



ISSN: 2222-6990

An Overview of Asset Management in Malaysian Government Agencies

Ahmad Tajudin, I. K. Norziaton, Aida Hazlin Ismail

To Link this Article: http://dx.doi.org/10.6007/IJARBSS/v12-i12/15693

DOI:10.6007/IJARBSS/v12-i12/15693

Received: 15 October 2022, Revised: 17 November 2022, Accepted: 29 November 2022

Published Online: 10 December 2022

In-Text Citation: (Tajudin et al., 2022)

To Cite this Article: Tajudin, A., Norziaton, I. K., & Ismail, A. H. (2022). An Overview of Asset Management in Malaysian Government Agencies. *International Journal of Academic Research in Business and Social Sciences*, 12(12), 1105 – 1123.

Copyright: © 2022 The Author(s)

Published by Human Resource Management Academic Research Society (www.hrmars.com)

This article is published under the Creative Commons Attribution (CC BY 4.0) license. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non0-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this license may be seen at: http://creativecommons.org/licences/by/4.0/legalcode

Vol. 12, No. 12, 2022, Pg. 1105 – 1123

http://hrmars.com/index.php/pages/detail/IJARBSS

JOURNAL HOMEPAGE

Full Terms & Conditions of access and use can be found at http://hrmars.com/index.php/pages/detail/publication-ethics





ISSN: 2222-6990

An Overview of Asset Management in Malaysian Government Agencies

Ahmad Tajudin

Accountant General's Department of Malaysia

I. K. Norziaton, Aida Hazlin Ismail

Faculty of Accountancy, Universiti Teknologi Mara Shah Alam

Abstract

Asset management is a "joined-up" organizational activity that entails many disciplines such as engineering, operations, management and maintenance. The Malaysian government is committed to improving asset management performance to ensure that assets are managed in a systematic, holistic, and sustainable manner. However, the Auditor-General Reports from 2014 to 2020 discovered that the majority of government entities are incapable of adequately managing their assets. The issues concerning their weak asset management performance have also been raised repeatedly by the Auditors-General, indicating the problem's seriousness. Thus, this study seeks to investigate the current asset management and the factors affecting asset management performance in government agencies. A total of five officers from the government department responsible for making policy for management procedures and examining asset management performance in government agencies have been interviewed. Findings showed that government agencies' asset management practice and performance were generally satisfactory. The government's asset management policies and processes were adequate and updated. However, several government agencies still do not comply with asset management procedures resulting in their asset management performance being affected. Accounting practice, training policy, asset misappropriation and information systems were identified as significant contributors to levels of asset management performance.

Keywords: Asset Management, Asset Management Practice, Asset Management Performance, Government Agencies, Malaysia.

Introduction

Asset management (AM) is a "joined-up" organisational activity that aims to maximize the value of an organisation's resources. It is a strategic and integrated process that involves multiple disciplines such as engineering, operations, management, and maintenance to maximize the life of an asset and its return from assets (Amadi-Echendu et al., 2010; Laue et al., 2014; Mirhosseini & Keynia, 2021). In the public sector, to ensure that the services are delivered efficiently, the government needs sufficient resources and facilities. According to the 12th Malaysia Plan, the budget for government procurement of assets and facilities is

estimated to reach RM 400 billion (Sabri, 2021). Additionally, it is believed that the present public and government assets and facilities are valued in the trillions of ringgits. With the government's expenditures steadily increasing, government agencies' effective asset and facility management are indispensable.

Assets must be adequately provided and managed. Without proper management of an AM system, service delivery could be affected (Kusnawati et al., 2019; Backer & Yusoff, 2015). Thus, assets should be effectively managed to ensure the quality of service delivered to the public is consistent, and the resources of a public body can be increased (Rasolonjatovo et al., 2015) and may hinder government wastage funds.

Since 1967, the government has released several guidelines to provide a systematic and comprehensive approach to AM (Buang, 2011), enabling government agencies to execute services efficiently and effectively as part of the New Public Management (NPM) public sector reforms. In 2009, the government introduced the Government Asset Management Policy (GAMP) and Total Asset Management Manual (TAMM) to strengthen AM. GAMP demands an integrated and comprehensive approach to AM at all stages, including planning, creation, usage, maintenance, inspection, disposal, and write-off procedures, to ensure that assets are in good condition, safe to use, cost-effective, and long-lasting. The Government is committed to implementing transformation in AM so as to provide quality services to the people (Yusof, 2013). Henceforth, GAMP and TAMM version 2 was issued in November 2021.

Unfortunately, Auditor-General's Reports (from 2014 to 2020) have revealed the dismal fact that most government agencies are incapable of efficiently managing their assets. Wastefulness, extravagance, and mismanagement have been identified, implying that public funds have not been used wisely. This situation affects AM performance's effectiveness, efficiency, and economics in government agencies (Buang, 2011; Azmi & Ismail, 2022; Uklala et al., 2021). Over the years, AM performance has consistently ranked lowest compared to other financial management accountability index components.

The issues concerning their weak AM performance have also been raised repeatedly by the Auditors-General, indicating the problem's seriousness. However, enhancing AM is a complex process that is influenced by several factors such as accounting practice (Leviakangas et al., 2019; Ali et al., 2019), training policy (Abdullah & Muhammad, 2020; Mazlan & Mohammed, 2008; Backer & Yusoff, 2015), information system (Arlini et al., 2014; Ekayanti et al., 2018; Sanjaya & Utama, 2020) and asset misappropriation (Effiok et al., 2012; Majid et al., 2014; Norziaton et al., 2018) Thus, this work attempt to address the following research questions:

RQ1-How does the current asset management being practiced by government agencies and their performance.

RQ3-What are the factors affecting asset management performance in government agencies

To answer above research questions, two research objectives has been developed that is; to investigate the current asset management being practiced by government agencies and their performance; and to identify the factors affecting asset management performance in government agencies.

Previously, much research on AM has been conducted in developed countries, and limited research has investigated the issue of AM in developing countries, specifically in Malaysia (Abdullah & Muhammad, 2020; Hanis et al., 2011; Ismail et al., 2019; Backer & Yusoff, 2015; Obicci, 2019; Sanjaya & Utama, 2020; Tirayoh et al., 2021). Thus, it is vital to examine the AM in Malaysia ,where the study's outcomes would allow government agencies

Vol. 12, No. 12, 2022, E-ISSN: 2222-6990 © 2022 HRMARS

to take appropriate measures to improve AM performance because it is becoming increasingly crucial in optimizing government performance.

