Ministry of National Unity	This department is responsible for preserving, conserving, and disseminating knowledge on the country's historical, cultural, and natural heritage
	<ul style="list-style-type: none"> Department of Museums Malaysia (JMM) 	
Ministry of Education	Education and research in related areas pertaining to the preservation of natural and cultural heritage	
<ul style="list-style-type: none"> Universities and schools 		
Ministry of Finance	Responsible for public sector financial reporting and accounting standards, and for conducting valuations to determine the financial value of tangible heritage assets	
<ul style="list-style-type: none"> Accountant General's Department of Malaysia 		
<ul style="list-style-type: none"> Valuation and Property Services Department Public Asset Management Division (BPAA) 		BPAA is responsible for formulating, coordinating, and managing policies related to government-owned assets and public funds

Table 1: Agencies at the Federal, State, and Local Levels Involved in the Management of Heritage in Malaysia (continued)

Level of Government	Ministry/ Department	Functions
Federal	Non-government	Promotion of the preservation and conservation of Malaysia's built heritage by raising public awareness, demonstrating building conservation projects, and serving as a resource centre
	• Badan Warisan Malaysia	
	• International Council on Monuments and Sites (ICOMOS) Malaysia	Acts as a national and international link between public authorities, institutions, and individuals involved in the study and conservation of cultural heritage significance
	• Think City Sdn. Bhd.	Established in 2009 by Khazanah Nasional to spearhead community-based urban regeneration in George Town, Seberang Perai, Kuala Lumpur, and Johor Bahru
State	State Exco	Formulates state heritage conservation policy, allocates resources, and applies to federal government for project funding
	State Tourism Action Council	Promotion of tourism in the state
	State Town and Country Planning Department	Prepares the state's structure plan and special area plan
	George Town World Heritage Incorporated (GTWHI)	Responsible for the management, monitoring, and promotion of the World Heritage Site in George Town
	Melaka World Heritage Sdn. Bhd. (MWHBS)	Responsible for the protection, conservation, and promotion of the World Heritage Site in Melaka
	Melaka Museums Corporation (PERZIM) and other museums	Responsible for a consultation and public education centre in the preservation and dissemination of information about the history, culture, and nature of the local history
	Non-government	Promotion of conservation and preservation of the heritage of the state
	• Heritage Trust	
Local	City/ Municipal Council	Prepares draft of local plan, special area plan, planning and building control, and enforcement under the Town and Country Planning Act (1976) and Street, Building and Drainage Act (1974)
	Local Authorities	To create laws and rules, to grant licenses and permits for any trade in its area, as well as to plan and develop the area of jurisdiction

2.2 Heritage Asset Valuation

According to Junainah et al. (2021), heritage properties can generally be categorised into two (2) main uses, namely public and private properties. Similarly, interest in the valuation of

heritage properties has grown among researchers, particularly in identifying the most suitable methods for appraising such assets (Ouda, 2014; Dragouni, 2022; Iswari & Mediawati, 2024). Nonetheless, appraising heritage properties poses certain difficulties (Barton, 2000; Aversano & Caterina, 2012; Bakri et al., 2012). In contrast to conventional assets, heritage properties are rarely traded on the open market, complicating the application of standard valuation methodologies. Their distinctiveness further complicates the application of conventional approaches.

As identified in the extant literature, Junainah et al. (2021) elucidated numerous challenges in valuing heritage assets, with four (4) principal issues arising:

- i. The conceptual complexity of 'heritage' itself, including the need to understand both the classification and the multiple dimensions of heritage value.
- ii. The inadequacy of purely statistical methods in capturing heritage value, which also involves intangible and non-use elements, such as intrinsic or symbolic value.
- iii. Growing concerns over the effectiveness of current valuation methodologies and their outcomes, as inaccuracies in measurement can lead to inconclusive or misleading results.
- iv. Limited data availability hampers efforts to fully understand and quantify the value components of heritage properties.

Thus far, valuing heritage assets poses numerous substantial obstacles. Most of these obstacles stem from the complexities of defining and categorising heritage, given its multidimensional nature. Conventional valuation approaches often prove inadequate because they fail to consider intangible factors such as symbolic or cultural significance. Moreover, existing valuation methodologies may produce inconsistent outcomes. The absence of extensive data further hinders an accurate assessment of the full value of heritage assets. The historical cost method values an asset based on its original purchase price, overlooking appreciation, uniqueness, or non-material value associated with heritage properties. Similarly, market-based valuation depends on comparable market transactions, which are often irrelevant or unavailable for heritage assets, as they are irreplaceable and not traded in open markets. Consequently, these existing methodologies may produce inconsistent outcomes. The absence of extensive data further hinders an accurate assessment of the full value of heritage assets (Throsby, 2001; Mourato & Mazzanti, 2002; Ruijgrok, 2006).

2.3 Laws Related to Heritage Property in Malaysia

In Malaysia, the National Heritage Act 2005 (Act 645) provides the foundation for the protection and conservation of tangible heritage. Figure 1 illustrates the classification of tangible heritage as defined in the National Heritage Act 2005 (Act 645) and in accordance with international conventions such as the United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Convention (1972). Tangible heritage is represented at the top of the hierarchy, encompassing all physical, visible, and touchable heritage elements. The figure demonstrates that tangible heritage integrates both cultural and natural heritage dimensions under the National Heritage Act 2005. These dimensions reflect Malaysia's diverse historical, environmental, and cultural legacy, emphasising the need for holistic heritage management and conservation.

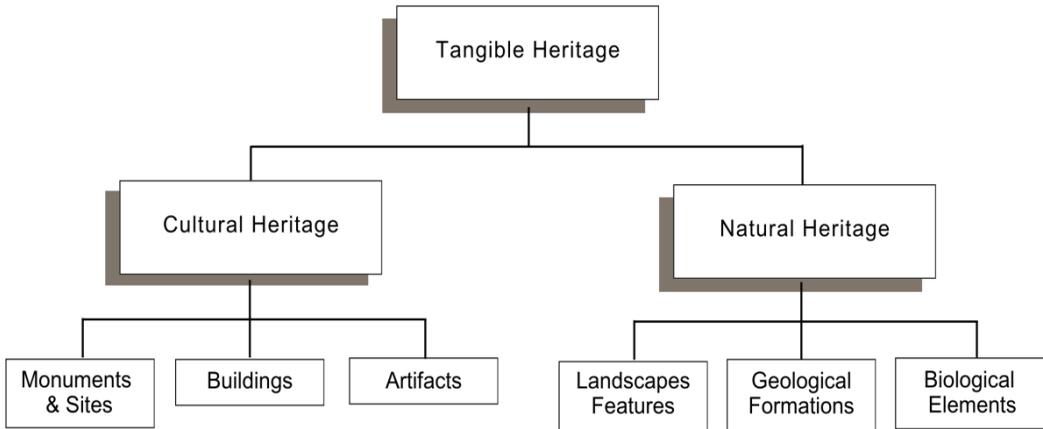


Figure 1: Classification of Tangible Heritage under the National Heritage Act 2005 (Act 645)

Junainah et al. (2021) noted that Malaysia lacks definitive laws and regulations for the valuation of heritage properties. Tables 2 and 3 provide a comparative overview of national and international laws and regulations related to heritage property valuation. Table 2 focuses on the Malaysian context, highlighting several key legislative and regulatory frameworks. The National Heritage Act 2005 (Act 645) serves as the cornerstone of heritage protection, emphasising conservation and providing only definitions and classifications of heritage properties. The Town and Country Planning Act 1976 (Act 172) outlines restrictions on development involving heritage properties, requiring local authority approval and the preservation of architectural facades. Subsequently, the Local Government Act 1976 (Act 171) grants local authorities the responsibility for maintenance-related matters concerning heritage buildings. The Malaysian Valuation Standards (MVS) 2019 (6th edition) provides general guidance on property valuation but lacks specific directives for heritage assets. Lastly, MPSAS (2025), specifically MPSAS 17, defines heritage properties and discusses how historical factors may influence their value.

