

# Challenges in accounting for heritage assets and the way forward: Towards implementing accrual accounting in Malaysia

Norida Basnan<sup>1</sup>, Mohd Fairuz Md. Salleh<sup>1</sup>, Azlina Ahmad<sup>1</sup>, Azizah Mohd Harun<sup>1</sup>, Ismail Upawi<sup>1</sup>

<sup>1</sup>School of Accounting, Faculty of Economics and Management, Universiti Kebangsaan Malaysia, 43600 Bangi Selangor, Malaysia

Correspondence: Norida Basnan (email: norida@ukm.edu.my)

## Abstract

Improved reporting is a vital instrument to better discharge a government's accountability obligations, a trait crucial to a government's integrity. The Federal Government of Malaysia's announcement to shift from modified cash to accrual-based accounting can be seen as an effort to improve governmental reporting. This study examines the challenges facing the government in accounting for heritage assets with its shift to accrual accounting. Primary data were collected via interviews with representatives of one ministry and two relevant government departments. The study found that the major challenges in accounting for heritage assets were related to recognition and measurement as well as in the aspects of asset registry and staff competency. The findings and recommendations may assist the government in identifying specific measures to ensure the successful implementation of accrual-based accounting.

Keywords: accounting for heritage assets, accounting for specialized assets, accrual accounting, governmental accounting, heritage assets, public sector accounting

## Introduction

The transition from modified cash to accrual-based accounting under the Economic Transformation Programme of the Federal Government of Malaysia, which was proposed to be implemented in 2016, is seen as a move towards better government financial reporting. More importantly, the improved reporting is regarded as a medium to better discharge the government's accountability obligations to its stakeholders. Based on the experiences of countries that have implemented accrual-based accounting, the shift brings forth various challenges, among which are challenges related to accounting for specialised public assets such as heritage assets.

Debates are ongoing with regards to the accounting for heritage assets (Aversano & Christiaens, 2014; Biondi & Lapsley, 2014; Christiaens et al., 2012; Wynne, 2007). The issue at the heart of the debate is whether items with heritage significance should be recognized as assets (Barton, 2000; Biondi & Lapsley, 2014; Mautz, 1981, 1988; Pallot, 1990; Stanton & Stanton, 1997). However, albeit problems of measurement and valuation, several researchers are in favour of recognising heritage items as assets (Hone, 1997; Micallef & Pierson, 1997). According to Rowles et al. (1998) regardless of the problems of measurement and valuation, all government assets including heritage assets should be reported in the statement of financial position as the information could be useful for decision making and performance measurement (Barton, 2005; Hone, 1997; Smith, 2007). Smith (2007) argues that the fact that organisations are required to report on the management of and care for specific public assets such as heritage assets (Barton, 2000; Hooper et al., 2005) as there are limits to the application of the techniques of conventional accrual accounting (Carnegie & Colonizer, 1996; Wild, 2013).

In countries that have implemented accrual-based accounting, the accounting for heritage assets is dependent on the defined characteristics of the assets and the consideration of the countries involved. The challenges related to accounting for heritage assets are also likely to be faced by the Government of Malaysia when transitioning to accrual accounting. Proper accounting of assets with specialised and unique characteristics such as heritage assets may provide better information about the management of public spending, and help improve asset management including asset maintenance and replacement or investment (Grusinic et al., 2009; PwC, 2013) and subsequently may provide a clearer picture of the financial position of the government.

This paper aims at examining the challenges facing the Federal Government of Malaysia in accounting for specialised public assets particularly heritage assets with the implementation of accrual accounting. The findings of this study and the recommendations put forward can be used as guidelines for the Accountant General's Department in particular and the Malaysian government as a whole, in the development of accounting policies, accounting standards and detailed guidelines for accounting for specialised public assets in general and heritage assets in particular.