Literature Review Asset Management

Asset management can be defined as systematic and coordinated activities and practices through which an organisation optimally and sustainably manages its assets and asset systems, associated performance, risks, and expenditures over its life cycles to achieve its organisational strategic plan (BSI, 2008). The United States Department of Transport described AM as a comprehensive process for cost-effective asset maintenance, upgrading and operations (FHWA, 2007). In short, AM can be regarded as a combination of engineering fundamentals, organisational processes, and economic theory.

AM comprises several processes in maintaining an asset's function to ensure it performs effectively as well as has cost and risk control to accomplish the objectives and ensure service delivery by agencies (TAMM, 2021). Managing the assets efficiently allows an organisation to create, enhance, and sustain the organisation's operation. Thus, the key challenge in achieving effective AM practice is establishing alignment between assets objectives and managing multiple actors with different interests (Schraven et al., 2011) because it involved strategic, tactical and operational aspect to be managed systematically.

Effective AM allows an organisation to increase economic productivity (Sara et al., 2021) and save money in the long term (Mastroianni et al., 2021). Hence, the government must formulate sufficient AM policies (Hanis et al., 2010) to achieve its goals. The focus of AM is on the efficient management of an asset's life cycle, from acquisition, usage, maintenance, and disposal.

Asset Management Practice in the Malaysian Public Sector

The Malaysian Public sector has used the Government Asset Management Policy (GAMP) as the main set of guidelines for managing assets. Total Asset Management (TAMM), on the other hand, was established through General Circular 1/2009 to support the GAMP emphasis on managing government property assets systematically and holistically to achieve optimal benefits. It identifies the AM implementation strategy, which involves governance, human resource, system and procedure, and technology. The GAMP and TAMM has been reviewed and amended in 2021 to ensure it has been updated and reflected the current situation. Four categories of assets are covered in the TAMM, that is Movable Assets, Immovable Assets, Life Assets and Intellectual Properties.

The public sector structural documentation of AM is divided into four (4) levels: policy, manual, procedure, and supported document for TAMM. It consists of strategic, tactical, and operational aspects to be managed systematically by users and officers. The structure of AM documentation is shown in Figure 1.

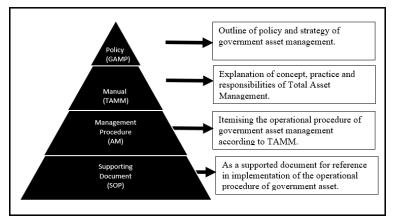


Figure 1: Malaysian Government's Asset Management Structural Document (Source: TAMM 2021)

The AM practice should focus on the optimal use of cost-effective assets and include user-friendly, environmental-friendly, energy efficiency, security, and privacy controls (Jephson, 2018). This is clearly stated in the TAMM. The important element recognized in the TAMM is the life cycle of an asset. Thus, the general model of TAMM is based on the life cycle of an asset and it requires an asset to be managed from the planning stage until it is disposed of. This process is vital to ensure that products and services are delivered effectively without any interruption. The general model of TAMM is shown in Figure 2.

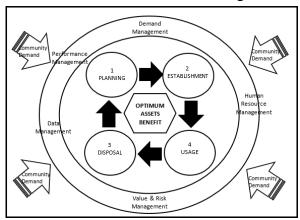


Figure 2: Total Asset Management General Model (Source: TAMM 2021)

Each phase in the life cycle of an asset involves decision-making which is both challenging and has long-term effects. Therefore, the elements in each phase need detailed consideration for better usage and effectiveness. The activities involved in each phase are

Vol. 12, No. 12, 2022, E-ISSN: 2222-6990 © 2022 HRMARS

Table 1
Description of Phases of an Asset's Life Cycle

Phase	Description
Asset planning	The activity to plan the detailed needs for new
	assets is known, identified, designed, and
	prepared.
Asset establishment	The activity to create and own the asset through
	the ownership procedures is conducted.
Asset usage	The activity to use, operate, and maintain the asset
	is carried out.
Asset disposition	The activity to dispose the asset when its services
	are no longer required, or lost, or not economically
	used is carried out.

(Source: TAMM 2021)

Asset Management Performance

Performance measurement is a construct used by an organisation to measure the result of activities conducted. Performance can be regarded as a set of processes that enable interested parties to take effective action to develop a productive and efficient organisation in the future (Lebas & Euske, 2007). In the public sector, the purpose of measuring performance is to communicate better strategies, balance financial and non-financial performance measurements, accommodate an understanding of management's vision from top to bottom, achieve satisfaction, and assess the rational ability of the organisation's individuals (Goh, 2012). Management is obsessed with performance, trying to measure every aspect of operation (Neely, 2007), resulting in an unnecessary focus on irrelevant processes.

AM is becoming more challenging than in the previous decade because AM has evolved from a reactive approach to a proactive and comprehensive approach (IBM, 2007; Blance 2019). In a competitive landscape, it is important to manage assets effectively and efficiently to achieve optimal returns and gain competitive advantages. It cannot be done by only considering the assets' entire lifetime and all associated costs and maintenance (Campbell & Reyes, 2014) instead, AM should be viewed from a different aspect that benefits stakeholders.

In the Public sector, AM's performance from AM activities measured based on the concept of 3Es that is measuring its economic, efficiency, and effectiveness (Buang, 2011). Efficiency and effectiveness analysis is based on the relationships between the inputs, outputs, and outcomes. Mihaiu et al. (2010) stated that effectiveness is an indicator based on the outcomes' ratio achieved to the one configured. At the same time, efficiency is a measure obtained by disclosing the results of the efforts made. Public spending efficiency indicates a relationship between the economic and social consequences of introducing any activities and the effort made to fund them.

Factors Affecting Asset Management Performance

Over the previous few decades, demand for effective AM practice has steadily increased (Wijnia & Croon, 2015) and AM activities are now treated as core functions of organisational strategies (Pais et al., 2020). Since effective AM plays a major role in delivering better service, it should focus on performance and outcomes. Therefore, a collaborative and coordinated approach across the organisation's change processes is required for its successful

implementation (Male et al., 2006).