Table 2: Review of the Related Laws and Regulations on Heritage Property Valuation in Malaysia

Laws Related	Review	References
National Heritage Act 2005 (Act 645)	<ul style="list-style-type: none"> Emphasises the conservation and preservation of heritage properties Outlines the definition and classification of heritage property 	Junainah et al. (2021)
Town and Country Planning Act 1976 (Act 172)	<ul style="list-style-type: none"> Limitation on heritage property Approval from the local government is required for each development and must adhere to the restrictions outlined in the Act Any alteration or reconstruction of a heritage building, the owner must ensure that the building façade is retained 	Azni (2018) Fatim Afiqah et al. (2018)

Table 2: Review of the Related Laws and Regulations on Heritage Property Valuation in Malaysia (continued)

Laws Related	Review	References
Local Government Act 1976 (Act 171)	<ul style="list-style-type: none"> • Describes powers given to the local authority about heritage matters pertaining to maintenance work 	Zolkafii et al. (2019)
Malaysian Valuation Standard 2019 (6th edition)	<ul style="list-style-type: none"> • Provides general descriptions of property valuation • No specific explanation is provided for the interest in performing an assessment of heritage property 	Fatin Afiqah et al. (2018) Junainah et al. (2015), Junainah and Suriatini (2019) Bakri et al. (2015)
Malaysian Public Sector Accounting Standards (MPSAS) 17: Property, Plant and Equipment	<ul style="list-style-type: none"> • Provide the definition of heritage property and the historical factors that influence its value, either increasing or decreasing it. 	Nor Laili Hassan et al. (2016)

On the other hand, Table 3 presents international perspectives on the valuation of heritage properties. The table includes the Valuation of Specialised Public Service Assets, which contains a detailed Annexe on historic real property. The details offer a comprehensive framework covering definitions, influencing variables, valuation methods, and value types. The Standard of Generally Recognised Accounting Practice (GRAP) 103 issued by the Accounting Standards Board addresses the challenge of valuing heritage assets in thin markets by recommending the development of suitable and context-specific valuation approaches. Similarly, IPSAS 17 aligns with GRAP 103 in recognising the need for flexible valuation methods when market data is lacking. These tables underscore the disparity between existing frameworks in Malaysia and more advanced international standards. These tables underscore the disparity between existing frameworks in Malaysia and more advanced international standards. The study suggests that Malaysia should adopt more detailed, contextually adaptable valuation methodologies for heritage assets.

Table 3: Review of the Related Laws and Regulations on Heritage Property Valuation (International Context)

Laws Related	Review	References
Valuation of Specialised Public Service Assets	<ul style="list-style-type: none"> • This provision establishes a section for heritage property designated as Annexe - Historic Real Property. • It provides comprehensive information for executing heritage property valuation, encompassing the definition of heritage property, variables influencing value, valuation methodologies, procedures, and the many categories of value associated with heritage property. 	Owen (1999), Andrew & Pitt (2000), and Junainah et al. (2021)

Table 3: Review of the Related Laws and Regulations on Heritage Property Valuation (International Context) (continued)

Laws Related	Review	References
Accounting Standards Board-Heritage Assets (GRAP 103)	<ul style="list-style-type: none"> The regulation indicates that, in the absence of market evidence, no definitive strategy exists, necessitating the design of a suitable approach that addresses the challenges of a thin market. 	Biondi et al. (2021), De Wolf et al. (2021), GRAP 103 (2022), Iswari and Mediawati (2024)
IPSAS 17-Property, Plant and Equipment	<ul style="list-style-type: none"> Similar to GRAP 103. 	

2.4 Practical Issues in Heritage Valuation

As a measure to better understand the valuation of heritage properties, Junainah et al. (2015) classified valuation methods into conventional and advanced methods. The traditional methods comprise the sales comparison approach, cost approach, and investment approach. The advanced methods include stated preferences (SP), revealed preferences (RP), and hedonic pricing methods (Treasury, 2011).

Globally, the lack of a unified international guideline for heritage valuation has led to inconsistencies in the methods and principles applied across countries (Riganti & Throsby, 2021). The authors highlighted the persistent gap between valuation theory and its application in policy, arguing that heritage assets should be viewed as forms of cultural capital that generate both economic and cultural value. While economic valuation techniques such as contingent valuation, hedonic pricing, and benefit transfer offer structured ways to quantify heritage value, they often fail to capture intangible cultural and social dimensions. Riganti and Throsby (2021) emphasised the need for integrated and participatory valuation frameworks that combine economic, cultural, and social perspectives, aligning heritage conservation with sustainability and well-being goals. They also stressed the importance of coherent policy tools and innovative financing mechanisms (such as impact investment) to ensure that valuation practices inform real-world decision-making.

Moreover, many rely on context-specific frameworks shaped by national policy, financial capability, and public appreciation of heritage value (Fredheim & Khalaf, 2016). Fredheim and Khalaf critically examined the limitations of existing heritage value typologies. The authors argued that many frameworks used in conservation and management are conceptually incomplete and often fail to capture the full complexity of heritage significance. They highlighted how typologies often overlook intangible, relational, and evolving aspects of heritage, leading to implicit value judgments that shape decisions without adequate transparency. The authors proposed a holistic, three-stage framework, identifying features of significance, aspects of value, and qualifiers of value to better access and communicate heritage significance. This approach aims to overcome rigid dichotomies (such as tangible vs intangible) and accommodate diverse stakeholder perspectives, especially in complex urban and object-based heritage contexts. However, the absence of standardised methods makes cross-border comparisons and benchmarking difficult, which further highlights the need for a more comprehensive and adaptable heritage valuation framework (Azzopardi et al., 2023).

In the Malaysian context, several practical challenges hinder the effective valuation of heritage assets. These challenges include the absence of standardised heritage valuation frameworks, difficulties in estimating market value due to the uniqueness and irreplaceability of such assets, limited availability of historical data and records, shortages in skilled valuation professionals, and incomplete integration of conservation costs into valuation models (Junainah et al., 2021; Norida et al., 2021). Moreover, Biondi and Lapsley (2014) stated that the use of advanced digital tools and technologies for asset documentation and assessment often incurs high costs, further constraining their implementation.

These challenges are also evident in the public sector. For example, the Accountant General's Department of Malaysia (JANM) encounters significant constraints in the process of recognising and valuing heritage assets under governmental ownership, particularly when determining both heritage value and accounting value for movable and immovable assets (Junainah et al., 2021). Therefore, the valuation of heritage assets in Malaysia requires collaboration among multiple agencies with relevant expertise, including the Valuation and Property Services Department (JPPH), the Department of National Heritage, the Department of Museums Malaysia, local authorities (PBTs), and other related agencies.

