

# The Impact of the Current Operational Value (COV) on Public-Sector Asset Management: A Case Study of the Fire and Rescue Department of Malaysia under IPSAS 45 and 46

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## Abstract

**Purpose:** The current study seeks to explore the application of the current operational value (COV) in public-sector asset management by focusing on the Fire and Rescue Department of Malaysia, or *Jabatan Bomba dan Penyelamat Malaysia (JBPM)*, through the adoption of IPSAS 45 and IPSAS 46. The aims are to (i) analyse the technical implications of applying the COV, specifically for motor vehicles and operational equipment at the JBPM, and (ii) determine the impact of the COV on the financial statements of the federal government through simulation.

**Methodology:** A quantitative research design was employed to analyse the asset data of the JBPM, in which the data were gathered through document review and simulation.

**Findings:** The COV provided a more realistic valuation compared to the net book value by reflecting actual usage and remaining service potential. Technically, the COV supported more informed asset planning and performance monitoring. Financially, the COV assisted in altering how expenses and asset values could be reported without directly affecting cash flows, although the COV produce an influence on future capital decisions.

**Limitations:** The present study excluded property and plant from the investigation scope.

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This article is part of a research on The Impact of Current Operational Value (COV) on Public Sector Asset Management: A Case Study of Fire and Rescue Department of Malaysia (*Jabatan Bomba dan Penyelamat Malaysia*) Under IPSAS 45 and IPSAS 46 through *Geran Penyelidikan Perakaunan dan Kewangan Sektor Awam Tahun 2025* (JANM.600-21/1/7 Jld. 2 (83)).

**Practical Implications:** This study provides practical insights for the public sector. Applying COV allows asset valuations to reflect actual usage, improving financial information for budgeting, procurement, and maintenance planning. It supports efficient resource allocation, compliance with IPSAS 46, and enhances transparency and accountability in financial reporting. COV values also strengthen funding justification, investment decisions and inter-agency comparisons based on real asset conditions.

**Originality / Value:** As the COV remains relatively new in practice, the current study could offer several original insights into the technical and financial implications. The findings also provided guidelines to improve financial reporting and decision-making in the public sector.

**Keywords:** Current operational value (COV), Jabatan Bomba dan Penyelamat Malaysia (JBPM), IPSAS 45, IPSAS 46, public-sector accounting

## 1.0 Introduction

Assets, such as property, plant, and equipment (PPE), intangible assets, and investments in the public sector, play vital roles in the operation and service delivery of governmental entities. Infrastructural deterioration can occur without effective asset management, which can hinder governmental performance and suggest the importance of governmental infrastructure for both national and local governments to maintain assets and ensure the effective delivery of public services (Nasir et al., 2022). Traditionally, public-sector entities have employed the historical cost or fair value to value respective assets, although the methods might not reflect the actual service potential of public-sector assets [International Public Sector Accounting Standards Board (IPSASB), 2023]. Therefore, the current study focused on how governmental agencies, especially the Fire and Rescue Department of Malaysia, or JBPM, managed respective assets, such as operational equipment and vehicles.

Two (2) complementary accounting standards, namely IPSAS 45 and IPSAS 46, have been issued by the IPSASB to enhance the quality and consistency of public-sector financial reporting. Specifically, IPSAS 45 aids in guiding the management and reporting of PPE, whereas IPSAS 46 supports IPSAS 45 by explaining the techniques to select the appropriate asset valuation method after the assets have been recorded (IPSASB, 2023). A key feature of both standards is the introduction of the current operational value (COV), which concentrates on the cost to replace the ability of an asset to provide services rather than the market price of the asset. The COV is more relevant to public-sector entities that do not operate for profit. Nevertheless, several challenges have been present in applying the COV. For instance, the COV requires detailed asset data, trained professionals, and advanced valuation techniques, such as depreciated replacement cost (IPSASB, 2023). Numerous public-sector agencies in Malaysia may not contain the resources or systems necessary to effectively implement the COV (Isa et al., 2024). Furthermore, limited research was conducted on how the COV could be adopted, especially in the Malaysian context.

Several concerns have been raised about how to appropriately and effectively apply the COV. Stakeholders, such as Certified Practising Accountant (CPA) Australia and the Malaysian Institute of Accountants (MIA), have expressed uncertainty about the guidance provided in

the exposure drafts and whether the COV would lead to inconsistent or inappropriate asset valuations (IPSASB, 2023). The concern has highlighted a significant gap in both practical application and academic research. Moreover, the introduction of the COV in the IPSAS 45 and 46 has raised certain concerns among various stakeholders. Regarding the Exposure Drafts (ED) 76, 77, and 78, organisations, including CPA Australia and Chartered Accountants Australia and New Zealand (CAANZ), have argued that the drafts do not adequately clarify the implementation of the three measurement techniques, namely the market, cost, and income, under the COV. The Pan African Federation of Accountants has also expressed opposition to the introduction of the COV and advocated for the retention of replacement cost as a measurement basis and the removal of the cost approach in ED 77. Similarly, the MIA has admonished that the COV could lead to inappropriate measurement bases for items within the PPE class, owing to the varying features, measurement objectives, and the nature of financial information. In addition, critics have underscored the lack of clear guidance, the unexplored effectiveness of the COV in asset measurement, and the potential implications of adopting the COV. While several initiatives have been proposed by the IPSASB to facilitate an asset measurement approach in public-sector accounts, the recommended approach remains ambiguous, especially for governmental entities such as the JBPM, which manage substantial infrastructure and operational assets.