The effectiveness of AM is influenced by several factors such as policy, people and technology to ensure strategies are executed accordingly. The achievement of good AM depends on the availability of appropriate, quality, and timely information on assets (Hastings, 2015), accounting practice (Abdullah & Muhammad, 2020; Ali et al., 2019), training policy (Abdullah & Muhammad, 2020; Mazlan & Mohammed, 2008; Backer & Yusoff, 2015), information system (Arlini et al., 2014; Ekayanti et al., 2018; Khresat, 2015; Sanjaya & Utama, 2020) and asset misappropriation (Effiok et al., 2012; Majid et al., 2014; Norziaton et al., 2018).

The information systems, accounting practice, training policy and asset misappropriation play important roles to ensure that organisations have good AM, that is creates the best possible use of the resource and customer support and efficiency, aligned with the balance of financial goals (Too, 2010). To effectively manage AM, an interdisciplinary approach should be used in ensuring that the assets are managed systematically, thereby reducing error and delivering the intended results promptly.

The institutional theory can be used in examining the elements that influenced AM's performance because it explains the relationship between the organisation's environment and its reactions. Specifically, the theory asserts that both internal and exterior institutional elements contribute to the understanding of an organisation's phenomena or behaviour (Hussain & Hoque, 2002). Additionally, the theory discusses the internal and external environments such as accounting practice, training policy, information system, and asset misappropriation, its features, and impact on AM performance.

Research Design

This study was conducted using semi-structured interviews in collecting the data, participated by the officers who have sufficient knowledge and experience in AM. An interview approach elicits information about respondents' experiences, opinions, and beliefs to obtain additional explanations that were unable to obtain through the quantitative method (Percy et al., 2015). The interview session conducted to access the perception of officer that have experience involving in making policy related to AM and auditing the AM in the government agencies to answered the research questions.

The interview session can be anticipated that data captured during the interviews could shed further understanding on the current situation AM in the government agencies and the factor affecting AM's performance. A semi-structured interview was used since it is more adaptable in modifying the order of questions and allowing for a more thorough follow-up of the respondents' responses (Fylan, 2005). This interview method is moderate because it allows for new questions to be asked during the interview based on the respondent's responses.

Before the interview session, an interview protocol comprised a set of rules and guidelines; while questions are developed following the research objectives (Castillo-Montoya, 2016). Having an interview guide prepared allows the researcher to remain in control of the interview session. The interview question has been divided into two themes (i) current asset management practices (3 main questions); and (ii) factors affecting asset management performance (4 main questions).

A formal letter requesting for an interview session, along with the questions, was sent to the respective government department responsible for making policy for AM procedures and examining AM's performance in government agencies. After getting approval, the

respondent is contacted to organise the interview session information, including the date and time. Since the government has imposed the Movement Control Order (MCO) during the preliminary data collection, the interview session is conducted through virtual interviewing using Google Meet.

The interviews have been conducted between June and July 2021 based on interview protocol employing probing tactics to collect rich information, recording the conversations using a recorder, and taking notes on ideas provided by the respondents. The researcher briefly explained the objectives of the interview, the process of interviewing and asking permission from the respondents to record the conversation of the interview session. Each interview session has taken less than one hour to complete. Before the interview session ended, the researcher recounted the session and solicited the respondents' questions, recommendations, or views. The sufficient of interview respondents is five to fifty persons (Dworkin, 2012) however, Creswell (2018) argued that the interview samples are sufficient once the categories or themes are saturated, that is new ideas are no longer produced while collecting new data. This study has interviewed five officers from the Ministry A and Department B (a pseudonym) as it has reached a saturated level. The study adopted criterion sample from Tremblay (1957) that in terms of respondents' role, the role, knowledge, willingness, Communicability, and be Impartiality, thus, chosen of officer from this two organisastion has meet the said criteria where Ministry A is a policymaker for the AM procedure, and the Department B is responsible for auditing and examining AM performance.

The information from the interview session is recorded by preparing verbatim transcription, encoding, and thematic organisation of the interview data following the research objectives (Bengtsson, 2016). The transcript then, analysed using ATLAS.ti software by coding of sample text, the verification of coding consistency, and the coding modification have been continually carried out until a sufficient level of coding consistency is obtained (Weber, 1990). Finally, a matrix framework has been developed to compare the content responses across the five respondents.

Analysis and Discussion

The result of the interview was discussed to answer research questions based on the themes (i) perception of the current asset management practice by government agencies and its performance; and (ii) perceptions of the factors affecting asset management performance in government agencies.

Perception of the Current Asset Management Practice by Government Agencies and its Performance

AM is crucial for a government agency to ensure that sufficient resources are available when needed. To ensure effective AM, agencies must adhere to the AM processes outlined in the Treasury Asset Management circular (AM 1, AM 2, and AM 3). However, as reported in General-Auditors reports (2014 to 2018), the marks of AM's performance for five years except in 2016 are the lowest compared to other components in the financial management accountability index of government agencies. The issues of AM in government agencies are repeated and continued to be highlighted in General-Auditors reports (2020 and 2021) because there are government agencies that did not comply with the respective procedure.

Three (3) respondents, namely (A1), (A3) and (A4) agreed that the government agencies' existing AM's practices are fair. While, two (2) respondents, (A2) and (A5) stated that most agencies had a good AM's practice; however, there are still some government

Vol. 12, No. 12, 2022, E-ISSN: 2222-6990 © 2022 HRMARS

agencies that have problems managing their assets efficiently. This perception is consistent with studies by Ismail et al (2019) as well as Backer and Yusoff (2015) that stated some government agencies in Malaysia do not manage their assets well and require serious attention to ensure that their resources are managed efficiently. All respondents agreed that current AM rules and processes are appropriate and that any changes to the guidelines have been updated and conveyed to all ministries. The ministry is then responsible for advising the agencies it oversees of any changes to policies or procedures. Respondent (A4) stated that:

"The rules issued by the MOF, for example, the asset management procedures, have been completed and outline each process in managing assets based on the life cycle, from receipt to registration and disposal. However, it is undeniable that there are also agencies that violate the guidelines."