This challenge is particularly evident in the Malaysian public sector, where current accounting practices for heritage assets often deviate from established national and international guidelines (Adam et al., 2011). Specifically, the adoption of accrual accounting and Malaysian Public Sector Accounting Standards (MPSAS) in federal statutory bodies has faced hurdles, impacting the true and fair financial reporting of such unique assets (Hanafi et al., 2024). This discrepancy underscores the critical need for an improved valuation framework that addresses the specific characteristics of heritage assets, moving beyond conventional accounting treatments. This approach includes considering non-monetary values and developing methodologies reflecting their cultural and historical significance, which are often overlooked in traditional financial assessments. The International Public Sector Accounting Standards (IPSAS) acknowledge the unique nature of heritage assets and the complexities they introduce for financial reporting, necessitating specific guidance for their recognition and valuation (Pontoppidan, 2019; Argento & van Helden, 2023).

This imperative is further amplified by the global shift towards accrual accounting in the public sector. The shift necessitates the comprehensive recognition and measurement of all assets, including heritage assets, on financial statements (Arshad et al., 2013; Nur Shawalliza & Hartini, 2018). For instance, Malaysia has embarked on a strategic reform to fully adopt accrual accounting in public-sector financial reporting, which aligns with global accounting standards and necessitates re-evaluating asset management practices, including those for heritage assets (Sharifah Sabrina et al., 2019). This transition requires a concerted effort to develop and implement appropriate valuation methodologies that capture the unique characteristics and multifaceted value of these assets.

2.5 The Importance of Heritage Asset Valuation to Economic Growth

The importance of heritage asset valuation for economic growth is underscored by multiple aspects identified in recent research. Empirical research demonstrates that cultural heritage assets substantially improve economic growth, as evidenced in Greece, where a favourable influence of cultural heritage endowment on regional economic growth was observed from 2000

to 2019 (Kostakis & Lolos, 2024). This relationship is not only unique to Greece. Countries, such as Italy, Spain, the UK, New Zealand, and the US, have also leveraged their heritage assets to stimulate local economies, foster entrepreneurship, and promote social inclusion (Valentina et al., 2015; Oppio et al., 2024).

Economic valuation methods, including willingness-to-pay and discrete-choice experiments, enable policymakers to quantify the tangible and intangible benefits of heritage, facilitating more informed investment and conservation choices (Halkos et al., 2024). Porter (2004) highlighted the significance of recognising the value of heritage assets for several reasons: (1) to acknowledge and respect the full worth of environmental heritage assets, (2) to recognise the need for their maintenance and protection, and (3) to support efforts to meet increasing demands for accountability regarding the sustained use of these assets. According to Timothy (2011), the overarching concern for heritage conservation has spilled into the cultural arena. He identified seven (7) reasons for the importance of conserving the heritage asset, which are enumerated in Table 4.

Table 4: Reason for the Conservation Importance

1. Scientific and educational value	Heritage places are important resources for both formal and informal education.
2. Environmental diversity	Conservation of the built environment helps to end the cruel destruction of the historic environment.
3. Artistic merit	Many historic buildings and ancient monuments are renowned as products of enormous creative genius and have become the most popular tourist attractions.
4. Revenue generation	Heritage conservation leads to potential financial benefits and generates revenue for the country.
5. Nostalgia	Protecting heritage places will enhance a sense of 'collective nostalgia' as a way of getting back to their original roots.
6. Nationalism	Protecting heritage is a way of nurturing national solidarity with a homeland and building sentiments of patriotism and loyalty among citizens.
7. Functional use of heritage resources	Conserving the functional utility of historic buildings is more cost-effective than rebuilding new one.

Source: Timothy (2011)

The table above illustrates the multifaceted importance of heritage conservation, not only for cultural and historical preservation but also for sustainable development, education, national identity, and economic vitality.

2.6 Comparative Review on the Measurement of Heritage Valuation

This section critically examines various valuation approaches and assesses their suitability for tangible heritage assets, particularly given the challenges of assigning monetary value to their unique cultural and historical significance. This comparative review across multiple nations highlights best practices and identifies areas where Malaysia can adapt international models to enhance its own heritage valuation frameworks. The analysis is crucial for developing robust, contextually relevant guidelines for heritage asset valuation that transcend purely economic considerations and effectively integrate social and cultural dimensions (Steenberg & Cirklová,

2024). Valuing government-owned heritage assets requires a tailored approach that reflects their unique characteristics and public significance. Unlike conventional assets, heritage properties often lack active markets and income-generating potential, making traditional valuation methods less applicable. Instead, valuation approaches must focus on capturing the asset's service potential, cultural importance, and preservation needs.

2.6.1 Malaysia

Currently, Malaysia lacks a comprehensive and standardised framework for valuing its diverse heritage assets. The country often relies on ad-hoc or market-driven appraisals that may overlook important non-monetary values. This gap is particularly evident in the absence of a dedicated assessment framework for heritage buildings, which would guide best practices for refurbishment and ensure the preservation of historical significance during modernisation efforts (Wong, 2019; Juliza et al., 2023). As a result, these assets are often undervalued, leading to insufficient allocation of resources for their maintenance and preservation (Kamarudin et al., 2014). The current valuation practices in Malaysia, which predominantly focus on market value, fail to capture the holistic value of heritage assets, including their cultural, social, and environmental contribution (Olesen, 2024). This limitation highlights the critical need for an integrated valuation framework that considers the multifaceted contributions of heritage assets to national identity and public welfare (Steenberg & Círklová, 2024).

Moreover, an absence of consistent guidelines for maintaining heritage buildings further exacerbates this issue. The absence leads to suboptimal preservation outcomes and a devaluation of these significant cultural properties (Zolkafli et al., 2019). Consequently, there is an urgent need to develop a standardised, holistic valuation framework for heritage assets in Malaysia that integrates cultural, historical, and economic dimensions, which aligns with international best practices. The framework would not only improve financial accountability but also foster better strategic planning for the conservation and sustainable management of Malaysia's rich cultural legacy. This outcome would concurrently enable more effective resource allocation and strategic planning for the conservation and sustainable management of these irreplaceable assets.

2.6.2 Singapore

The nation has made significant strides in heritage conservation, particularly through its Our SG Heritage Plan, which emphasises the integration of heritage into urban planning and sustainable development strategies (National Heritage Board, 2025). Its approach involves a nuanced recognition of the social value generated by heritage sites, moving beyond purely financial metrics to incorporate community engagement and cultural significance in valuation processes (Tan & Ti, 2020). This integrative perspective is further supported by initiatives such as the "heritage butterfly" model, which quantifies both expert and public opinions to ensure a balanced valuation that reflects academic and community appreciation for heritage architecture (Widodo et al., 2017). This approach underscores Singapore's commitment to preserving its national identity by ensuring that heritage valuations reflect a broad spectrum of cultural, social, and economic benefits rather than only market value.

Furthermore, Singapore has applied contingent valuation methods to quantify the economic potential of the social value derived from its built heritage. These methods allow for measuring

individuals' willingness to pay for preservation and identifying the attributes that influence such payments. For instance, the People's Park Complex serves as a notable case study where a survey-based approach, rooted in the contingent valuation method, was applied to assess the economic potential of its social value (Junjie Qin & Nikhil Joshi, 2023). This methodology helps bridge economic considerations with preservation narratives, enabling a more comprehensive understanding of heritage assets beyond their architectural significance. This approach recognises that social value, including a sense of belonging and identity, often goes unmeasured in profit-driven development projects, placing historically significant sites at risk. Consequently, Singapore's framework provides a compelling model for Malaysia, demonstrating how social and cultural values can be incorporated into valuation methodologies to protect heritage assets from unsympathetic redevelopment.