## Insights from literature

The Heritage Building Conservation Guideline of the Department of National Heritage defines heritage as something of value that is inherited from one generation to the new generation. As an important treasure to the nation, heritage has an interest in education and economic growth (Ab Samad et al., 2012; Ah Choy et al., 2014). According to the International Public Sector Accounting Standard (IPSAS) 17, heritage refers to an asset that has cultural, environmental and historical interests, for example historical building, monument, archeological site and artifact (IFAC-IPSASB, 2010).

Previous researchers have argued that heritage items do not match the definition of assets in accrual accounting (Barton, 2000; 1988; Carnegie & Wolnizer, 1995, 1999; Christiaens et al., 2012; Mautz, 1981). Mautz (1981) reasoned that the services provided by heritage items are freely offered to the public or at a minimum fee but their maintenance costs are usually above the revenues that flow into the entity that maintains them. For this reason, Mautz (1988) considered heritage items as liabilities instead of assets. According to Mautz (1988), the heritage items may become assets if their sale was decided. In a similar vein, Carnegie and Wolnizer (1995, 1999) iterated that heritage items should be regarded as liabilities or facilities as they do not satisfy the criteria for recognition as an asset.

Christiaens et al. (2012) suggested that capital assets with attributes similar to those of public goods, such as heritage assets, should not be capitalised and included in the statement of financial position. Because of their public goods' attributes, Pallot (1990) considered heritage assets along with infrastructure assets as community assets which require a specific accounting treatment. The concept of community asset is supported by Stanton and Stanton (1997) and Nasi et al. (2001) who argued that because of the difficulties in the valuation of heritage items and restrictions as to their sale, an off balance sheet reporting is more appropriate. According to Barton (2000), as the managing entity usually does not have full control of the assets, such as with regards to their use and disposal, hence heritage items should be regarded as 'goods in trust'.

Another recognition issue concerns heritage items with multiple uses, such as historical buildings used as government offices. The question arises as to whether the entire historical building should be recognized as a heritage asset or just those sections that are not used as government offices, while the sections used as government offices are recognized as a regular asset under the category of property, plant and equipment (Blondal, 2003). Researchers supporting recognition of heritage items as assets argued that the recognition of heritage assets could provide the government with information about the nature and potential of the assets that is useful for decision making and performance measurement (Barton, 2005; Hone, 1997; Micallef & Pierson, 1997).

Given the specialised and unique nature of heritage assets, the issue of valuation is also fuelling the debate. According to Barton (2000), the inclusion of heritage assets in the financial statement requires

determination of their book values that reflect their artistic, historical and cultural characteristics. This is problematic as artistic, historical and cultural values are difficult to quantify in monetary terms. In addition, the very long asset life of such assets which reaches hundreds of years, the cost of acquisition of the asset which is usually unknown, and the unavailability of market value where the sale of heritage asset is usually protected by law and the replacement cannot be determined further complicate the process of determining their value (Blondal, 2003; Khan & Mayes, 2009; Micallef & Pierson, 1997). According to Aversano and Ferrone (2012), it is difficult to obtain relevant values that reflect the potential services that the heritage assets encompass as the sale of heritage assets on the open market is almost impossible, as they are often held for social purposes. Furthermore, fair valuation of heritage assets and other valuation methods such as replacement cost or reproduction cost are not only difficult to carry out but also costly as the methods assume the existence of a ready market (Aversano & Ferrone, 2012; Porter, 2004) and as such, they are not generally reliable measures (Aversano & Ferrone, 2012). Similarly, it is almost impossible to use the historic cost method as their historical cost is unknown because they are usually acquired by way of donations (Gomez & Casal, 2008).

Barton (2000) argued that commercial valuation may not be a proper approach to value heritage assets; instead the social benefits from the use of the assets should be taken into consideration. In addition, the capacity of heritage assets to contribute to the objectives of the controlling entity should also be considered in valuing those assets (Stanton & Stanton, 1997). Given the subjectivity involved in their valuation, reaching an agreement as to the cultural value of heritage assets and the translation of the intrinsic value into financial terms is an endeavour that seldom results in agreement. It is more appropriate to express the value of heritage assets in non-financial terms because 'accounting for stewardship is not always accounting for financial stewardship' (Barker, 2006, p.2).