A notable research gap concerning the practical application of the COV in real-world settings has been discerned, despite the introduction of IPSAS 46 and its significance for public-sector accounting. Existing literature has primarily focused on the theoretical foundations of fair value and historical cost (DeFond et al., 2020; McDonough et al., 2020; Le Quang, 2021; Tonye & Ikegima, (2022), with limited empirical studies exploring the COV, especially among Malaysian public-sector entities. Additionally, a significant knowledge gap remains on how the implementation of the COV can impact financial reporting, asset valuation, and the broader implications for risk management and audit requirements among governmental agencies. Simultaneously, the absence of localised studies or frameworks on the current subject has demonstrated a critical need for local research to bridge existing gaps and provide public-sector entities with actionable guidelines for aligning with the updated standards. Accordingly, the present study aimed to fill the gaps by conducting a data-driven simulation to assess the financial and operational impacts of the COV.

The current study focused on the JBPM, which managed motor vehicles and operational equipment. While motor vehicles and operational equipment were classified under PPE in accounting, this study did not perform a comprehensive analysis of all PPE assets managed by the JBPM. Particularly, PPE encompasses a broad range of tangible assets, including land, buildings, roads, machinery, transmission networks, ships, and aircraft, which have been outlined in the public-sector accounting standard MPSAS 17 [Malaysian Public Sector Accounting Standards Board (MPSASB), 2023]. Meanwhile, the current study scope was deliberately limited to motor vehicles and operational equipment, as both asset types were crucial to the frontline services, such as fire engines, rescue tools, and related apparatus, of the JBPM. The focus was on assets directly involved in emergency response, wherein availability, performance, and maintenance would be essential for effective service delivery. Moreover, comprehensive data on all PPE assets were either unavailable or impractical to obtain within the study timeframe. A narrower focus allowed for a more in-depth and meaningful analysis of asset condition, utilisation, and management specific to this high-impact category. Concurrently, time, manpower, and logistical constraints justified the need for a targeted scope. In addition,

the transition to utilising the COV presented several challenges in accurately measuring and reporting governmental assets and maintaining operational efficiency. The current study aimed to examine the impacts of the transition and offer insights into how the COV could be effectively applied within the public sector, especially among governmental entities such as the JBPM. The findings could aid in addressing existing gaps by (i) analysing the technical implications of employing the COV compared to current methods and (ii) simulating the impact of the COV on governmental financial statements. Additionally, the current study outcomes could assist in improving asset valuation practices and support more informed financial decision-making in the Malaysian public sector.

## **2.0 Literature Review**

### **2.1 Historical Asset Measurement Method in the Public Sector**

The historical method of asset measurement in the public sector has been subject to debate, particularly in the context of transitioning from cash-based to accrual accounting systems. The method, which has been primarily based on historical cost, has encountered extensive scrutiny for its inability to reflect current asset values, which has prompted discussions on alternative valuation methods. A key approach for asset measurement in public-sector accounting is the historical cost method, which records assets based on the original purchase price or acquisition cost at the time of purchase. The approach relies on verifiable transaction data and emphasises objectivity and reliability to enhance transparency and accountability in managing public finances. Hence, the historical cost method has provided a clear and transparent audit record, especially in the public sector, where stewardship and responsible management of public resources are vital. Nonetheless, the method might not constantly reflect the current market value or replacement cost of assets accurately, which can result in potential undervaluation due to different factors, such as depreciation and inflation. Recent literature has also revealed that the historical cost method remains the prevalent measurement basis in various jurisdictions due to its simplicity, reliability, consistency, and lower risk of manipulation, although certain public entities have explored fair value or revaluation models to complement the method for improved quality and relevance of financial reporting (Alam & Zaman, 2021; Hassan & Haniffa, 2023).

### **2.2 IPSAS 45: Property, Plant and Equipment**

The IPSAS 45 has superseded IPSAS 17, Property, Plant and Equipment, by introducing the COV as a measurement basis within the updated current value model for applicable assets after being published in May 2023. The standard has also delineated the characteristics of heritage and infrastructure assets and offered alternative guidance on the recognition and measurement of assets in the public sector (IPSASB, 2023).