2.6.3 Indonesia

On the other hand, Indonesia presents a more complex landscape for heritage asset valuation due to its vast and diverse cultural heritage, often relying on a blend of traditional conservation laws and emerging economic valuation techniques. This complexity often leads to varied approaches across different regions and heritage sites, reflecting the dynamic interplay between local customs, national policies, and international conservation standards. Indonesia's heritage asset management is governed by national laws such as the Law on Cultural Conservation (2010) and the Cultural Advancement Law (2017), which set criteria for heritage value and promote documentation and utilisation (Saputra, 2024). For the valuation model, Indonesia primarily uses historical cost and fair value models for operational heritage assets, while non-operational assets often lack standardised valuation due to methodological and resource constraints (Fitri et al., 2015).

Thus, sites such as Borobudur Temple, a UNESCO World Heritage Site, demand valuation approaches that extend beyond mere structural assessment to encompass their profound spiritual and cultural significance to local and global communities (Olesen, 2024). Valuation frameworks for such heritage assets need to account for intangible cultural values, often employing multi-criteria analysis or qualitative assessments rather than relying solely on quantitative financial metrics. Moreover, the distributed nature of heritage governance in Indonesia, with significant roles played by regional governments and local communities, further complicates the standardisation of valuation practices, necessitating a flexible yet rigorous framework. Such a framework often requires a participatory approach, engaging stakeholders from local communities to national heritage bodies, to ensure that valuation methods are culturally sensitive while remaining economically relevant. Nevertheless, the discourse around heritage conservation in Asia, including Indonesia, is often framed by a dichotomy between Western approaches that focus on material authenticity and Eastern perspectives that emphasise intangible social and cultural significance (Aditya Bagas, 2023).

2.6.4 United Kingdom

The approach undertaken by the UK to heritage asset valuation has undergone a significant transformation, moving beyond traditional market-based appraisals to embrace a more comprehensive understanding of value. According to Azzopardi et al. (2022), this evolution recognises that heritage assets possess multifaceted significance, encompassing historical, aesthetic, architectural, and communal aspects. Rather than focusing solely on financial

metrics, the UK now incorporates a “heritage value” concept that systematically identifies and communicates the diverse values associated with heritage properties. The UK employs a range of innovative methodologies to capture these complex values. Non-market valuation techniques, such as contingent valuation and discrete choice modelling, are increasingly used to quantify the public’s willingness to pay for heritage preservation. These methods allow for the inclusion of both use and non-use values, reflecting the broader societal benefits of heritage conservation (Fredheim & Khalaf, 2016). Additionally, participatory and people-centred approaches have gained prominence. By integrating public participation and stakeholder perspectives, using tools such as topic modelling and grounded theory, heritage management strategies are becoming more inclusive and reflective of community-held values.

Furthermore, multicriteria decision tools, such as the Analytic Hierarchy Process (AHP), are adapted to balance heritage value with potential new uses. These tools help ensure that conservation actions do not undermine the cultural significance of heritage assets, supporting sustainable urban development and adaptive reuse (Claver et al., 2020). Overall, the UK’s evolving framework for heritage asset valuation ensures that management decisions are informed by a broad spectrum of economic, cultural, and communal considerations. This approach contributes to safeguarding the relevance and integrity of heritage assets for current and future generations.

2.6.5 Australia

Australia’s approach to heritage asset valuation has evolved to address the unique challenges posed by cultural, historical, and environmental assets that often lack active markets or clear financial benchmarks. Traditional valuation methods, such as cost-based or market-based approaches, have proven inadequate for capturing the full value of heritage assets, as these methods typically require identifiable costs or active markets, conditions rarely applicable to assets of heritage significance (Porter, 2004). Consequently, Australia has increasingly adopted non-market valuation techniques such as contingent valuation, travel cost methods, and discrete choice experiments to estimate both use and non-use values, including public willingness to pay for preservation and protection (Rolfe & Windle, 2003; Choi et al., 2010; Czajkowski et al., 2025).

Recent studies have applied these methods to a variety of heritage contexts, from iconic sites such as Old Parliament House in Canberra to aboriginal cultural heritage sites in Queensland and Chinese heritage precincts in regional cities. These methods reveal that the public assigns significant value to attributes such as accessibility, condition, and protection measures. They also revealed that both experiential and intrinsic values are important in shaping policy and management decisions (Rolfe & Windle, 2003; Laing et al., 2014; Ferri et al., 2021). For example, discrete choice experiments in Victoria have highlighted the importance of incorporating community preferences into heritage policy development. Additionally, contingent valuation has been used to assess the trade-offs between cultural heritage and nature conservation in the Australian Alps (Lockwood, 1996). Overall, Australia’s heritage asset valuation landscape is characterised by a shift towards holistic, community-aligned, and methodologically diverse approaches that better reflect the multifaceted value of heritage assets for current and future generations.

2.6.6 New Zealand

New Zealand's approach to heritage asset valuation reflects ongoing challenges and tensions between economic accounting standards and the unique cultural, aesthetic, and social values of heritage collections. The country's museums and public entities have historically been cautious of the imposition of strict financial valuation, emphasising the importance of curatorship and community identity over purely economic measures (Hooper et al., 2005). This resistance is rooted in the recognition that heritage assets often function as public goods, lacking active markets and requiring stewardship rather than commodification (Barton, 2005).

According to Passey and Burns (2023), New Zealand's approach to heritage asset valuation is notably holistic, emphasising not only economic factors but also cultural, historical, and community significance. This perspective is reflected in frameworks that deliberately integrate both tangible (physical sites, landscapes, and buildings) and intangible (spiritual, relational, and traditional) aspects of heritage, ensuring a more comprehensive understanding of what constitutes heritage value. A key development in New Zealand is moving away from rigid, universal value typologies towards more context-sensitive models. For example, Stephenson's Cultural Values Model divides heritage into "forms" (physical features), "relationships" (meanings, identity, spirituality), and "practices" (traditions, activities), capturing how both experts and communities perceive heritage significance (Fredheim & Khalaf, 2016). This model is particularly relevant for Māori heritage, where ancestral lands and sites are considered taonga (treasures), with profound spiritual and communal meaning that transcend conventional economic valuation (Mika et al., 2022). Māori frameworks emphasise concepts such as mana (authority, dignity), hau (vitality), and kaitiakitanga (guardianship), which guide stewardship and decision-making for both land and cultural practices (Puriri & McIntosh, 2019). New Zealand's heritage asset valuation is distinguished by its holistic, bicultural approach, which integrates economic, cultural, spiritual, and community values, especially those central to Māori heritage. By adopting such an approach, both tangible and intangible aspects of heritage are respected and preserved for future generations.

2.6.7 Japan

Japan's approach to heritage asset valuation is shaped by a recognition of the complex, multifaceted nature of heritage, integrating tangible and intangible values. Rather than relying solely on universal or market-based typologies, Japanese heritage management increasingly emphasises frameworks that account for cultural, historical, social, and spiritual significance, as well as the lived experiences and practices associated with heritage sites (Iida & Fukushige, 2025). Japan's framework for valuing heritage assets similarly acknowledges the inherent difficulties in assigning market values to culturally significant properties, particularly historical buildings that are rarely traded and possess significant non-use values. As a result, non-market valuation techniques and cost-benefit analyses are relied upon more heavily to guide preservation policies and financial allocations (Oberholzer-Gee & Bruno, 1998). Since many heritage assets lack active markets, Japan employs non-market valuation methods such as contingent valuation and cost-benefit analysis to estimate their broader social and cultural value. These approaches help capture both use and non-use values, including the public's willingness to pay for preservation. Such approaches are increasingly used to inform policy and resource allocation for heritage conservation (Tuan & Navrud, 2008).