On the issue of valuation, consideration of depreciation of heritage assets has also been raised by previous researchers (Khan & Mayes, 2009; Pallot, 1990). Pallot (1990) argues that heritage assets should not be subjected to depreciation due to the difficulties in determining their cost as they are irreplaceable, unique in nature, and enjoy a longer indefinite useful life. While there are difficulties to place a meaningful value on heritage assets and while the valuing process of such assets might be costly, the fact that public organisations are required to report on how the assets are being managed will ensure that no one could argue the assets' value to the public (Smith, 2007). It is therefore important that the value of heritage assets is properly determined but the specialised and unique nature of the assets presents a number of challenges (IVSC, 2012).

Given that the Federal Government of Malaysia is moving towards accrual accounting, it is more likely that the government will also be facing the challenges highlighted in the reviewed prior research. The question arises as to the extent to which the government will face these challenges. Thus, it is necessary for the government to assess the challenges so that the right steps could be taken to ensure the successful implementation of accrual accounting.

## **Research method**

Data for the study was collected through interviews. Face to face interviews were conducted with officials involved in the management of heritage items at the Ministry of Information, Communication and Culture, the Department of National Heritage and the Department of Museums of Malaysia. In Malaysia, these two departments are the main departments charged with the responsibilities to manage the heritage items of the Federal Government of Malaysia. Both departments are under the purview of the Ministry of Information, Communication and Culture (the Department of National Heritage and the Department of Museums of Malaysia are currently under the Ministry of Tourism and Culture).

The purpose of these interviews was to reach an in-depth understanding of the types and management of heritage items as well as the challenges facing the departments in the implementation of accrual accounting. Purposive sampling was used to identify the subjects to be interviewed. The selected subjects are those knowledgeable in the management of heritage items. This choice of sample strategically positioned the researchers to acquire comprehensive information efficiently. In total, thirteen government officials were involved in the interview sessions. Four representatives are from the Ministry of Information, Communication and Culture; five are from the Department of National Heritage and the other four are from the Department of Museums of Malaysia. Each interview session took about 1 to 1.5 hours to complete.

## Findings

## Type and management of heritage assets

## a. Department of Museums of Malaysia

Based on the interview, the registered collections of the Department of Museums of Malaysia consist of the Archaeological Collection, Ethnological Collection and Natural History Collection. The entire collection of the museum of over 100,000 items are grouped under 13 classifications for Archaeological Collection, 18 classifications for Ethnological Collection, and 10 classifications for Natural History Collection, as listed in Table 1.

Classification of Collections	Types of Heritage Items		
Natural History Collection	Ceramics, food residue, metal implements, wooden implements, votive		
	tablet, charcoal samples, Neolithic stone implements, Palaeolithic		
	implements, Hoabinian culture stone implements, haematite, burnt clay,		
	beads, stone sculpture		
Ethnological Collection	Decorations and textiles, personal ornaments, tools and industry, fire rel		
	tools (materials to produce fire), house (components that are relocated,		
	photos, models and plans), musical instruments, weaponry and war		
	implements, religions and belief systems, hunting traps, medicine and		
	magic, agriculture materials/tools, games and entertainment related		
	materials, livestock related materials		
Natural History Collection	Birds, mammals, amphibians, reptiles, sea/fresh water creatures, insects,		
	botany, geology, bones/skeletons, bird eggs		

## Table 1. Types of heritage items for each classification of collections

Source: Department of Museum of Malaysia

According to the officers in charge, the collections were acquired by way of gifts or donations, archaeological excavation and purchases. Acquisition by way of purchase was made through two committees, namely (1) the Technical Committee that proposes the acquisition and the purchase price, and, (2) the Quotation Price Committee that approves the acquisition price and the payment. Additionally, the Technical Committee also determines the monetary value of each item registered in the Department of Museums of Malaysia. For heritage items acquired by way of purchase, the amount paid is recorded as the financial value of the heritage item at the time of purchase.