### **2.3 IPSAS 46: Measurement**

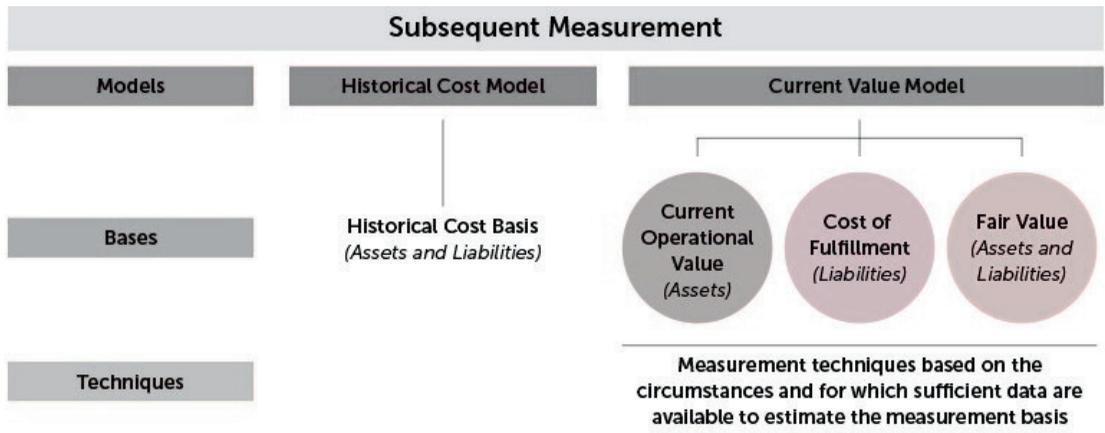
The IPSAS 46 has introduced an alternative standard for measuring assets and liabilities to accurately reflect respective costs, operational capabilities, and financial values. Simultaneously, it has incorporated general guidance on fair value and introduced the COV, which has assisted in addressing the need for an alternative measurement method, specifically for certain public-sector assets (IPSASB, 2023).

### 2.3.1 Initial Measurement

- Paragraph 7 of IPSAS 46 states that assets and liabilities should be initially measured at the transaction price and adjusted for any related transactional costs.
- According to Paragraph 6, the transaction price is defined as the amount paid to acquire, construct, or develop an asset, or the amount received when assuming a liability.

### 2.3.2 Subsequent Measurement

- Figure 1 depicts the subsequent measurement after the initial measurement. Particularly, Paragraph 17 of IPSAS 46 allows entities to choose an accounting policy for measuring assets and liabilities, either utilising a historical cost basis or a current value basis, which determines the measurement method to be adopted in the future.



**Figure 1: Subsequent Measurement**

Source: IPSASB, 2023

### 2.4 Current Operational Value (COV)

The COV is a measurement basis specifically developed to address the key service delivery characteristics of various public-sector assets. The COV represents the amount an entity would pay for the remaining service potential of an existing asset or the conditions of asset consumption present at the measurement date, according to the Statement of Financial Position (IPSASB, 2023). Essentially, the COV measures assets in the existing usage condition to capture the unique characteristics of assets held by the public sector entities. The term also refers to how an asset or group of assets is utilised, which generally reflects the policy objectives of the entity operating the asset (IPSASB, 2023). For example, the JBPM focuses on the safety and well-being of the public, with fire stations and operational equipment operated to deliver emergency services instead of generating commercial returns.

## 2.5 Measurement of COV

Measurement is a key element of financial statements, which has continuously involved the application of complex models and professional judgment that are inherently subjective. Selecting an appropriate measurement basis for assets and liabilities is pivotal to supporting the objectives of public-sector financial reporting by providing users with integral information to evaluate:

- The cost of services delivered during the reporting period, whether measured in historical or current terms;
- The operational capacity of a governmental entity to continue delivering services in the future through existing physical resources; and
- The financial capacity of a governmental entity to support and finance ongoing activities (IPSASB, 2024).

Measurement is fundamental to producing high-quality financial information. Assigning assets a monetary value is integral to recognising the assets in the financial statements, which can be achieved through the measurement process by selecting both the appropriate measurement basis and method (Vardiashvili, 2019). The IPSAS 46 has introduced a holistic framework, which has integrated key concepts and recommendations related to measurement into a single standard that elucidates how different measurement approaches should be practically applied across the public sector. The standard primarily emphasises the determination of current value by introducing the following updated approaches to substitute previous methods:

- COV: Measuring assets;
- Cost of Fulfilment: Measuring liabilities; and
- Fair Value: Applied to both assets and liabilities to replace the former market value approach.

The guidance on fair value is consistent with the framework established in IFRS 13 Fair Value Measurement (Druzhilovskaya, 2021; Institute of Chartered Accountants in England and Wales, 2023). Fair value is appropriate when an asset is primarily held for the ability to generate economic benefits, such as producing cash inflows, reducing cash outflows, or for sale. Nevertheless, the IPSASB has ascertained that fair value is not suitable for measuring the current value of assets employed in operations. Instead, the IPSASB has introduced the COV as a more relevant basis for such assets (Druzhilovskaya, 2021; Institute of Chartered Accountants in England and Wales, 2023). Both the market approach and the cost approach can be applied to determine the COV. An active market may also exist for an identical asset in certain circumstances, which suggests that the market approach is a straightforward and effective valuation method (Vardiashvili, 2025). The market approach involves utilising prices and relevant data from market transactions involving identical or comparable assets, liabilities, or groups of assets and liabilities (Maisuradze & Vardiashvili, 2023). When such an active market exists, the COV can be measured based on:

- The price to acquire an identical or similar asset in that active market, or
- The cost to produce an identical or similar asset (IPSASB, 2023).