Japan also utilises the hedonic pricing method to analyse how heritage attributes influence economic value, particularly through their effects on land and property prices. The hedonic approach allows researchers to isolate the impact of proximity to historical sites or the presence of heritage features on real estate values, thereby quantifying the neighbourhood effects of heritage site renovation and conservation (Monson, 2009). Specifically, methods such as the hedonic approach are employed to analyse factors influencing economic value through changes in land prices and to assess the neighbourhood effects of historical site renovation (Iida & Fukushige, 2025). This method is especially valuable in contexts where direct market transactions are limited or absent, enabling the estimation of the implicit value of heritage characteristics. Japan's heritage asset valuation framework is characterised by a pragmatic reliance on non-market valuation and hedonic pricing methods, reflecting the unique challenges of valuing properties with significant cultural and non-use values. These approaches support more informed, evidence-based preservation policies and financial planning.

2.6.8 South Korea

Similar to Japan, South Korea faces challenges in valuing historic buildings due to their unique cultural and historical significance, often leading to controversies in preservation policies stemming from unclear selection processes (Kim & Lee, 2020). Consequently, valuation methodologies in South Korea often incorporate multi-criteria analysis and social impact assessments to account for the broader cultural and societal benefits of heritage, which are not easily quantifiable through traditional economic metrics. The government frequently employs these multifaceted approaches to guide conservation efforts and inform decisions on property development, aiming to balance economic growth with cultural preservation (Throsby, 2016).

Contingent valuation (CV) is also widely used to estimate the economic value of heritage sites and cultural practices by measuring the public's willingness to pay (WTP) for preservation or restoration. Studies have applied CV to World Heritage sites such as Changdeok Palace, estimating aggregate use values in the millions of dollars, and to restoration projects such as Hwangnyongsa Temple, where the social benefits of restoration were found to outweigh the costs, justifying public investment (Kim et al., 2007; Kim et al., 2018). Besides, CV has also been used to value intangible heritage, such as the Jeju Haenyeo (women divers) culture, and to assess the benefits of cultural heritage events and sites across regions (Park et al., 2020). South Korea's heritage asset valuation is characterised by robust application of non-market valuation methods, a growing emphasis on intangible and community values, and evolving policy frameworks that support sustainable and inclusive heritage management.

2.6.9 India

India's approach to heritage asset valuation is deeply holistic, reflecting the country's rich diversity of living traditions, religious practices, and historical sites. Heritage in India is not limited to monuments but encompasses living traditions, crafts, and community practices, making valuation a complex, multi-dimensional process (Balakrishnan & Narayana, 2024). Indian frameworks emphasise a comprehensive value assessment, considering not only the physical (tangible) aspects of heritage but also intangible elements such as rituals, beliefs, and community identity. Such an approach is particularly important for "living heritage", where religious, historical, and sociocultural values are dynamic and interwoven, and the significance

of sites often arises from ongoing practices and the transmission of sacrality within religious precincts.

Given that heritage is a non-marketed good, India increasingly uses economic valuation models adapted from environmental economics. Methods such as contingent valuation (estimating willingness to pay) and consumer surplus calculations are applied to sites such as Bishnupur, helping to quantify both use and non-use values and inform sustainable funding and preservation strategies (Basu & De, 2021). These approaches support the view of heritage as “cultural capital” and help justify investments in conservation (Dutta et al., 2007). Religious and sociocultural values are especially dominant in Indian heritage valuation, with many sites serving as active centres of worship and community gathering. The identity and significance of these places are shaped by both their historical context and their ongoing role in community life, making their value dynamic and context-dependent (Balakrishnan & Narayana, 2024). India’s heritage asset valuation is characterised by a holistic, value-based approach that integrates tangible, intangible, economic, religious, and community dimensions. By adopting this approach, preservation efforts reflect the true significance of heritage for both present and future generations.

2.7 Challenges in Valuing Heritage Assets

Valuing government-owned heritage assets requires a tailored approach that reflects their unique characteristics and public significance. Unlike conventional assets, heritage properties often lack active markets and income-generating potential, making traditional valuation methods less applicable. Instead, valuation approaches must focus on capturing the asset’s service potential, cultural importance, and preservation needs. In the Malaysian context, the cost approach is most popular, as it provides a practical framework for estimating the value based on replacement or reproduction cost, adjusted for depreciation. This approach aligns with the public sector’s emphasis on transparency, accountability, and stewardship of national heritage, ensuring that these irreplaceable assets are properly recognised in financial reporting and policy planning.

Valuing heritage assets is inherently complex due to their unique characteristics and cultural significance. These assets, such as historical buildings, monuments, and traditional sites, are often irreplaceable and lack active markets or generate income, making conventional valuation methods difficult to apply. Estimating their value involves challenges such as determining the cost of reproduction using original materials and techniques, which may no longer be available (Iswari & Mediawati, 2024). Additionally, standard depreciation models may not be suitable for heritage assets, as they can appreciate over time due to their historical importance. Their intangible cultural, emotional, and symbolic value also adds complexity, as it cannot be easily quantified. Accurate valuation often requires input from various experts, including historians, architects, and conservation specialists, to ensure that both tangible and intangible aspects are properly considered.

Table 5: Challenges in Valuing Heritage Assets

Lack of Market Comparable	No active market or similar transactions to benchmark value.
No Income Generation	Assets do not produce revenue, making income-based valuation unsuitable.
Estimating Replacement Cost	Difficult to reproduce due to unique materials, craftsmanship, or irreplaceability.
Depreciation Complexity	Standard depreciation models may not apply. Value may increase over time.
Intangible Cultural Value	Emotional, historical, and cultural significance is hard to quantify.
Compliance with Standards	No active market or similar transactions to benchmark value.
Need for Multidisciplinary Input	Requires expertise from historians, architects, and conservationists.

Source: Adapted from Salerno (2020); Adamus (2023); Augustiniok et al. (2022); Lucie Brožová et al. (2022); Biondi & Lapsley (2014); Aversano & Caterina (2012) and Scannell & Tawiah (2024)

2.7.1 Lack of Market Comparables

Heritage assets are typically not traded in open markets, indicating that there are no recent sales or similar assets to compare against. As a result, applying the market approach, which relies on comparable transactions to estimate value, becomes challenging. Without a market benchmark, valuers must rely on alternative methods that may be less precise. The scarcity of comparable market transactions for heritage assets significantly hinders traditional valuation methodologies, forcing reliance on more subjective and intricate assessment models (Salerno, 2020). This limitation necessitates the development of sophisticated methodologies that can account for the unique attributes and non-market values associated with these properties (Li et al., 2021). Consequently, valuers must often employ specialised techniques that take into account an asset's historical significance.

2.7.2 No Income Generation

Many heritage assets, particularly those in the public domain, do not generate direct income, which poses a significant challenge for valuation methods reliant on financial returns or discounted cash flows (Adamus, 2023). Unlike commercial properties or investments, heritage assets usually do not generate income. Museums, historical buildings, and monuments are maintained for public benefit rather than profit, making it impossible to apply the income approach, which values assets based on their ability to generate future cash flows. Consequently, alternative valuation approaches are required to quantify non-monetary benefits and societal contributions, including cultural enrichment, educational value, and community identity (Ribera et al., 2020).