The department has developed a database system to record details of each of the museum's collection which includes among others the object category, object name, registration number, date of acquisition, purchase price or monetary value and object age. At the present, detailed information are only available for the Ethnological Collection. The monetary values of the items are determined by the Technical Committee and take into account the historical, artistic, and culture values. Members of the Technical Committee are experts in their respective fields, including historians, researchers and specialists in the manufacture of pottery, metal, wood products and so forth. Additionally, the interview revealed that the monetary value of each of the registered collection item increases by 3% to 4% per annum. The appreciation in value for each item is also recorded in the database.

With regard to maintenance, periodic conservation is carried out to ensure that the museum's collections are in good condition and protected. The conservation work involves three activities -(1)preventive conservation action taken to prevent deterioration of an object caused by environmental conditions such as temperature, humidity, lighting elements and pest such as insects, fungus and air pollution; (2) treatment conservation which is conducted to treat deteriorating physical condition of an object to delay the process of deterioration, and (3) recovery which is carried out to restore cultural artefacts to a natural state of the artefact using the same material as the original. The decision to carry out conservation work is dependent on conditions namely (1) good and stable which need no conservation, (2) minor damage but stable which needs no immediate conservation, (3) less stable which needs immediate conservation; and (4) unstable which needs immediate conservation.

## b. Department of National Heritage

Items registered with the Department of National Heritage are classified as either National Heritage (Warisan Kebangsaan) or Heritage (Warisan). National Heritage refers to any heritage site, heritage object, underwater cultural heritage or any living person declared as National Heritage under Section 67 of the National Heritage Act 2005. National Heritage items are categorised into Sites, Objects and Living Legends (Orang Hidup) while Heritage items are categorised into Sites and Objects. Sites include buildings and monuments, archaeological sites and natural sites. Objects consist of tangible and intangible heritage, while Living Legends refer to individuals with outstanding skills in the areas of arts and culture that have been conferred the title of National Heritage of Living Legends (Warisan Kebangsaan Orang *Hidup*) by the Ministry of Tourism and Culture.

Under the classification of National Heritage and Heritage, Tables 2 and 3 show the types and number of heritage items of each category for each classification respectively.

Category	Туре	Quantity
Site	Building / Monument	47
	Archaeological site	6
	Natural site	7
Total Sites		60
Object	Tangible	67
	Intangible	241
Total Objects		308
Total Living Legends (O	rang	15
Hidup)	-	

### Table 2. Statistics of National Heritage (Warisan Kebangsaan)

Source: Department of National Heritage

### Table 3. Statistics of Heritage (Warisan)

Category	Туре	Quantity
Site	Building / Monument	176
	Archaeological site	2
	Natural site	2
Total sites		180
Object	Tangible	3
	Intangible	33
Total objects	-	36

Source: Department of National Heritage

Ownership of the heritage items, with the exception of Living Legends, is divided into ownership by either, the Federal Government, the State Government (including local authorities) or private ownership. According to the officers in charge, in terms of maintenance or restoration of heritage items, the Department of National Heritage carries out periodic conservation work to preserve the value of the items but not for the purpose of 'making over. Conservation involves work carried out to maintain the original condition of a building or a heritage site with the purpose of extending the life of the building or site so that it can be preserved for future generations. Conservation involves one or any combination of the following:

- 1) Preservation the approach used to prevent further deterioration and provide a safe and sturdy structure but not so as to rebuild.
- 2) Restoration the process of accurately recovering the form, details and location of a structure or part of a structure.
- 3) Reconstruction the process of accurately reconstructing the form and details of a structure (or part of it) that has been lost.
- 4) Rehabilitation the process of returning a property to its state of utility through repair or alteration, which makes it possible for an efficient use while preserving the portions and features of the property that are important to architecture and history.