The existence of an active market becomes less probable when assets have become more specialised. Thus, the cost approach becomes more suitable. For example, adjustments should be performed to reflect the current condition and remaining useful life when market prices are only available for new assets and the asset being valued has been utilised. The fundamental objective remains the same regardless of the approach being employed, namely, to represent the value of the asset in the current state and function for service delivery under existing market conditions (IPSASB, 2023). A reliable acquisition price for a similar asset may not be available in the absence of an active market. Therefore, the COV should be estimated based on the cost to develop or produce the asset through accessible pricing data. For instance, numerous specialised fire and rescue department assets, such as custom-built fire trucks or higher-capacity rescue vehicles, do not contain active markets. The assets frequently cannot be purchased as complete and comparable items, which requires calculating the cost of individual components, such as water tanks and engines, and the cost of assembling the components into a similar asset for estimating the COV. The estimates should also be calibrated for respective age, condition, and functionality (IPSASB, 2023).

### **3.0 Research Methodology**

#### **3.1 Research Design**

The current study adopted a quantitative research design to offer an evidence-based understanding of the research objectives. The data were collected from governmental agencies under the jurisdiction of the Kementerian Perumahan dan Kerajaan Tempatan (KPKT) by focusing on the JBPM offices located in Putrajaya and Meru Raya Ipoh. The selection was guided by the accessibility of relevant financial and operational data, on top of the willingness of the agencies to participate in the present study. The quantitative analysis was centred on secondary data derived from the most recent financial statements and asset registers of the JBPM. Specifically, the current study assessed information related to motor vehicles and specialised equipment utilised in fire and rescue operations. The focus enabled a systematic evaluation of asset utilisation, depreciation management, and resource allocation efficiency. Moreover, financial indicators and asset-related data were appraised to identify patterns and trends that could reflect the operational effectiveness and fiscal accountability of the organisation. The present study also provided empirical insights into the management and optimisation of public assets within a critical service agency by applying a structured quantitative approach. The findings were expected to contribute to a deeper understanding of how quantitative data could inform strategic asset management decisions, enhance resource sustainability, and support evidence-based policy formulation within the broader framework of public-sector management.

#### **3.2 Sampling**

The present study employed a purposive sampling technique by focusing on agencies under the KPKT, specifically the JBPM offices located in Putrajaya and Meru Raya Ipoh. The offices were selected based on the availability, completeness, and reliability of financial and asset management data. The quantitative data were extracted from official secondary sources, namely the most recent audited financial statements, logbooks, and asset registers, maintained by the JBPM. The documents aided in offering comprehensive information on the tangible assets managed by the governmental agency, especially motor vehicles and operational

equipment utilised in fire and rescue services. The selection of the data sources served to ensure high levels of consistency, comparability, and relevance to the study objectives of evaluating asset utilisation and management efficiency. Hence, the quantitative analysis was grounded in accurate, verifiable, and contextually relevant financial information by employing purposive selection of secondary data, which aided in enhancing the robustness and validity of the research findings.

### 3.3 Data Collection Procedure

The data collection procedure was according to the quantitative design. Quantitative data were collected from two primary sources, namely the asset listing provided by the JBPM and the asset register maintained by the KPKT. The listing from the JBPM contained detailed information on physical assets, including asset identification, acquisition cost, and asset description, although the list did not include depreciation amounts. Conversely, the listing from the KPKT encompassed both acquisition cost and accumulated depreciation. The two datasets were reconciled and matched based on asset identifiers to ensure consistency and accuracy, which enabled the calculation of the net book value (NBV) via acquisition cost and depreciation data. The finalised dataset constituted the basis for simulating asset values under both the conventional NBV method and the proposed COV approach.

### 3.4 Measurement of COV

In accordance with IPSAS 46: Measurement, it is proposed that COV be adopted as a measurement basis for specialised public sector motor vehicles and operational equipment not traded in active markets (e.g. emergency vehicles). COV reflects an entity-specific entry price, representing the cost the entity would incur to replace the remaining service potential of the motor vehicles and operational equipment in its current condition and usage.

Consistent with IPSAS 46, paragraph 25(a), which stated that: “Current operational value differs from fair value because it: is explicitly an entry price and includes all the costs that would necessarily be paid for the remaining service potential of an asset” (IPSASB, 2023, p. 9).