2.7.3 Estimating Replacement Cost

The cost approach requires estimating how much it would cost to replace or reproduce the asset. For heritage assets, this approach is particularly challenging, as they often involve rare materials, traditional craftsmanship, or architectural styles no longer in use. In some cases, the asset may be irreplaceable, making cost estimation speculative and complex. Moreover, the unique architectural features and historical significance embedded in these structures further complicate the accurate assessment of replacement costs, as their intrinsic cultural value cannot be easily quantified using conventional construction metrics (Augustiniok et al., 2022). This challenge is exacerbated by the need to account for intangible cultural values

and historical authenticity, which are integral to the heritage status of the asset and cannot be fully captured by merely assessing material and labour expenses. Furthermore, while the cost approach considers the alternative of acquiring an equivalent, modern asset, it often falls short in capturing the unique, non-replicable value embedded in historic structures (Albu, 2021).

2.7.4 Depreciation Complexity

Depreciation is used to account for the loss of value over time due to wear and tear or obsolescence. Nevertheless, heritage assets may not follow typical depreciation patterns. Some may even appreciate in value due to their historical significance. Applying standard depreciation models can lead to inaccurate valuations, requiring expert judgment and tailored approaches. The heritage buildings, particularly those undergoing adaptive reuse, often require significant and specialised construction work to integrate modern amenities while preserving historical integrity, further complicating cost estimations and depreciation schedules (Lucie Brožová et al., 2022). This complexity is compounded by the necessity to upgrade older structures to meet current safety and accessibility codes, which often entails substantial architectural and engineering services to document existing conditions and scope rehabilitation work.

2.7.5 Intangible Cultural Value

Heritage assets often carry intangible value, such as emotional, historical, or cultural significance, that is difficult to quantify. This value is subjective and varies across communities and generations. Capturing this aspect in a financial valuation is difficult, and traditional accounting methods may not fully reflect the asset's true worth. Consequently, standard accounting frameworks struggle to incorporate these non-monetary attributes, often resulting in the undervaluation of heritage assets in financial statements (Biondi & Lapsley, 2014). Furthermore, the interdisciplinary nature of cultural heritage and the varied interpretations of its value, depending on individual or group perspectives, pose substantial challenges for defining explicit, unambiguous valuation terms (El Faouri & Sibley, 2024). As a result, developing a universally accepted framework for assessing intangible cultural values is particularly difficult, and often requires a combination of expert judgement, community engagement, and cultural impact assessments to complement traditional financial models.

2.7.6 Compliance with Standards

While MPSAS and MVS provide general guidance for asset valuation, they may lack specific provisions for heritage assets, potentially leading to inconsistencies in how different entities value similar assets. Valuers must interpret existing standards and apply professional judgment, which can introduce variability and uncertainty. The absence of clear, consistent directives underscores the need for more tailored guidelines to ensure uniform, reliable valuations of heritage assets across the public sector (Ferri et al., 2021). This deficiency often leads to reliance on broad interpretations of existing frameworks, which allow the assignment of monetary values to heritage assets when reliably determinable but do not prescribe a uniform methodology for making such determinations (Pontoppidan, 2019). This lack of specific guidance often results in governmental organisations engaging in extensive debates about recognition, measurement, and disclosure criteria for heritage assets in financial reporting (Aversano & Caterina, 2012).

2.7.7 Need for Multidisciplinary Input

Valuing heritage assets often requires collaboration among various experts, including historians, architects, conservationists, and cultural institutions. This multidisciplinary approach ensures a more accurate and respectful valuation but adds complexity, time, and cost to the process. The involvement of diverse specialists, each bringing unique perspectives on the significance of an asset, makes consensus on a single monetary value particularly challenging, especially given the inherent subjectivity of cultural and historical assessments (Dias, 2023). Moreover, the cost of engaging such a diverse team of experts can be substantial, often exceeding the resources available to many public sector entities for routine asset valuation. This issue further contributes to the underreporting or misvaluation of these assets (Pires et al., 2022). This complex interplay of financial and non-financial considerations necessitates a comprehensive framework that integrates diverse valuation methodologies and multidisciplinary insights to accurately reflect the multifaceted value of heritage assets (Scannell & Tawiah, 2024).

2.8 Valuation of Heritage Assets for Public Accounting in Malaysia

The MPSAS, which align with the IPSAS, require government entities to prepare accrual-based financial statements that accurately reflect the value of public assets such as land, buildings, infrastructure, and heritage properties. In this context, the valuation approaches under Malaysian Valuation Standards 7 (MVS 7), namely the market, income, and cost approaches, play a critical role in supporting asset recognition, measurement, and disclosure (Malaysian Valuation Standard, 2025). Based on Table 6:

- The market approach aligns with fair value requirements under standards such as MPSAS 17 and MPSAS 16, particularly for properties with active-market comparables.
- The income approach is relevant for investment or income-generating public assets, such as leased properties or concession-based facilities, supporting standards such as MPSAS 16, MPSAS 13 (Leases), and MPSAS 21 (Impairment of Non-Cash-Generating Assets).
- The cost approach is widely applied in the public sector to value specialised and non-cash-generating assets, such as schools, hospitals, roads, and government infrastructure, where market or income data are unavailable, thereby ensuring compliance with MPSAS 17, MPSAS 31, and MPSAS 32. These approaches ensure that asset valuations in the public sector are reliable, transparent, and consistent with financial reporting obligations under MPSAS.

Table 6: Valuation Approach and Its Application in Public Accounting

Valuation Approach	MPSAS Standards Applied	Typical Use in Public Sector
Market/ Comparison	MPSAS 17, MPSAS 16	Land, buildings with active market sales
Income	MPSAS 16, MPSAS 13, MPSAS 21	Investment properties, leased assets, revenue-generating assets
Cost	MPSAS 17, MPSAS 31, MPSAS 32	Infrastructure, specialised assets, non-cash-generating assets

2.8.1 Market Approach

The market/ comparison approach, as outlined in MVS, is a valuation method that derives the value of a property by comparing it with recent sales of identical or comparable properties that have transacted in the open market under fair and arm's-length conditions. This approach is based on the principle of substitution, which holds that a prudent buyer would not pay more for a property than the cost of acquiring a similar one under comparable conditions. In practice, the valuer identifies suitable comparable properties and subsequently makes adjustments to account for differences in location, size, condition, tenure, and other attributes to arrive at the estimated value of the subject property. The market approach is preferred when reliable, verifiable, and recent market data exists, as it reflects actual market behaviour and provides strong support for fair value determination.

In the context of MPSAS, which govern the accounting practices of government entities and are based on IPSAS, the market/ comparison approach is crucial for determining fair value under various standards. The accounting practices are most directly applicable to MPSAS 17 (Property, Plant, and Equipment), where entities have the option to use the revaluation model to measure property, plant, and equipment. Under this model, assets are revalued periodically to ensure their carrying amounts reflect current fair value rather than historical costs. The market approach is the most appropriate method for determining fair value for land and buildings in this context, particularly for government-owned office buildings, residential quarters, or commercial premises located in active markets.

Furthermore, the market approach supports valuation under MPSAS 16 (Investment Property), which allows or requires investment properties to be measured at fair value if it can be reliably determined. For example, a government agency that owns a retail property leased to private businesses must report the fair value of this property annually. If the property is located in an area with frequent real estate transactions and transparent pricing, the market approach provides a defensible, robust basis for valuation.

As a measure to ensure compliance with MPSAS, the application of the market approach must be evidence-based and transparent. Valuers must source and document relevant data, such as actual sale and purchase agreements, title, and land office records, recent transactions registered with the JPPH, Bursa Malaysia disclosures, or even public auction results, as long as they meet the conditions of an arm's-length transaction. All comparable properties must be recent, reliable, and adjusted appropriately to reflect the subject property's attributes (Junainah & Suriatini, 2019). This information must be disclosed in the valuation report and used as audit evidence to support the value reported in the government's financial statements.