## Challenges in accounting for heritage assets

a. Recognition and measurement

At present, no assets were recognized as the modified cash basis accounting treats all expenditures relating to heritage items (including purchase costs) as expenses in the year they were incurred. Under accrual-based accounting, all assets should be capitalised if their cost or fair value could be measured reliably. This requirement would be challenging for both departments.

For the Department of Museums of Malaysia, the Ethnological Collections have been valued but previously the data were used solely for record keeping and not for accounting purposes. The challenge would be to value the Archaeological Collection and Natural History Collection. For this purpose, the department needs to set up an expert team specifically to value the two collections.

'Currently we have database only for the Ethnological Collection which contains information on acquisition cost, date of acquisition, description of items, and annual increment rate of 3-5%. Financial value of items and annual increment rate for items were determined by our expert committee' (Senior Curator, Department of Museums of Malaysia)

At the Department of National Heritage, no effort at all has been made to value their collections items. According to the management of the department,

'Accrual accounting is new to us. We have no idea on how to place financial value to those heritage items. In fact, we never identified any experts who can value the items. These are going to be great challenges if the items are recognized as assets' (Director, Department of National Heritage Malaysia).

Moreover, accrual accounting also requires major subsequent expenses that prolong the useful life of an asset be capitalised. The officers in charge of both departments stated that currently all the costs incurred from the maintenance or conservation works are accounted for as operating expenses. Identifying subsequent expenses that should be capitalised would be problematic as the staffs in charge of financial management of the departments do not have accrual accounting experience.

'All this while we carry out maintenance and conservation works using fund obtained from the government based on our annual budgets and from UNESCO for heritage items recognized as World Heritage. There are routine maintenance and major conservation. We record all these as expenses' (Director, Department of National Heritage Malaysia).

## b. Assets registry

The database developed by the Department of Museum of Malaysia indicates that they are most unlikely to face much problem in setting up an asset registry as the current database can be used as a basis and extended to incorporate two other classifications of collections (the Archaeological and Natural History collections) which are currently not in the database.

Unlike the Department of Museums of Malaysia, currently the Department of National Heritage does not have a complete registry for heritage items under management. Thus, setting up an asset registry for accounting purposes would be challenging to the department.

'We do not have a data base for heritage items that we manage. At present we list all items according to classification either as National Heritage or Heritage. Under these we have three different categories Site, Objects or "Orang Hidup". Information on the location and ownership of heritage buildings are also included in the list. Ownership may be by the Federal Government, State Government or individual' (Director, the Department of National Heritage Malaysia)

## c. Staff competency

In general the officers involved in heritage asset management believe that the implementation of accrual accounting does not affect them. To them the heritage items are not assets.

'Our collections are not assets. Assets should be depreciated while the value of our collection increases every year. Our collections are very unique with high aesthetic value. Also, these items require high maintenance and conservation costs but we charge very minimal entrance fee which don't even cover the maintenance cost. To me it is more liability than asset' (Senior Curator, the Department of Museums of Malaysia)

The interviews also revealed that the transition to accrual accounting is challenging to not only the staff without accounting background but also to those with accounting background. As admitted by one of the accountants,

'We are so used to modified-cash basis. Actually we don't quite understand the requirements of accrual accounting. So far, we just follow the manuals and Treasury Instructions' (Accountant, the Ministry of Information, Communication and Culture)

## The way forward

Based on the findings, it can be concluded that the quantity as well as the historical and cultural values of the heritage items registered under the departments under study are highly significant. Our findings indicate that most heritage items managed by both departments meet the characteristics of heritage assets. Although the International Public Sector Accounting Standard (IPSAS) 17 or the Malaysian Public Sector Accounting Standard (MPSAS) 17 does not provide a specific definition of heritage assets, the standard outlines the unique features of such assets. As stipulated in IPSAS 17 and MPSAS 17, assets are deemed to be heritage assets for their cultural and environmental significance, their historical values which cannot

be fully reflected in financial terms solely based on market prices, their disposal are subject to legal restrictions, their value increases from time to time and their useful lives are difficult to estimate, which in some cases can be extended for hundreds of years.