Regularly updating and communicating on AM procedures is important to ensure agencies have an instrument to monitor and to make decision in managing assets that contribute agencies' compliance with the regulation (Lima & Costa, 2019). The issue of non-compliance with regulations has affected AM's performance in an agency's financial management. According to Respondent (A2):

"Most of the ministry's financial performance dropped due to poor asset management and non-compliance with set rules. Low scores in the Accountability Index relating to asset management elements have an impact on financial management's overall performance."

Noting a similar viewpoint, Respondent (A5) states that while the government has a comprehensive AM policy, institutional factors influence AM compliance.

Regarding the value for money principles, all respondents agreed that most agencies plan and acquire assets following the required asset specifications. The assets purchased are utilised. However, in certain instances, the assets purchased are underutilised because of several reasons including the officer who applied to purchase the assets has departed from the agency. Furthermore, as Respondent (A2) said:

"In terms of value for money, the asset acquisition process is conducted according to defined procedures, including considering a reasonable price beneficial to the government. In terms of utilisation, it is a principle that all assets acquired are utilised optimally. However, there are situations where the assets purchased are not used or are used inefficiently because the official who requested the acquisition is no longer with the agency. New officers are inexperienced with those assets or have alternative means or equipment are used to complete the work."

AM is part of financial management (Bernard, 1994). Inefficient AM can affect the condition of the asset and its value. This influences the financial position of an agency. Therefore, the emphasis on raising AM awareness, improving AM systems, and building a systematic AM system is able to achieve more optimal asset distribution as well as improve utilization efficiency (Wang, 2015).

Vol. 12, No. 12, 2022, E-ISSN: 2222-6990 © 2022 HRMARS

Respondents also collectively agreed that AM practices have been improved. The government recognises the critical nature of competent AM in the public sector, which aids in service delivery. Thus, the government establishes AM procedures to ensure the effective management of assets. As a result, the agency's guidelines for AM are more explicit than they were previously.

While AM in government agencies has improved, all respondents admitted that there are still issues with non-compliance in government agencies, as highlighted in the audit report. The issues raised are also repeated typically within the same ministry's agencies. As explained by Respondent (A4), among the frequently highlighted issues are agencies' failure to follow prescribed disposal procedures and a lack of internal controls. In another excerpt, Respondent (A3) highlighted that:

"The delay in disposing of assets has resulted in other problems such as insufficient space, internal components of assets such as computers and air conditioning for disposition being lost or stolen...."

According to Hazanah et al (2018), asset disposition is critical to ensuring that the organisation does not retain assets that are no longer useful or necessary. Additionally, it can save on storage and office space. Disposal may also be a form of funds for the government. Generally, an asset can be regarded as disposable if it is uneconomical to repair, obsolete, damaged and unusable, as well as has beyond its useful life. Besides, the asset's capacity has degraded, or there are no spare components available on the market.

Nevertheless, Respondent (A2) stated that the issue of asset loss appears to have decreased. For example, it is more difficult for agencies to detect asset loss prior to the existence of procedures related to AM, such as the Government Asset Management Policy (GAMP), Total Asset Management Manual (TAMM), and Asset Management Procedures. Before the implementation of asset-related policies, assets were insufficiently recorded and identified, making it easier to bring out government assets from office and eventually vanish undetected.

GAMP and TAMM assisted the government to improve its AM. According to Lima et al. (2019), the AM guidelines assist agencies in achieving a variety of benefits associated with structuring and improving the AM process, including increased asset efficiency and effectiveness.

Perceptions on the Factors Affecting Asset Management Performance in Government Agencies

Based on the interview, all five (5) respondents agreed that accounting practices, training policy, information systems, and asset misappropriation are the most important aspects influencing AM performance in government organisations. For example, Respondents (A2) and (A3) believed that AM skills and knowledge are critical to ensuring that every employee understands their duties, particularly to the asset officer.

The government has mandated that each officer get at least seven training days per year to maintain their competencies. A robust training program is critical for officers, particularly asset officers, to acquire the necessary knowledge and skills for AM knowledge and skills are necessary for AM because it involves various disciplines and frequently encounter complicated uncertainties (Schuman & Brent, 2005) including technical and financial. Thus, training can help employees increase their knowledge and thus promote

better AM practice (Norhidayah et al., 2015).

Even though training can benefit the agencies in improved AM , however, in certain situations some officers will be unable to attend training owing to time constraints or other reasons. According to Respondents (A2) and (A1), there are government agencies that have appointed asset officers that have other essential duties. Due to an encumbered workload, officers are unable to attend AM-related training. As a result, the officer lacked sufficient knowledge of the AM procedure and was unaware of the process or any changes to the current procedure. Even though training gives a positive impact on performance (Daniel, 2018), the previous study has also found that training does not directly influence organisational performance (Gelade & Ivery, 2003; Martinez-Ferrero & Garcia-Sanchez, 2017).

Apart from training, Respondents (A1), (A2), (A4), and (A5) stated that poor AM performance has also resulted from asset misappropriation. This is because the assets allotted for service delivery are insufficient or unable to operate optimally due to asset misuse for non-official activities. For example, a typical case involving asset misappropriation is the misuse of an official vehicle for personal activities, requiring the vehicle to be serviced more frequently than it should if the asset is utilised exclusively for official purposes.

Thus, it causes losses to the government in terms of monetary and unoptimized equipment used for official purposes. This also affects the actual performance of the asset itself as it needs to be maintained or repaired more often due to breakdown for non-official use. Likewise, Respondent (A5) has illustrated this point:

"Asset misappropriation has a detrimental effect on more than just asset management performance. Although the value is minimal, if it becomes a habit, it becomes accepted as normal, and the misuse of organisational resources for personal gain will grow widespread. Occasionally, management is aware of the abuse but chooses to disregard it or not report it for fear of severely impacting their image and performance if their higher management, such as ministry levels or the public know."

Asset misappropriation has diverted finite resources and compromised the government's ability to deliver services and achieve intended outcomes (International Public Sector Fraud Forum, 2020). In this context, AM cannot be carried out effectively due to resource constrain. Insufficient money causes maintenance of the assets disrupted, and obsolete assets cannot be replaced; thus, the public cannot get quality services as needed.