In summary, the market/ comparison approach ensures that public assets are recorded at values that reflect real market conditions, enhancing the transparency, reliability, and accountability of public sector financial reports. Its application under MPSAS allows stakeholders, including auditors, regulators, and the public, to trust that government-owned properties are being properly valued and managed in accordance with international public sector financial reporting standards.

2.8.2 Income Approach

The income approach, as defined in the Malaysian Valuation Standards (MVS 7), is a valuation method that estimates the present value of future economic benefits derived from a property, typically in the form of rental income, profits, or cash flows. This approach is commonly used for income-generating assets, where the property's value is tied directly to its ability to generate revenue. The valuer will analyse projected income (such as rental or business earnings), deduct operating expenses, and then capitalise or discount the resulting net income using a market-derived capitalisation rate or discount rate.

In the public sector, governed by MPSAS, the income approach is less commonly applied than in the private sector, primarily because most government-owned assets (such as schools, hospitals, and roads) do not generate cash flows and exist primarily to deliver public services. However, the income approach becomes highly relevant in specific circumstances, particularly when public entities hold or manage revenue-generating assets. Examples include government-leased office buildings, rental housing schemes, sports complexes, markets, or public venues operated under Public-Private Partnerships (PPPs) or concessions. These assets can generate regular income, making them suitable for valuation using the income approach.

Under MPSAS 16 (Investment Property), if the government owns property held to earn rental income or for capital appreciation (rather than for direct service use), the income approach can be used to estimate fair value. Similarly, MPSAS 13 (Leases) requires the measurement of leased assets and liabilities, especially for finance leases, where income projections may be used to determine right-of-use asset values. One subset of the income approach, the Discounted Cash Flow (DCF) method, is also applicable under MPSAS 21 (Impairment of Non-Cash-Generating Assets), where the asset's value is based on its ability to provide future service potential, even if not directly profitable.

For example, consider a municipal public market owned by a city council. The city generates monthly rental income from stall operators. The valuer can estimate its net annual income by projecting gross rent, deducting maintenance and operating costs, and applying a market-based capitalisation rate to determine its current value. This approach ensures that the valuation reflects the asset's income-producing capability, which is essential for financial reporting, impairment assessment, or asset transfer planning.

In conclusion, while the income approach is less commonly applied in the public sector than the cost or market approaches, it is a powerful and relevant method for valuing government assets that generate economic returns. When used, it ensures compliance with MPSAS standards and provides a realistic, evidence-based valuation that reflects the future economic or service benefits expected from the asset.

2.8.3 Cost Approach

In terms of valuing heritage properties for public accounting purposes, the cost method is widely regarded as the most appropriate approach due to its focus on transparency, consistency, and accountability. Market-based or income-based methods are influenced by fluctuating external factors or subjective assumptions. In contrast, the cost method offers a more objective valuation by estimating the reproduction or replacement cost of the asset, adjusted for depreciation

(Junainah et al., 2015). This approach is particularly relevant for non-income-generating public heritage assets such as the Stadthuys in Melaka, Sultan Abdul Samad Building, or Muzium Negara, where market comparisons are either limited or entirely inapplicable.

By focusing on the actual investment needed to restore or replace an asset, the cost method aligns closely with government financial reporting standards, ensuring that heritage properties are accurately recorded and maintained in public accounts. It also facilitates long-term budgeting and resource planning for conservation and maintenance, making it a practical and defensible choice for public sector valuation. The cost approach is a valuation method that estimates an asset's value by the cost to replace or reproduce it, less depreciation. According to Malaysian Valuation Standards (MVS 7), this approach is particularly useful when market or income data is unavailable, which is often the case for public sector assets.

In the context of the MPSAS, the cost approach is particularly relevant. Many public assets, such as schools, hospitals, roads, bridges, and heritage sites, do not operate in active markets or generate income. These assets are typically unique and serve essential public functions, which makes it difficult to apply market or income-based valuation methods. As a result, the cost method emerges as the most practical, consistent, and widely adopted valuation technique within the Malaysian public sector. This approach is supported by several key MPSAS standards:

- MPSAS 17 for Property, Plant, and Equipment
- MPSAS 31 for Intangible Assets
- MPSAS 32 for Service Concession Arrangements, which involve infrastructure maintained by private concessionaires

The cost approach is important because it provides a reliable proxy for value by considering the asset's current replacement cost and adjusting for depreciation. Depreciation reflects the asset's physical wear and tear, functional obsolescence (such as outdated design or technology), and economic obsolescence (such as reduced demand or utility). These depreciation factors must be calculated in line with MPSAS guidelines, particularly regarding the asset's useful life and residual value. The cost approach is a cornerstone of public sector asset valuation under MPSAS, offering a structured and dependable method for valuing assets that are essential to public service but lack market comparables or income-generating potential.

2.9 Considerations in Valuing the Public Heritage Asset

According to the MVS (2025) and practices aligned with MPSAS, the cost approach is generally considered the most reliable method for valuing heritage assets in the public sector. The reason is primarily because:

- i. Heritage assets are unique and irreplaceable, often lacking active markets or comparable sales data, which makes the market approach impractical.
- ii. They also typically do not generate income, which limits the applicability of the income approach.
- iii. On the other hand, the cost approach estimates the value based on the current cost to reproduce or replace the asset, adjusted for depreciation due to physical deterioration, functional obsolescence, and economic factors.

This method is widely accepted under MPSAS 17 (Property, Plant, and Equipment) and is particularly relevant for public sector entities managing assets such as museums, historical buildings, and monuments. The method provides a structured and objective way to reflect the asset's service potential rather than its market value. Nevertheless, it is important to note that although the cost approach is the most commonly used and reliable in practice, Malaysia does not yet have a dedicated standard specifically for heritage asset valuation (Junainah, 2018). This limitation shows that valuers often rely on general principles from MVS and MPSAS, supplemented by professional judgment and international best practices (Mohamad Hafiz & Amrizah, 2024).

The purpose of valuation for heritage assets in the context of public accounting is to support accrual-based financial reporting, which the Malaysian government has adopted since 2018 under the Public Sector Transformation Policy. This shift aims to enhance transparency, accountability, and fiscal management (Oppio et al., 2024). Valuing heritage assets enables government agencies to recognise and report them in their financial statements, ensuring that the public sector's resources are accurately reflected. It also helps in budgeting, asset management, and policymaking by providing a clearer picture of the government's holdings and their condition (Mohamad Hafiz & Amrizah, 2024).

Valuing government-owned heritage buildings in Malaysia requires a nuanced approach that extends beyond conventional property valuation. These buildings are not only physical structures but also cultural symbols that embody the nation's history, identity, and architectural legacy. Given their unique characteristics and public significance, valuers must consider a range of factors that reflect both the tangible and intangible aspects of value (Fatin Afiqah, 2018). In the Malaysian context, elements such as traditional design, rare building specifications, aesthetic and symbolic significance, structural integrity, and ongoing maintenance play a critical role in determining the worth of these assets (Junainah & Suriatini, 2019). According to Duval et al. (2019), a thoughtful and multidisciplinary assessment ensures that heritage buildings are valued in a way that respects their historical significance while supporting transparent and accountable public sector reporting.

2.9.1 Design

In Malaysia, heritage buildings often reflect a blend of Malay, colonial, Chinese, and Islamic architectural styles. The design is a critical factor in valuation as it represents the building's historical and cultural identity (Chun et al., 2005). For example, pre-war shophouses in Penang or colonial administrative buildings in Kuala Lumpur are valued not only for their structure but for their architectural uniqueness. Valuers must assess how the design contributes to the building's heritage significance and the effect of the design on restoration or reproduction costs.