In terms of recognition, the accounting standard does not require or prohibit the recognition of heritage assets. However, we recommend that if the monetary value of heritage items managed by both departments can be reasonably measured, they should be recognized and disclosed in the statement of financial position of the government. The heritage assets should be recognized at their fair values, except if it is not practicable to determine the fair values, then historical cost should be used. It is disadvantageous to the government if the heritage items that can be reasonably measured are not accounted and reported in its financial statements, as these assets can help improve and better reflect the financial position of the government as a whole. Nevertheless, it is important to ensure that the financial values determined must be reliable. As stated by Eversano and Ferrone (2012), preparers of financial statements have to ensure that if heritage assets are to be included on the statement of financial position, the valuations of heritage assets must be reliable and objective. Otherwise, they could give misleading information that would negatively affect accountability. This is going to be the greatest challenge for the departments involved, especially the Department of National Heritage, as the department has never allocated financial values to those heritage items managed by them. For the purpose of valuation, the department needs to identify experts and form a technical committee consisting of experts in determining the historical and cultural values of heritage items. Unlike the Department of National Heritage, the Department of Museums of Malaysia has already determined the monetary values of most of the museum's collection with the help of experts and has a proper registry for those items. This will ease the implementation of accrual accounting in the department.

We also emphasise that even if the monetary value of a heritage asset cannot be reasonably determined, non-financial information of these assets should still be disclosed in the notes to the financial statements so that financial report users will get a true picture of the government's heritage assets, while also allowing the government to clearly discharge its accountability to all its stakeholders through reporting. In line with IPSAS 17 and MPSAS 17 requirements, for operational heritage assets (assets that are not only national heritage but also used for other purposes or provide other services such as heritage buildings which are rented as an office building), we propose that they should be measured based on the same basis as an item of property, plant and equipment.

For those heritage assets for which their useful lives can be estimated, they should be depreciated. However, the useful lives of such assets should be reviewed at each financial year-end to determine whether the useful lives of assets are still accurate. For heritage assets with indefinite useful lives, we propose that they should not be depreciated. However, the carrying amount of these assets should be reviewed with appropriate frequency to ensure the assessment reflects the current situation. When there is evidence of impairment, for example, where the assets have suffered physical deterioration or damage, impairment of the assets should be accounted for in accordance with IPSAS impairment requirements. This recommendation is in line with the UK practice as stipulated in the UK accounting standard, FRS30.

With regards to conservation, it involves preventive and protective measures in safeguarding heritage assets (Yuszaidy et al., 2013). We believe that consideration should be given as to whether the costs incurred for conservation should be expensed off or capitalised. Routine costs incurred to preserve a heritage asset are proposed to be recognized as operating expenses. For example, in the Department of National Heritage, the costs that can be recognized as operating expenses are the costs incurred for routine maintenance, which aim to halt further deterioration or decay of buildings or heritage sites. While in the Department of Museums of Malaysia, the costs incurred for preventive conservation of the museum's collection of artefacts or deterioration caused by the environment, such as moisture, mold and air pollution, are examples of costs that are recognized as operating expenses.

In accordance with IPSAS 17 and MPSAS 17, the cost of any replacement of building materials such as wall cladding and the costs of any significant inspection work for damage to an asset, the capitalised cost should be recognized in the carrying value of the asset. Thus, in the Department of National Heritage, the costs involved for restoration, reconstruction and recovery of heritage assets are proposed to be capitalised. Similarly, in the Department of Museums of Malaysia, we suggest that the cost for conservation and recovery of heritage assets should be capitalised. This is because the work involves the replacement of materials and detailed inspections and significant physical damage or deterioration of the heritage assets.