According to Majid et al., (2016), the reduction of available resources would negatively affect the organisation's ability to achieve its goals set out in its vision, mission, and policy statements. It was supported by Chapple et al (2005), who found the misappropriation of assets carried out in the organisation to cause poor organisational performance. However, organisational performance can be enhanced if mechanisms to reduce fraud incidence are put in place (Mohammed & Knapkova, 2016).

Malaysia's government has been implementing accrual accounting since 2018. According to Respondents (A1), (A2), and (A3), agencies are more vigilant and cautious when documenting asset-related information since the adoption of accrual accounting because each asset is capitalised and will be depreciated. Each ministry's financial statements are reconciled to the federal government's financial statements. Compared to the prior cash basis assets are considered an expenditure in the year they were bought and were not capitalised.

Vol. 12, No. 12, 2022, E-ISSN: 2222-6990 © 2022 HRMARS

Thus, accrual accounting provides a more precise value because the expense of an asset is capitalised and recognised through depreciation based on the asset's kind and useful life.

Accounting reforms in the public sector substantially impact AM (Flynn et al., 2016). The accounting principles generally determine how assets are accounted for and how asset values are measured and recognized over the asset life cycle stated in the financial statement. Publicly accessible accounting information on the government's financial statements is a valuable source of information in assessing the level and the type of assets that was invested using public money (Ehalaiye et al., 2020).

As highlighted by Respondent (A2), accrual accounting requires capitalisation of assets; the cost of acquisition does not treated as expenses in the year it occurred. As a result, the agency is more thorough in recording asset information because it will be retained for the duration of the asset's life. Additionally, the value of assets will be depreciated based on the types of assets that affect the government's financial statements.

This is supported by Respondent (A5) interviewed in this current study claiming that

"Before the implementation of accrual accounting, the value of assets was not shown in financial statements, posing a risk of authenticating the true worth of government assets. Accrual accounting requires the value of assets to be reported in government financial statements, encouraging government agencies to take a more proactive approach to asset identification and management."

Accrual accounting strengthens the stewardship of assets and liabilities (Agburuga, 2018; Jallad & Darras, 2015), and allows efficient control of government resources to enhance productivity and cost-effectiveness since all the transactions are registered. Thus, it helps government agencies resolve the issues of lack of information on assets movement without reporting the financial implications in the financial statements.

Apart from accounting practice, training policy, and asset misappropriation, assetrelated records must also be managed appropriately. To ensure accurate asset information, the government has used information systems for registering and recording government assets. Respondents (A1) and (A2) stressed that the usage of this AM system has altered the AM landscape, as it is now easier to record and maintain records than manually. The assets can also be monitored in terms of their location, maintenance information, and position, as all information is accessible to authorized staff at any time.

Technology has also profoundly affected AM, especially in the life cycle process (Amadi-Echendu, 2004). According to Roberts et al (2018), while asset data and information continue to grow throughout the life cycle, new technology such as information modelling can help organisations align their strategic and tactical expertise with the ability required for data management. The introduction of information system has led to better AM performance because adequate information on the asset enables the organisation to improve the effectiveness of AM (Sanjaya & Utama, 2020; Arlini et al., 2014; Ekayanti et al., 2018).

Other than the four factors mentioned earlier, Respondents (A1), (A2), and (A5) felt that there are additional aspects that influence an agency's AM performance. It encompasses financial resources, human resources, senior management support, and the agency's culture. According to Respondent (A2), small-sized agencies lack a dedicated AM unit, and the asset officer typically performs other essential duties. In contrast, larger agencies have an AM unit dedicated to AM and asset officers that focus on AM. As a result, there are certain constraints

Vol. 12, No. 12, 2022, E-ISSN: 2222-6990 © 2022 HRMARS

or limitations inherent in managing assets in small-sized government agencies.

Although Respondents (A1), (A2), and (A5) believed that there are additional factors that contribute to an agency's AM performance, as do Respondents (A3) and (A4), they agreed that the four factors mentioned above, accounting practices, training policies, asset misappropriation, and information systems, are the primary factors that contribute to an agency's AM performance.

Conclusion

The current study investigates the current AM practice and the factors affecting AM performance in government agencies. There are two major findings in this study. Firstly, the government agencies' AM practice and performance were generally satisfactory, which is fair and in good condition. All respondents agreed that the government's AM policies and processes were adequate and updated. However, several government agencies still do not comply with AM procedures. This situation has resulted in affecting the performance of AM in those agencies. Therefore, such government agencies should take significant efforts to improve AM compliance to enhance performance and obtain greater value for money.

Secondly, institutional factors such as accounting practice, training policy, asset misappropriation, and information systems were significant contributors to the levels of AM performance. Furthermore, some respondents believed that human resources and financial resources contribute to AM performance in a government agency. Thus, the government should ensure their agencies implement good appropriate accounting practices, prevent asset misappropriation practices, and strengthen training policies and their assets information system to reduce auditors' repeated issues related to AM and enhance public money management credibility. The outcomes of this study have several implications to the body of knowledge, practitioner (government agencies) and the Public. Firstly, there are many existing works of literature on AM conducted in developed countries. Still, little study has been undertaken in a developing country such as Malaysia, particularly on factors affecting AM performance. Thus, this study will add to the literature on AM concerning factors affecting AM performance. Secondly, government agencies could establish a sound strategy to resolve issues related to the factors affecting AM performance as highlighted in this study's findings. As a result, the degree of effectiveness of implementing AM policies within the agencies will increase, substantially decreasing audit inquiries on AM. Finally, the Public will enjoy the quality of service as well as facilities provided by the government.

This study is not without limitations. The study only investigated the perception of officers in the government department responsible for making policy for management procedures and examining AM performance in government agencies. Further study should explore and examine the perception of the officer who is managing assets in government agencies. In addition, this study has employed qualitative methods by using semi-structured interviews of five officers. In the future, a quantitative method such as survey should be used to enable large sample size and generalise the result.

References

Abdullah, F. A., & Muhammad, K. (2020). Factors influencing valuation accuracy of PPE in public sector FS: Accountants' perspective. *Journal of Critical Reviews*, 7(19), 459–471.