In line with this principle, IPSASB (2025) introduces COV as a comprehensive framework for measuring the amount an entity would pay for an asset’s remaining service potential in the most cost-effective and orderly manner. Appendix B of IPSAS 46 explains that COV may be determined using observable market prices where available or, in the absence of an active market, through estimated development or production costs of a similar asset. Furthermore, the IPSASB (2025) extends the application of COV to right-of-use assets under IPSAS 43, acknowledging it as an appropriate measurement basis under either the market or cost approach. The Board concludes that discounting cash flows, while typically associated with income-based valuation, can be conceptually valid when applied under these approaches to estimate the COV of such assets (IPSASB, 2025).

IPSAS 46 recommends that asset measurement should reflect the asset’s current age, functionality, and condition by considering physical, functional, and economic obsolescence.

(a) Physical Obsolescence – Physical obsolescence relates to any loss of service potential due to the physical deterioration of the asset or its components resulting from its age and use. In assessing physical obsolescence, an entity should also consider any probable future routine, regular maintenance, as such maintenance may provide insight into the asset or its components' useful lives and their rate of deterioration.

(b) Functional Obsolescence – Functional obsolescence relates to any loss of service potential resulting from inefficiencies in the asset that is being valued compared with its modern equivalent – is the asset suitable for its current function? Functional obsolescence might occur because of advances or changes in the design and/or specification of the asset, or because of technological advances. For example, advances in health care technology might mean that the asset in use is outdated, or technological advances in educational material could mean that chalk/white boards would be replaced by digital screens. Such advances will need to be incorporated into the assessment of functional obsolescence.

(c) Economic (or External) Obsolescence – Economic obsolescence relates to any loss of utility caused by economic or other factors outside the control of the entity. This may include, for example, capacity that is excess to the usage requirements of the existing asset (IPSASB, 2023, p. 163).

In essence, the implementation of the formula for measuring COV must align with IPSAS guidelines, whereby the Operating Capacity Factor (OCF) should be assessed according to IPSAS's prescribed approach for valuing assets in the public sector. Under these standards, the COV represents the amount the entity would pay to acquire an asset with the same service potential or operating capacity as the existing one, adjusted for its current condition and circumstances. The OCF is a critical component because it ensures that the valuation reflects the asset's operational usefulness, rather than its market or resale value. When applying this concept, IPSAS requires the consideration of several factors; therefore, the formula to calculate OCF is formed as below:

i) To illustrate for physical deterioration (wear and tear of the asset) measurement:

$$1 - (\text{Total repair/maintenance cost} \div \text{Total cost of asset}) \times 100\%$$

ii) To illustrate for functional obsolescence (loss of utility due to outdated design or technology):

$$1 - (\text{Cost of technological component in the new asset} \div \text{Total replacement cost of new asset}) \times 100\%$$

iii) To illustrate for economic obsolescence (external economic factors reducing the asset's usefulness):

$$1 - (\text{Remaining service potential (km/hours)} \div \text{Total expected maximum utilisation (km/hours)}) \times 100\%$$

These factors together define the OCF, which influences the calculation of COV. In practical terms, this means that when entities measure asset values, they must evaluate how much of the asset's service potential remains, considering these three aspects. Therefore, the implementation of the COV formula under IPSAS must integrate OCF to ensure the valuation accurately represents the current operational capacity of the asset, consistent with public sector accounting principles.

By extension, these principles indicate that COV should include all costs necessary to acquire equivalent motor vehicles and operational equipment with comparable service potential. To operationalise this measurement concept in the public sector context, the proposed formula is as follows:

$$\text{COV} = \text{Net Book Value} \times \text{Operating Capacity Factor (OCF)}$$

However, the limitation of this technique highlighted that OCF may be subjectively determined, based on internal assessments or condition ratings. Limited data reliability and lack of standardised scoring criteria can reduce verifiability, comparability, and auditability of COV figures. This subjectivity introduces measurement bias and reduces the faithful representation of asset value.

### 3.5 Ethical Considerations

The present study considered all relevant instructions. The Scientific and Ethical Review Committee of the current researcher's university also approved the survey questionnaire with the approval number: Re: U/SERC/56(A)-549/2025. The respondents' information was managed with the highest confidentiality level to guarantee full privacy.

### 4.0 Data Analysis and Findings

The first objective of this study is to analyse the technical implications of applying the COV for post-recognition measurement of motor vehicles and operational equipment under IPSAS 45 and IPSAS 46, compared to historical cost. Below are findings from the quantitative data collection.

Table 1 and Table 2 reveals that most motor vehicles in JBPM Putrajaya and JBPM Meru Raya Ipoh respectively, when assessed using COV, reflect lower values than their NBV using the historical cost method, implying greater operational consumption or diminished physical condition. The results support the notion that COV provides a more faithful representation of an asset's current service potential compared to historical cost-based depreciation alone, as it considers the asset's existing condition and remaining operational capacity.