2.9.2 Building Specification

Building specification includes the materials, construction techniques, and finishes used in the original structure. Many heritage buildings in Malaysia use materials such as chengal wood, lime plaster, or terracotta tiles, which are now rare or expensive. Valuers must consider the availability and cost of these materials when estimating replacement or restoration costs. Specifications also influence the building's durability and the complexity of conservation work (Sandeford, 2005).

2.9.3 Aesthetic Value

Chin et al. (2021) highlighted that aesthetic value refers to the visual and artistic appeal of the building, including decorative elements, symmetry, and craftsmanship. In Malaysia, buildings such as the Sultan Abdul Samad Building or Cheong Fatt Tze Mansion are admired for their intricate details and visual harmony. This value contributes to public appreciation and tourism potential, which, while not directly income-generating, enhances the building's perceived worth.

2.9.4 Building Size

The size of the building affects its functional use and valuation. Larger buildings may have higher replacement costs and require more extensive maintenance (Jamal et al., 2022). In Malaysia, some heritage buildings, such as old train stations or colonial government complexes, are expansive. Valuers must consider how the size impacts restoration logistics, cost, and potential adaptive reuse.

2.9.5 National Value

Many heritage buildings in Malaysia symbolise national identity, historical events, or cultural heritage (Hasif Rafidee, 2015). For instance, Merdeka Stadium holds immense symbolic value as the site of Malaysia's independence declaration. This intangible value is crucial in public sector valuation, as it reflects the building's role in collective memory and national pride, even if it cannot be quantified in monetary terms.

2.9.6 Structural Intactness

The physical condition of a heritage building is essential in determining its current value and the cost of restoration (Sesana et al., 2021). In Malaysia's tropical climate, heritage buildings are vulnerable to humidity, termite infestations, and monsoon damage. Valuers must assess the integrity of foundations, walls, and roofs to estimate the extent of conservation required and the building's remaining useful life.

2.9.7 Quality Maintenance

According to Esraa and Meervat (2023), the ongoing and historical maintenance practices significantly affect a building's value. In Malaysia, some heritage buildings are well maintained by agencies such as the Jabatan Warisan Negara, local authorities, or building owners. Valuers must consider the cost of routine upkeep, the availability of skilled conservators, and the long-term sustainability of preservation efforts.

3.0 Methodology

This study adopts a qualitative comparative review methodology to analyse and evaluate diverse methods used in the valuation of tangible heritage assets in various countries. A comprehensive literature review was conducted by combining academic publications, valuation standards, and case studies to ascertain recognised methodologies and contextual modifications. Countries with diverse heritage valuation practices, including Malaysia, Singapore, Indonesia, the United

Kingdom, Australia, New Zealand, Japan, South Korea, and India, were purposely selected for comparison.

The literature review examined existing valuation standards, guidelines, and case studies relevant to the assessment of cultural heritage assets. At the international level, key references included the International Valuation Standards, as well as the GRAP 103: Heritage Assets. At the national level, references were made to Malaysia's National Heritage Act 2005 (Act 645) and key policy documents, including the MVS and MPSAS. These sources collectively provide the regulatory, institutional, and policy context for evaluating heritage valuation practices in Malaysia and the region.

The thematic synthesis involved systematically reviewing the selected literature to identify recurring concepts, themes, and methodological approaches related to heritage valuation. Sources were first coded based on key thematic categories, including valuation frameworks, methodological challenges, economic versus cultural value dimensions, and policy implications. Each study was then mapped according to its geographical focus (international, regional, or national) to identify convergences and gaps in practice. A thematic synthesis was subsequently conducted to highlight best practices, common challenges, and potential gaps. The valuation methods identified were grouped under major categories, including the cost approach, market approach, income approach, and hybrid or contextual methods. Each approach was analysed based on its purpose, legal framework, applicability, and the extent to which it accommodates the unique characteristics of heritage assets, including historical significance and limited market comparability.

The comparative analysis was conducted by examining international valuation models and guidelines (for example, IVS, MVS, and GRAP 103) with Malaysian valuation approaches, such as those applied by the JPPH and heritage assessment practices guided by the JWN. This analytical process enabled a structured comparison of valuation methodologies, data requirements, and institutional contexts, revealing critical gaps in Malaysia's heritage valuation practices and potential lessons from international experiences. This comparative analysis provides a foundation for developing more context-sensitive and robust valuation frameworks for heritage assets, particularly in regions where standard guidelines are still evolving.

4.0 Discussion

This review has systematically analysed and synthesised the existing studies on approaches to the valuation and measurement of tangible heritage assets, with a particular focus on addressing methodological gaps and practical challenges in the national context. This paper first addresses the challenges faced in valuing heritage assets, which remain complex and evolving across developed and developing countries. In Malaysia, valuation issues that hinder the accurate recognition and disclosure of heritage assets include conceptual ambiguity, inadequate accounting standards, and institutional constraints (Junainah et al., 2021; Mohamad Hafiz & Amrizah, 2024). These issues are compounded by the absence of a standardised heritage valuation framework, difficulties in estimating market value due to the irreplaceable nature of heritage assets, and the limited availability of historical data and archival records (Norida et al., 2012). Additionally, the shortage of skilled valuation professionals and the lack of integration of conservation costs into valuation models further exacerbate the problem.

These challenges are not unique to Malaysia but reflect broader international trends. Halkos et al. (2024), through a meta-analysis of global valuation studies, demonstrated that intangible dimensions such as symbolic meaning, emotional attachment, and cultural identity are frequently underrepresented within standardised frameworks. Similarly, Rosdi (2021) critiqued conventional valuation techniques and argued for the use of alternative non-market methods, such as Stated Preference and Revealed Preference approaches, to better capture the full value of cultural heritage. Nevertheless, these methods face issues of reliability, stakeholder bias, methodological inconsistency, and limited public engagement. Additionally, Biondi and Lapsley (2014) noted that implementing advanced digital tools for documentation and valuation requires substantial financial investment, which creates barriers in resource-constrained settings.

Even developed countries with advanced accounting infrastructures, such as the United Kingdom and Australia, continue to grapple with the limitations of standards such as IPSAS 17 and IPSAS 31. As highlighted by Mohamad Hafiz et al. (2019), these frameworks tend to prioritise quantifiable financial attributes while neglecting sociocultural dimensions vital to heritage valuation. Rosdi (2021) similarly argued that the rigidity of such models can marginalise local narratives and reduce heritage significance to economic metrics.

Building on the limitations of IPSAS 17, IPSASB introduces IPSAS 45, which removes scope exclusions for heritage assets and allows the use of current operational value as a measurement basis (IPSASB, 2023; Hooper et al., 2005). This approach enables public sector entities to assess heritage assets based on their service potential and cultural significance, rather than relying solely on market comparators. In Malaysia, the changes could help resolve inconsistencies in the recognition and reporting of heritage assets. Nevertheless, successful adoption will require inter-agency collaboration and capacity-building efforts to ensure readiness, including the JPPH, JWN, JMM, and various planning and environmental agencies.

5.0 Conclusion

In conclusion, heritage asset valuation confronts a complex array of conceptual, methodological, and administrative challenges. While the manifestations vary across national contexts, the shared struggle underscores the urgent need to reform accounting standards, develop culturally responsive and adaptable valuation frameworks, and embed stakeholder voices within valuation practice. These reforms are essential not only for improving financial accountability and transparency but also for preserving and authentically representing heritage assets as embodiments of cultural identity and historical continuity.

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