Agburuga, U. T. (2018). The effect of public sector accrual accounting reform on fiscal performance. *Research Journal of Finance and Accounting*, *9*(18), 50–57.

Amadi-Echendu, J. (2004). Managing physical assets is a paradigm shift from maintenance.

- *Proceedings of Engineering Management Conference, IEEE International, 3,* 1156–1160. https://doi.org/10.1109/iemc.2004.1408874
- Amadi-Echendu, J., Willett, R., Brown, K., & Yang, B. (2010). What is engineering asset management? In *Definitions, Concepts and Scope of Engineering Asset Management* (pp. 3–16). Springer London.
- Arlini, M., & Darwanis, S. A. (2014). Pengaruh Kompetensi Sumber Daya Manusia, Sistem Informasi, Regulasi, dan Kompensasi Terhadap Manajemen Aset (Studi Pada Satuan Kerja Badan Kependudukan dan Keluarga Berencana Nasional di Indonesia). *Jurnal Magister Akuntansi Pascasarjana Universitas Syiah Kuala*.
- Auditor General's Report Federal. (2015). https://www.audit.gov.my/index.php/en/auditor/archives/federal-archives/613-auditor-general-s-report-federal-2015
- Auditor General's Report Federal. (2016). https://www.audit.gov.my/index.php/en/auditor/archives/federal-archives/665-auditor-general-s-report-federal-2016
- Auditor General's Report Federal. (2017). https://www.audit.gov.my/index.php/en/auditor/archives/federal-archives/694-auditor-general-s-report-federal-2017
- Auditor General's Report Federal. (2018). https://www.audit.gov.my/index.php/en/auditor/archives/federal-archives/802-auditor-general-s-report-federal-2018
- Auditor General's Report Federal. (2019). https://www.audit.gov.my/index.php/en/auditor/archives/federal-archives/859-auditor-general-s-report-federal-2019
- Azmi, M., & Ismail, S. (2022). Weaknesses of Malaysian public procurement: a review of auditor general's reports. *Journal of Financial Reporting and Accounting*. https://doi.org/10.1108/JFRA-05-2021-0132
- Backer, M. A. B. M. A., & Yusoff, W. Z. W (2015). A review of asset management practice in Malaysian Local Governments. Proceedings of the 25th International Business Information Management Association Conference Innovation Vision 2020: From Regional Development Sustainability to Global Economic Growth, IBIMA 2015, January, 3577–3582.
- Bengtsson, M. (2016). How to plan and perform a qualitative study using content analysis. *NursingPlus Open*, *2*, 8–14. https://doi.org/10.1016/j.npls.2016.01.001
- Bernard Williams Associates. (1994). *Facilities Economics: Incorporating'premises Audits'*. Building Economics Bureau.
- Blache, K. M. (2019). Asset Management: Evolution to revolution. Efficient Plant Magazine. https://www.efficientplantmag.com/2019/04/asset-management-evolution-to-revolution
- Buang, A. (2011). "Public asset management in Malaysia An audit perspective." At the 1st World Congress and Exhibition Infrastructure Asset Management PWTC Kuala Lumpur, February, 1–7.
- Campbell, J. D., & Reyes, J. V. (2014). Uptime: Strategies for Excellence in Maintenance Management. CRC Press
- Castillo-Montoya, M. (2016). Preparing for interview research: The interview protocol refinement framework. *Qualitative Report*, *21*(5), 811–831. https://doi.org/10.46743/2160-3715/2016.2337
- Chapple, L., Ferguson, C., & Kang, D. (2005). Corporate governance and misappropriation. Journal of Forensic & Investigative Accounting, 1(2), 1–26.
- Creswell, J. D. (2018). Research design:qualitative, quantitative, and mixed methods approaches. *SAGE Publications*. https://doi.org/10.1891/9780826146373.0007
- Daniel, C. O. (2018). Effects of training on organizational performance. Asian Journal of

- Business and Management, 6(5), 58-67. https://doi.org/10.24203/ajbm.v6i5.5489
- Dworkin, S. L. (2012). Sample size policy for qualitative studies using in-depth interviews. Archives of Sexual Behavior, 41, 1319–1320.
 - https://doi.org/https://doi.org/10.1007/s10508-012-0016-6
- Effiok, S. O., Ojong, C. M., & Usang, O. U. E. (2012). The omplication of Occupational fraud and financial abuse on the performance of companies in Nigeria. *Journal of Contemporary Research in Business*, *4*(7), 516–533.
- Ehalaiye, D., Redmayne, N. B., & Laswad, F. (2020). Does accounting information contribute to a better understanding of public assets management? The case of local government infrastructural assets. *Public Money and Management*, *41*(2), 88–98. https://doi.org/10.1080/09540962.2020.1719669
- Ekayanti, S. M., Rifa, A., & Irwan, M. (2018). Determinants effectiveness fixed asset management of district government on the island of Lombok. *International Journal of Business Management and Economics Research (IJBMER)*, 9(1), 1219–1229.
- Flynn, S., Moretti, D., & Cavanagh, J. (2016). Implementing accrual accounting in the public sector. In *International Monetary Fund* (Issue 06, p. 1). https://doi.org/10.5089/9781513589466.005
- Fylan, F. (2005). Semi-structured interviewing. In *A handbook of research methods for clinical* and health psychology (pp. 65–78).
- FHWA. (2007). Asset management overview. http://www.fhwa.dot.gov/asset/if08008/assetmgmt_overview.pdf
- GAMP. (2009). General circular No 1/2009-government asset management policy, 2009.
- GAMP. (2021). Government asset management policy, Version 2.0, 2021.
- Gelade, G. A., & Ivery, M. (2003). The impact of human resource management and work climate. *Personnel Psychology*, *56*(2), 383–404.
- Goh, S. C. (2012). Making performance measurement systems more effective in public sector organizations. *Measuring Business Excellence*, *16*(1), 31–42. https://doi.org/10.1108/13683041211204653
- Hanis, M., Trigunarsyah, B., & Susilawati, C. (2010). Elements in public asset management framework for local governments in developing countries. In Proceedings of the 2010 *International Conference on Construction and Real Estate Management Volume 1 (pp. 418-423)*. China Architecture & Building Press. https://doi.org/10.13140/2.1.1056.3840
- Hanis, M. H., Trigunarsyah, B., & Susilawati, C. (2011). The application of public asset management in Indonesian local government: A case study in South Sulawesi province. *Journal of Corporate Real Estate*, *13*(1), 36–47. https://doi.org/10.1108/14630011111120332
- Hastings, N. A. J. (2015). Physical asset management: With an introduction to ISO55000. In *Springer*. https://doi.org/10.1007/978-3-319-14777-2
- Hazanah, N., Hj, B., Afiqah, N., Abdul, B., Liyana, N., & Hussin, B. (2018). Pengurusan aset: Kajian kes Kolej Universiti Islam Melaka. *Malaysian Journal of Social Science*, *3*, 10–26. http://www.kuim.edu.my/journal/index.php/JSS/article/view/460
- Hussain, M. M., & Hoque, Z. (2002). Understanding non-financial performance measurement practices in Japanese banks: A new institutional sociology perspective. *Accounting, Auditing & Accountability Journal*, *15*(2), 162–183. https://doi.org/10.1108/09513570210425583
- IBM. (2007). The evolution of asset management. [Online]. IBM Global Business Services. https://www-935.ibm.com/services/uk/igs/pdf/best_practices_in_asset_