In this study, the assessment also involved a review of the physical condition of motor vehicles and operational equipment at both JBPM Meru Raya, Ipoh and JBPM Putrajaya. Physical verification, inspection reports, and maintenance records were examined to validate whether the COV figures corresponded to the actual asset conditions observed on-site. The findings indicated that, in most cases, the COV values were consistent with the real physical state of the assets. For instance, the higher the consumption of the asset, the lower the COV.

This consistency between the COV valuations and the physical condition evidence strengthens the reliability of COV as a measurement basis for reflecting true service potential in public sector assets. It also highlights the importance of combining quantitative valuation techniques with qualitative assessments such as condition surveys and maintenance histories to ensure accurate and meaningful asset valuations. This supports the notion that COV offers a more truthful representation of an asset's current service potential than historical cost-based depreciation alone. It can be proven based on the findings shown in Table 1. The three (3) Kawasaki Motor Rapid Rescue Vehicles (RRV) exhibit varying levels of remaining consumption, which are further reflected in their COV. This variation highlights how COV effectively captures the operational and physical differences among assets, offering a more accurate representation of their service potential.

According to IPSAS 46, COV reflects the value of an asset in its current state, considering usage, condition, and cost of replacement. The divergence between the two (2) locations reflects the core intent of IPSAS 46 and provides a valuation method that adapts to context and better enlightens decision-making, asset management, and financial reporting. The application of IPSAS 46 and support from past studies further advocate for the COV method as a more realistic and policy-relevant measure in public asset management. While historical cost accounting remains widely used, it has received continued criticism due to its inability to reflect current economic conditions and asset utility. As noted by Simanjuntak et al. (2023), many elements of financial statements prepared using the historical cost principle do not accurately represent economic value, which challenges the fundamental characteristics of relevance and reliability in financial reporting. Therefore, adopting COV aligns better with the qualitative objectives of financial statements by providing a more accurate and meaningful assessment of an asset's remaining service potential, particularly in operationally diverse environments such as those observed in JBPM.

**Table 1: JBPM, Putrajaya**

Asset	Cost (RM)	Accumulated Depreciation (as on 31.12.2024) (RM)	NBV (RM)	Basis	Lifespan/ Utilisation	Total Expected Maximum	OCF	COV (RM)	NBV (RM)	Difference (NBV - COV) (RM)
<b>Motor Vehicle</b>										
PACUAN 4 RODA (4X4)/ TOYOTA HILUX	96,500.00	(64,333.33)	32,166.67	km	164,479.00	200,000.00	0.1776	5,712.96	32,166.67	26,453.71
PACUAN 4 RODA (4X4)/ RAPID RESCUE VEHICLE (RRV)	490,000.00	(457,333.34)	32,666.66	km	156,289.00	200,000.00	0.2186	7,139.46	32,666.66	25,527.20
KAWASAKI MOTOR RAPID RESCUE VEHICLE (RRV)	84,400.00	(30,008.91)	54,391.09	km	16,109.00	100,000.00	0.8389	45,629.23	54,391.09	8,761.86
KAWASAKI MOTOR RAPID RESCUE VEHICLE (RRV)	84,400.00	(30,008.91)	54,391.09	km	15,128.00	100,000.00	0.8487	46,162.81	54,391.09	8,228.28
KAWASAKI MOTOR RAPID RESCUE VEHICLE (RRV)	84,400.00	(30,008.91)	54,391.09	km	41,692.00	100,000.00	0.5831	31,714.36	54,391.09	22,676.73
AERIAL LEDDER PLATFORM (ALPT)	3,698,200.00	(3,482,471.00)	215,729.00	km	7,136.00	250,000.00	0.9715	209,571.23	215,729.00	6,157.77
LIGHT FIRE RESCUE TENDER (LFRT)	1,056,000.00	(884,400.00)	171,600.00	km	80,480.00	250,000.00	0.6781	116,358.53	171,600.00	55,241.47
LIGHT FIRE RESCUE TENDER (LFRT)	1,056,000.00	(884,400.00)	171,600.00	km	73,320.00	250,000.00	0.7067	121,273.15	171,600.00	50,326.85
SCANIA (BKN 1396) FIRE RESCUE TENDER	1,861,157.00	(1,349,338.82)	511,818.18	km	41,692.00	250,000.00	0.8332	426,463.29	511,818.18	85,354.89
<b>Operational Equipment</b>										
KOMPUTER MEJIA	3,145.00	(2,197.46)	947.54	hours	78,840.00	113,880.00	0.3077	291.55	947.54	655.99
RADIO DUJA HALA	3,951.00	(2,765.70)	1,185.30	hours	113,880.00	175,200.00	0.3500	414.86	1,185.30	1,600.16
RADIO DUJA HALA	3,951.00	(2,765.70)	1,185.30	hours	113,880.00	175,200.00	0.3500	414.86	1,185.30	1,600.16
PERALATAN DATA KOMUNIKASI FREKUENSI RADIO	5,000.00	(3,500.00)	1,500.00	hours	113,880.00	175,200.00	0.3500	525.00	1,500.00	2,025.00