In terms of disclosure and referring to the practices of the UK, New Zealand and Australia as stipulated in the countries' accounting standards (UK - FRS 30, New Zealand - FRS 3 and Australia – AASB 116), we suggest that the government should give an indication of the nature and scale of heritage assets in their financial statements and set the policies for the acquisition, preservation, management and disposal (if required and approved by the legislature) of heritage assets. The accounting policies adopted for heritage assets should be disclosed, including details regarding the measurement basis used. For heritage assets that are not reported in the statement of financial position, the reasons why they are not reported should be disclosed. In addition, the notes to the financial statements should explain the importance and nature of the asset and maintenance information.

We also emphasise that the transition to accrual accounting requires sufficient training to all operating staff. As far as the Department of Museums and the Department of National Heritage are concerned, their operating personnel need to be specifically trained in accounting for heritage assets. In addition, with the transition to accrual accounting, we suggest that special policies detailing the accounting for heritage assets including the recognition, measurement and valuation, depreciation and disclosure of heritage assets in the financial statements are required, as practiced in Australia (in the ACT Accounting Policy: Property, Plant and Equipment & Heritage and Community Assets). Detailed provisions of the accounting and reporting of heritage assets can also be specified in the Treasury Instruction or in a specific guideline as practiced in New Zealand (the Valuation Guidance for Cultural and Heritage Assets) or in a manual of financial reporting which includes accounting and reporting provisions of the asset as a whole, including heritage assets, as practised in the UK (the Financial Reporting Manual 2012-2013).

## Conclusion

In conclusion, previous studies have shown that the transition from cash to accrual-based accounting has raised a number of issues particularly relating to assets that have special characteristics and are unique such as heritage assets. These assets pose great challenges, especially in terms of the recognition and measurement of the assets. Despite the challenges, these assets should be accounted for and reported accurately according to their specific characteristics and unique nature so that stakeholders will get a comprehensive and accurate picture of the financial values of the assets and financial position of the government as a whole. Thus, the challenges such as those described in this paper should be given serious attention to facilitate a proper and accurate accounting treatment and reporting for the assets and to ensure the successful implementation of accrual accounting by the Federal Government of Malaysia.

## Acknowledgement

This paper is part of the results of the research funded by the Accountant General's Department of Malaysia (Project No: EPGL-006-2012).

## References

Ab Samad K, Shahidi AH, Rahim A, Zuraidah H, Daeng Haliza DJ (2012) Pendidikan warisan di muzium: Kajian berkaitan penggunaan laras bahasanya. *Geografia - Malaysian Journal of Society and Space* **8**(8), 35 – 46.