- management final.pdf
- International Public Sector Fraud Forum. (2020). *Guide to Understanding the total impact of fraud: International public sector fraud forum* (Issue https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attach ment_data/file/866608/2377_The_Impact_of_Fraud_AW__4_.pdf
- Ismail, A. H., Saidin, N. F., Saad, S., Dangi, M. R., & Johari, R. J. (2019). Asset management practices: Malaysian government department perspective. *International Journal of Modern Trends in Business Research (IJMTBR)*, 2(8), 23–40.
- Yaakob, I. S. (2021). Speech By the Prime Minister for The Twelfth Malaysia Plan, 2021 2025:

 Keluarga Malaysia Prosperous, Inclusive, Sustainable In The Dewan Rakyat On 27

 September 2021 11:30 A.M.

 https://rmke12.epu.gov.my/storage/mediastatementandspeech/2021092820_official_

 translation_speech_of_yab_prime_minister_tabling_of_the_twelfth_malaysia_plan_20
 21 2025.pdf
- Jallad, M., & Darras, F. (2015). Accrual accounting is for the public sector too: A perspective for Arab central governments. https://www2.deloitte.com/xe/en/pages/about-deloitte/articles/no-place-like-home/accrual-accounting-is-for-the-public-sector-too.html
- Jephson, R. (2018). What is asset management & why is it important?. Chevinfleet.Com. https://www.chevinfleet.com/gb/news/what-is-asset-management/
- Khresat, A. (2015). The effect of management information system on organizational performance: Applied study on Jordanian telecommunication companies. *Information and Knowledge Management*, *5*(6), 45–51.
- Kusnawati, E. F., Amartur, K., Amartur, & Hadiwidjojom, D. (2019). Effectiveness of asset management in the public sector with the application of asset management, accountability, monitoring and evaluation, and quality of human resources (Case study in Government of Blitar City-East Java). *Journal of Applied Management (JAM)*, 17(4), 567–575. https://doi.org/DOI: http://dx.doi.org/10.21776/ub.jam. 2019. 017.04.0
- Laue, M., Brown, K., Scherrer, P., & Keast, R. (2014). Integrated strategic asset management: Frameworks and dimensions. *Third International Engineering Systems Symposium CESUN 2012, Delft University of Technology, 24*(December), 75–87. https://doi.org/10.1007/978-3-319-02493-6_6
- Lebas, M., & Euske, K. (2007). A conceptual and operational delineation of performance. In Business Performance Measurement: Theories and Practice (p. 65). https://doi.org/10.1017/CBO9780511805097.008
- Leviäkangas, P., Pargar, F., Sirvio, K., Khabbaz Beheshti, B., & Love, P. E. D. (2019). Service value and componentized accounting of infrastructure assets. *Journal of Infrastructure Systems*, 25(3), 04019025. https://doi.org/10.1061/(asce)is.1943-555x.0000497
- Lima, E. S., de Lorena, A. L. F., & Costa, A. P. C. S. (2018, October). Structuring the asset management based on ISO 55001 and ISO 31000: Where to start?. In *2018 IEEE International Conference on Systems, Man, and Cybernetics (SMC)* (pp. 3094-3099). IEEE. https://doi.org/10.1109/SMC.2018.00524
- Lima, E. S., & Costa, A. P. C. S. (2019). Improving asset management under a regulatory view. *Reliability Engineering and System Safety*, 190(April). https://doi.org/10.1016/j.ress.2019.106523
- Majid, R. A., Basri, S. A., Mohamed, N., & Ahmad, K. (2016). The commitment of local authorities in building fortress against misappropriation of assets. *Management &*