**Table 2: JBPM, Meru Raya Ipoh**

Asset	Cost (RM)	Accumulated Depreciation (as on 31.12.2024) (RM)	NBV (RM)	Basis	Lifespan/ Utilisation	Total Expected Maximum	OCF	COV (RM)	NBV (RM)	Difference (NBV - COV) (RM)
<b>Motor Vehicle</b>										
AMBULANS TOYOTA HIACE	490,000.00	(351,166.67)	138,833.33	km	139,397.00	200,000.00	0.3030	42,068.58	138,833.33	96,764.75
BOT PENYELAMAT (ALUMINIUM)	74,990.00	(33,120.58)	41,869.42	km	44,000.00	74,990.00	0.4133	17,302.75	41,869.42	24,566.67
FIRE RESCUE TENDER (FRT) SCANIA	710,000.00	(1,005,833.33)	704,166.67	km	124,100.00	250,000.00	0.5036	354,618.34	704,166.67	349,548.33
HONDA ET12000 GENSET	41,900.00	(16,760.00)	25,140.00	km	900.00	250,000.00	0.9964	25,049.50	25,140.00	90.50
<b>Operational Equipment</b>										
KOMPUTER MEJAJ DESKTOP	2,000.00	(1,782.05)	217.95	hours	96,360.00	113,880.00	0.1538	33.53	217.95	184.42
WALKIE TALKIE (PORTABLE COMM RADIO)	4,169.00	(1,858.68)	2,310.32	hours	70,080.00	175,200.00	0.6000	1,386.19	2,310.32	3,696.51

The second study objective was to affirm the direct effects of applying the COV on the financial statements of the federal government through data simulation. The findings demonstrated that the depreciation expenses and actual repair and maintenance costs for the four-wheel drive (4X4) or the RRV through the historical cost method, which were recorded in the Statement of Financial Performance. Comparatively, only the consumption was included as part of the total expenses under the COV method. The adoption of the COV method in public-sector accounting introduced significant implications for financial reporting. Table 3 displays the effect of applying the COV on the Statement of Financial Performance, the Statement of Financial Position, and the Statement of Cash Flows through a comparative perspective against the traditional historical cost approach, which is in line with IPSAS 46 principles.

**Table 3: Impact of the COV on the Financial Statement**

Year	Historical Cost				Current Operational Value (COV)				
	Cost (RM)	Depreciation (RM)	Accumulated Depreciation (as at 31.12.2024) (RM)	NBV (RM)	NBV b/f	Lifespan/ Utilisation	Total Expected Maximum	OCF	COV (RM)
2022	490,000	32,667	392,000	98,000	-	130,241	200,000	0.3488	34,181
2023	490,000	32,667	424,667	65,333	34,182	143,265	200,000	0.2837	9,696
2024	490,000	32,667	457,333	32,667	9,697	156,289	200,000	0.2186	2,119

#### 4.1 Statement of Financial Performance

Depreciation was calculated on a straight-line basis under the historical cost method, which provided a fixed annual expense. Specifically, the asset, which was initially valued at RM490,000, was depreciated by RM32,667 annually and led to an NBV of RM98,000 in 2022, RM65,333 in 2023, and RM32,667 in 2024. The values were recognised as depreciation expenses in the Statement of Financial Performance regardless of the actual usage or condition of the asset. Contrarily, the COV method recognised the consumption of service potential in the long term rather than relying on rigid depreciation schedules. Table 4.3 demonstrates that the COV of the asset decreases from RM34,181 in 2022 to RM9,696 in 2023, which indicates a consumption-based expense of only RM24,485 (RM34,181 minus RM9,696) that is significantly lower than the RM32,667 recorded under the historical approach. The difference was more pronounced at JBPM Putrajaya, where assets were underutilised (lower consumption) or well-maintained (higher retained value). Resultantly, the COV could lead to higher reported surpluses in the Statement of Financial Performance.

#### 4.2 Statement of Financial Position

The historical cost method presented asset values by subtracting accumulated depreciation from the acquisition cost in the Statement of Financial Position. The NBV of the asset estimated under the method was reduced to RM32,667 in 2024, whereas the COV method reported the asset at RM2,119 in the same year, which was more than double the NBV. The discrepancy suggested that the COV incorporated remaining service potential, the condition of the asset, and replacement cost in the least costly manner. For example, the NBV under historical cost was RM65,333 in 2023, whereas the corresponding COV was RM9,696. The variation illustrated that the COV approach could offer a more operationally grounded and context-

specific valuation, which could be useful in settings such as JBPM Putrajaya and Meru Raya Ipoh, where asset usage patterns significantly differed. In addition, the COV method could enable a more accurate representation of asset utility, which was consistent with IPSAS 46 by more accurately reflecting the current ability of an asset to provide services. Simanjuntak et al. (2023) supported the perspective by noting that historical cost values frequently could not represent the actual condition and utility of public assets, especially in service-driven sectors.