- Ah Choy E, Habibah A, Nurul Farahana MI, Hamzah J, Zaimah R, Sarmila MS, Amriah B, Nadiah AH, Nurain S (2014) Analisis faktor kepuasan pelancong terhadap tarikan pelancongan warisan di Melaka. *Geografia Malaysian Journal of Society and Space* **10** (8), 72 86.
- Aversano N, Christiaens J (2014) Governmental financial reporting of heritage assets from a user needs perspective. *Financial Accountability and Management* **30**(2), 150-174.
- Aversano N, Ferrone C (2012) The accounting problem of heritage assets. *Advanced Research in Scientific Areas* December, 574-578.
- Axinn WG, Pearce LD (2006) *Mixed method data collection strategies*. Cambridge University Press, Cambridge.
- Barker P (2006) Heritage Assets can Accounting do Better? Accountancy Ireland 38(4), 48-50.
- Barton D (2000) Accounting for Public Heritage Facilities Assets or Liabilities of the Government? Accounting, Auditing & Accountability Journal 13(2), 219-235.
- Barton D (2005) The Conceptual Concerning Accounting for Public Heritage Assets: A Note. *Accounting, Auditing & Accountability Journal* **18**(3), 434-440.
- Biondi L, Lapsley I (2014) Accounting, transparency and governance: The heritage assets problem. *Qualitative Research in Accounting and Management* **11**(2), 146-164.
- Blondal J (2003) Accrual accounting and budgeting: Key issues and recent developments. *OECD Journal on Budgeting* **3**(1), 43-59.
- Carnegie GD, Wolnizer PW (1995) The Financial Value of Cultural, Heritage and Scientific Collections: An Accounting Fiction. *Australian Accounting Review* **5**(1), 31-47.
- Carnegie GD, Wolnizer PW (1996) Enabling accountability in museums. Accounting, Auditing & Accountability Journal 9(5), 84-99
- Carnegie GD, Wolnizer PW (1999) Unravelling the Rhetoric about the Financial Reporting of Public Collections as Assets. *Australian Accounting Review* **9**(1), 16-21.
- Christiaens J, Rommel J, Barton A, Everaert P (2012) Should all capital goods of governments be recognized as assets in financial accounting? *Baltic Journal of Management* 7(4), 429 443.
- Gómez EJB, Casal RC (2008) Are the IPSASB and ASB proposals adequate for public heritage assets? *Estableciendo puentes en una economía global* **2**, 45.
- Grubisic M, Nusinovic M, Roje, G (2009) Towards efficient Public Sector Asset Management. *Financial Theory and Practice* **33**(3), 329-362.
- Hone P (1997) The financial value of cultural, heritage and scientific collections: A public management necessity? *Australian Accounting Review* 7(1), 38-43.
- Hooper K, Kearins K, Green R (2005) Knowing the Price of Everything and the Value of Nothing: Accounting for Heritage Assets. *Accounting Auditing and Accountability Journal* **18**(3), 410-433.
- IFAC-IPSASB (2010) IPSAS 17: Property, Plant and Equipment. IFAC, New York.
- IVSC (2012) Valuation of Specialised Public Service Assets Exposure Draft, International Valuation Standards Council, London.
- Khan A & Mayes S (2009) Transition to accrual accounting. IMF Technical Notes and Manuals, 1-20.
- Mautz RK (1981) Financial Reporting: Should Government Emulate Business? *Journal of Accountancy* **152**(2), 53-60
- Mautz RK (1988) Monuments, Mistakes and Opportunities. Accounting Horizons June, 123-28.
- Micallef F, Peirson G (1997) Financial Reporting of Cultural, Heritage and Scientific and Community Collections. *Australian Accounting Review* 7(1), 31-37.
- Näsi S, Hansen K, Hefzi H (2001) Off Balance Sheet Assets in Central Governments: Are They Unique or Are They Really Assets? *Journal of Interdisciplinary Studies* 14(2), 137-154.
- Pallot J (1990) The Nature of Public Assets: A Response to Mautz. Accounting Horizons June, 79-85.
- Porter S (2004) An Examination of measurement for valuating heritage assets using a tourism perspective. *Qualitative Research in Accounting and Management* 1(2), 68-92.
- PwC (2013) Towards a new era in government accounting and reporting. PwC Global Survey on accounting and Reporting by Central Government April, 1-40.

- Rowles T, Hutton B and Bellamy S (1998) Accounting for Infrastructure Assets: The Case of Land Under Road. *Proceedings of the Annual Conference of Accounting Association of Australia and New Zealand*. Adelaide.
- Smith P (2007) Money and the Monument. Accountancy 139(1362), 22-26.
- Stanton PJ, Stanton PA (1997) Governmental Accounting for Heritage Assets; Economic, Social Implications. *International Journal of Social Economics* **24**(7/8/9), 988-1006.
- Wild S (2013) Accounting for heritage, cultural and community assets Alternative metrics from a New Zealand Maori educational institution. *Australasian Accounting Business and Finance Journal* 7(1), 1-22.
- Wynne A (2007) Is the move to accrual-based accounting a real priority for public sector accounting? *Public Fund Digest* VI (1), 1-30.
- Yuszaidy MY, Hanapi D, Ab Samad K (2013) Perlindungan harta warisan: Keberkesanan usaha pemuliharaan dan pemeliharaan dalam pembangunan negara. Geografia - Malaysian Journal of Society and Space 9 (2), 64 – 77.