- Accounting Review (MAR), 15(2), 1-11.
- Majid, R. A., Mohamed, N., Haron, R., Omar, N. B., & Jomitin, B. (2014). Misappropriation of assets in local authorities: A challenge to good governance. *Procedia Social and Behavioral Sciences*, *164*(August), 345–350. https://doi.org/10.1016/j.sbspro.2014.11.086
- Male, S., Mitrovic, D., & Gronqvist, M. (2006). Improving property assets management in the Central Civil Government Estate. In *Leeds University*.
- Martinez-Ferrero, J., & Garcia-Sanchez, I. M. (2017). Coercive, normative and mimetic isomorphism as determinants of the voluntary assurance of sustainability reports. *International Business Review*, *26*(1), 102–118. https://doi.org/10.1016/j.ibusrev.2016.05.009
- Mastroianni, E., Lancaster, J., Korkmann, B., Opdyke, A., & Beitelmal, W. (2021). Mitigating infrastructure disaster losses through asset management practices in the Middle East and North Africa region. *International Journal of Disaster Risk Reduction*, *53*(July 2020), 102011. https://doi.org/10.1016/j.ijdrr.2020.102011
- Mazlan, R. M. R., & Mohammed, A. H. (2008). Identifying maintenance issues in Malaysia. Association Of Schools Of Construction Of Southern Africa (ASOCSA), The Third Built Environment International Conference, At The Westin Grand Cape Town Arabella Quays, Cape Town (p. 13)
- Mihaiu, D. M., Opreana, A., & Cristescu, M. P. (2010). Efficiency, effectiveness and performance of the public sector. *Romanian Journal of Economic Forecasting*, 13(4), 132–147.
- Mirhosseini, M., & Keynia, F. (2021). Asset management and maintenance programming for power distribution systems: A review. *IET Generation, Transmission and Distribution, January*, 1–11. https://doi.org/10.1049/gtd2.12177
- Mohammed, H. K., & Knapkova, A. (2016). The impact of total risk management on company's performance. *Procedia Social and Behavioral Sciences*, *220*(March), 271–277. https://doi.org/10.1016/j.sbspro.2016.05.499
- Neely, A. (2007). Measuring performance: the operations management perspective. Business performance measurement. *Unifying theory and integrating practice, 2nd Edition, Cambridge University Press, Cambridge,* 64-81. https://doi.org/10.1017/CBO9780511805097.005
- Norhidayah, M. Y., Khadijah, H., Maryanti, M. R., Zaireen, A. Z., Maslinda, A. L., Razali, M. N., ... & Adawiyah, S. R. Z. (2015). Local authorities challenges in the implementation of maintenance and operation blueprint. *Jurnal Teknologi*, *73*(5), 135–141. https://doi.org/10.11113/jt.v73.4331
- Norziaton, I.K., Ridhuan, M. M., & Adura, A. (2018). Assets misappropriation in the Malaysian public and private sectors. *International Journal of Engineering & Technology*, 7(4.38), 773-777. https://doi.org/10.14419/ijet.v7i4.38.27543
- Obicci, P. A. (2019). Physical asset management practices and quality service delivery in local governments in mid north sub-region of Uganda. *International Journal of Social Sciences and Economic Review*, 1(3), 73–79. https://doi.org/10.36923/ijsser.v1i3.39
- Pais, E., Farinha, J. T., Cardoso, A. J. M., & Raposo, H. (2020). Optimizing the life cycle of physical assets A review. *WSEAS Transactions on Systems and Control*, 15(October), 417–430. https://doi.org/10.37394/23203.2020.15.42
- Percy, W. H., Kostere, K., & Kostere, S. (2015). Generic qualitative research in psychology. *Qualitative Report*, 20(2), 76–85. https://doi.org/10.46743/2160-3715/2015.2097

- Rasolonjatovo, H., Lande, E., & Harison, V. (2015). Active asset management: feasibility in Malagasy municipalities. *Public Money and Management*, *35*(6), 417–422. https://doi.org/10.1080/09540962.2015.1083686
- Roberts, C. J., Parn, E. A., Edwards, D. J., & Aigbavboa, C. (2018). Digitalising asset management: concomitant benefits and persistent challenges. *International Journal of Building Pathology and Adaptation*, *36*(2), 152–173. https://doi.org/10.1108/IJBPA-09-2017-0036
- Sanjaya, K. E., & Utama, M. S. (2020). Asset management performance in the government of Jembrana Bali Regency. *International Research Journal of Management, IT & Social Sciences*, 7(4), 24–35.
- Sara, I. M., Saputra, K. A. K., & Utama, I. W. K. J. (2021). The effects of strategic planning, human resource and asset management on economic productivity: A case study in Indonesia. *Journal of Asian Finance, Economics and Business*, 8(4), 381–389. https://doi.org/10.13106/jafeb.2021.vol8.no4.0381
- Schraven, D., Hartmann, A., & Dewulf, G. (2011). Effectiveness of infrastructure asset management: Challenges for public agencies. *Built Environment Project and Asset Management*, 1(1), 61–74. https://doi.org/10.1108/20441241111143786
- Schuman, C. A., & Brent, A. C. (2005). Asset life cycle management: Towards improving physical asset performance in the process industry. *International Journal of Operations and Production Management*, *25*(6), 566–579. https://doi.org/10.1108/01443570510599728
- Ali, S. S., Sheung, C. S. C., & Razali, M. W. (2019). Case study in a Malaysian public agency on an asset management-moving towards the accrual basis of accounting. *Accounting and Finance Research*, 8(3), 149. https://doi.org/10.5430/afr.v8n3p149
- TAMM. (2009). Total Asset Management Manual, 2009.
- TAMM. (2021). General Circular No 1/2021. Total Asset Management Manual, Version 2.0, 2009
- Tirayoh, V., Latjandu, L., Sabijono, H., & Mintardjo, C. (2021). Public Sector Asset Management in the Government of Indonesia: A Case Study in Minahasa Regency. *Jurnal Bina Praja, Journal of Home Affairs Governance, 13(2), 195-205.* https://doi.org/10.21787/jbp.13.2021.195-205
- Too, E. G. (2010). A framework for strategic infrastructure asset management. In *Definitions, concepts and scope of engineering asset management* (pp. 31-62). Springer, London. https://doi.org/10.1007/978-1-84996-178-3_3
- Tremblay, M. A. (1957). The key informant technique: A nonethnographic application. American Anthropologist, 59(4), 688-701
- Uklala, A. P., Bessong, P. K., Oti, P. A., Tapang, A. T., Okpara, M., & Inah, E. U. (2021). Empirical analysis of public accounts committee and accountability of funds in Nigeria. *Academy of Accounting and Financial Studies Journal*, 25(4), 1–12.
- Wang, J. (2015). Approaches of improving university assets management efficiency. International Journal of Higher Education, 4(4), 235–238. https://doi.org/10.5430/ijhe.v4n4p235
- Weber, R. P. (1990). Basic Content Analysis. In *Sage Publications,Ins*. https://doi.org/10.2307/2289192
- Wijnia, Y., & Croon, J. de. (2015). The Asset Management Process Reference Model for Infrastructures. In *9th WCEAM Research Papers* (pp. 447-457). Springer, Cham. https://doi.org/10.1007/978-3-319-15536-4

INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN BUSINESS AND SOCIAL SCIENCES vol. 12, No. 12, 2022, E-ISSN: 2222-6990 © 2022 HRMARS

Yusof, Y. (2013). The effectiveness of public sector asset management in Malaysia (Doctoral dissertation, Queensland University of Technology).