### **4.3 Statement of Cash Flows**

The COV method did not involve direct cash movements and alter actual cash inflows or outflows. Nevertheless, the impact of the COV on the Statement of Cash Flows would emerge indirectly. Adjustments in asset valuation under the COV are generally non-cash and reflected in the reconciliation of surplus to net cash from operating activities when the indirect method has been employed. Depreciation is a fixed non-cash expense of RM32,667 annually under the historical cost method, which results in consistent adjustments to reconcile the surplus to net cash from operating activities, irrespective of the actual condition or usage of the asset. Contrastingly, the COV method records depreciation-equivalent adjustments based on the actual consumption of service potential. For instance, the COV-based expense was RM24,485 in 2023, which was lower than the RM32,667 under the historical cost model. Therefore, the adjustment to reconcile operating surplus to cash flows would also be lower, which led to a relatively higher reported net cash from operating activities for the same year. Furthermore, the COV approach could provide more accurate insights for capital expenditure and asset replacement planning by recognising retained service potential, whereas replacement decisions might rely on accounting life rather than actual condition under the historical cost approach, which could trigger premature cash outflows.

### **5.0 Conclusion**

The present study provided robust empirical evidence on the applicability and advantages of adopting the COV method in the valuation and management of public-sector assets. A comparative analysis of historical cost and COV approaches across different geographical contexts revealed that the COV could offer a more accurate, relevant, and operationally aligned representation of asset values. Contrary to the traditional historical cost model, which frequently could not reflect the economic reality of the condition and service potential of an asset, the COV could integrate asset usage, physical condition, and location-based variables into valuation practices to improve the quality of financial reporting. The COV not only strengthened the reliability and transparency of financial statements according to IPSAS 46 but also supported informed policy and operational decisions by aligning asset data with current usage and performance metrics. Meanwhile, the differences observed between JBPM Putrajaya and JBPM Meru Raya Ipoh highlighted the contextual strength of the COV approach in capturing operational realities across diverse environments. Nonetheless, successful implementation requires robust institutional readiness, including skilled personnel, unambiguous valuation frameworks, and consistent audit oversight to ensure compliance and comparability. Hence, the COV method represents a significant transition in public-sector asset management, with the adoption of the method potentially leading to improved fiscal responsibility, enhanced strategic planning, and increased stewardship of public resources. Policymakers and financial managers are also encouraged to adopt the COV as an accompaniment to existing valuation

models, especially in environments where asset utilisation and operational intensity profoundly vary.

### **5.1 Practical Implications**

The current study offered several practical implications for the public sector. Particularly, the COV allows for asset valuations that are more aligned with actual operational usage, which can assist in improving the relevance of financial information employed in budgeting, procurement, and maintenance planning. Concurrently, the COV can enable more tailored and efficient resource allocation for departments such as JBPM, where asset usage varies by location, which can reduce the risk of underutilisation or premature replacement. Adopting the COV can also support compliance with IPSAS 46 and ensure that public-sector entities report assets based on remaining service potential rather than arbitrary historical costs. Hence, the truthfulness and accountability of financial reporting can be enhanced, which reinforces internal audit processes and external transparency. The COV values can also provide a useful reference for justifying funding needs, informing capital investment decisions, and designing cost-effective asset replacement cycles. Moreover, inter-agency comparisons can become more meaningful when valuations are based on real-time asset conditions rather than uniform depreciation schedules, which allows central agencies or ministries to perform more informed macro-level decisions on funding and performance benchmarking.

### **5.2 Limitations and Recommendations**

The current study conducted a foundational analysis of COV implementation in the public sector. Nevertheless, several limitations exist. The analysis was based on a limited set of asset categories, namely motor vehicles and operational equipment, and a small geographical sample size (Putrajaya and Meru Raya Ipoh), which restricted the generalisability of the findings across other departments or jurisdictions with different asset profiles or operational contexts. The accuracy of the COV also highly depended on professional judgment, the availability of market data, and expertise. The method requires estimates of entry price, current usage, and remaining service potential, and this inherent subjectivity may affect consistency and comparability when not properly standardised. Additionally, the current study primarily concentrated on financial statement impacts and did not evaluate broader outcomes, such as cost savings, efficiency gains, or public service delivery improvements, following COV adoption. The broader operational outcomes could offer a more holistic picture of COV effectiveness.

### **5.3 Recommendations for Future Research**

Future researchers can explore the application of the COV across a wider range of asset types and public-sector agencies, including high-value infrastructure and Information and Communication Technology (ICT) equipment assets. The exploration may aid in determining whether the benefits observed in this study are consistent across more complex or service-critical assets. Longitudinal studies should also be conducted to assess the long-term financial and operational impacts of COV implementation, such as how the COV would influence asset lifecycle costs, funding efficiency, or capital expenditure planning over multiple years. Furthermore, more research can be performed on stakeholder readiness, change management, and training frameworks to support a nationwide transition to COV-based accounting, including the role of central agencies, audit institutions, and professional bodies.

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