

The management of government immovable assets

Peer reviewed

Abstract

Asset management involves the management of immovable assets throughout its whole life cycle. This article presents the findings of research on the challenges facing National Government on the management of its immovable assets. The research contemplates the management of government immovable assets throughout its whole life cycle, the importance of an asset register as well as an immovable asset management plan. The primary data was collected by means of conducting interviews with government department personnel to reveal the strengths and weaknesses of the current theories and models within the government departments. Secondary data was obtained from the literature reviewed in relevant publications. The main findings were that the National Department of Public Works (NDPW) is currently ineffective in asset life cycle management, there is no clarity on the existence of an immovable asset management plan and that there is an urgent need for competent personnel with adequate skills to verify, capture and correct property data in an effective asset register.

Keywords: asset management, asset register, immovable assets, life cycle

Abstrak

Batebestuur behels die bestuur van vaste bates tydens die volle lewenssiklus van die bate. Hierdie artikel beskryf die resultaat van navorsing oor die uitdagings van die Nasionale Regering betreffende die bestuur van sy vaste bates. Die navorsing beskou die bestuur van bates tydens die volle lewenssiklus-fase, die belangrikheid van 'n bate-register sowel as 'n vaste bate bestuursplan. Die primêre data vir die navorsing was verkry deur onderhoude te voer met regeringspersoneel om die sterk- en swakpunte van huidige teorieë en modelle in die staatsdepartemente te bepaal. Sekondêre data is verkry uit relevante bestaande literatuur. Die hoofresultate dui aan dat die Nasionale Departement van Openbare Werke oneffektief is in die bestuur van vaste bates, daar is onduidelikheid oor die werklike bestaan van 'n vaste bate bestuursplan en dat daar 'n dringende behoefte bestaan aan bevoegde personeel om bates te verifieer, aan te teken en foute reg te stel in 'n effektiewe bate-register.

Sleutelwoorde: batebestuur, bate-register, vaste bates, lewenssiklus

Prof. Fanie Buys, Head of Department of Building and Quantity Surveying, Nelson Mandela Metropolitan University, P O Box 77000, Port Elizabeth, 6031, South Africa, E-mail: <Fanie.Buys@nmmu.ac.za>.

Ms Tamari Mavasa. MSc. student, National Department of Public Works, Private Bag X65, Pretoria, 0001, South Africa, <E-mail: Tamari.Mavasa@dpw.gov.za>

1. Introduction

During the last decade, the concept of asset management, with particular reference to immovable assets, has gained support on a global scale; many countries have embarked on implementing asset management principles and techniques in respect of all spheres of government. In the context of government, immovable asset management is defined as: "the planned alignment of immovable assets with service delivery" (National Treasury, 2004). This alignment is achieved by the systematic, integrated and appropriate management of all decision-making processes throughout the useful life of an asset.

The National Department of Public Works (NDPW) is responsible for providing and managing accommodation, housing, land and infrastructure needs for all National Departments. Improving immovable asset management processes and principles can play an important role in attaining government's objectives of economic growth and employment creation. It also has distinct benefits which relate to better service delivery, improved accountability, improved risk management and improved financial efficiency. Campbell (1999) stipulates that before an organisation embarks on an improvement plan, it should assess the strengths and weaknesses of present systems. Today's manager of public assets faces many challenges in the management of immovable assets.

The first key component of asset management encompasses the Immovable Asset Management Plan (IAMP) that serves as the management tool to guide the planning, acquisition, operation and maintenance and disposal of assets. Vanier (2000: online) states that the IAMP should have a series of underlying principles established at high-level organisations. The second key component of asset management is the asset register that record the essential data pertaining to the status and condition of all immovable assets. Wilson (1999) argues that it is important that the assets are recorded, numbered, labeled accurately and also highlights the time frame for property needing statutory inspection in the asset register. The third key component is the performance management system that records vital information pertaining to the performance of immovable assets in terms of achieving its strategic goals.

2. The Key Elements of Immovable Asset Management

2.1 Immovable Asset Management Plan

The IAMP aligns service delivery strategies and priorities with the immovable asset strategies and proposes specific strategies for acquisitions, disposals, leasing, management and maintenance of immovable assets, as well as identifies funding solutions and addresses all risk related issues (National Department of Public Works, 2003). The National Treasury (2004) states that organisations use the IAMP as instrument to demonstrate how it links service objectives efficiently and effectively. Planning for immovable assets should be seen in the context of overall asset management practices and policies; it must focus the attention and activities of property users on the opportunity and long-term operational costs of property as a resource, as well as highlight the implications of not planning and optimising the properties utilised.

Asset strategy should be adjunct to the overall strategy of the organisation. Brownless (2005) is of the opinion that asset strategy should be consistent with other policies or strategies, be able to identify the assets and the state of their required performance, be optimised and take into account the risk assessment, in particular identifying critical assets. Wilson (1999) articulates that time is best spent on development of an asset strategy when there is an appreciation of knowledge of the corporate and production objectives, future operational needs of the property, an appreciation of the asset plans, an understanding of the property life cycle, knowing the impact of the latest safety regulations and statutory requirements, and understanding the objectives of assets. Information, understanding and evaluation need to be explored in the process of the development of an asset strategy (Gibson, 2005: online).

2.2 Asset Register

Managers of immovable assets should at least obtain a database that will contain details of all assets of the organisation, and provide information about assets needed for financial and operational management and servicing. French (2005: online) states that asset registers are records of fixed assets whose value is material, their function is to provide the information about assets needed for their financial management, operational management and servicing to support immovable assets as shown in the balance sheets. The

assessment and updating of information in the asset register will make the management processes more simple, effective, and easy to manage. Training is crucial to the managers of the asset register. Mather (2005) argues that in order to determine what strategic asset management is required, the organisation should analyse the existing component capabilities, skills and capacities.

2.3 Performance Management System

As assets age, their performance or the level of service provided, deteriorates. Immovable assets' performance needs to be predicted when their ability to meet service standards drop to an unacceptable level. The performance management system assesses the effectiveness of operational, maintenance and capital works programs. The National Treasury (2004) states that the primary tool for monitoring and evaluating the degree to which immovable assets contributes to realising the objectives of the organisation is through the implementation of a performance management system.

3. Research method

Research was conducted by the Nelson Mandela Metropolitan University to assess the management of immovable assets within South African government departments. The National Department of Public Works was targeted as a potential organisation to participate in this study. Leedy & Ormrod (2005) state that research is a viable approach to a problem only when there are data to support it. Interviews were conducted to reveal the strengths and weaknesses of the current theories and models within the NDPW.

A random sample of twenty staff members was drawn from all levels of the hierarchy to help ensure an unbiased sample population. According to Patten (2004: online), the larger the sample size, the greater the probability the sample will reflect the general population. A target population of twenty was deemed sufficient for research of this nature. Patten also identifies an unbiased sample as one in which every member of a population has an equal opportunity of being selected in the sample.

4. Survey results

Of the target population of twenty staff members, only eighteen were interviewed as the remaining two persons were not accessible during the interview time frame. The responses to various questions

were noted on a spreadsheet during the session with each of the interviewees after which the results were summarised in table format indicating number of respondents and ratings.

4.1 Definition of asset management

Respondents were requested to state to what extent they agreed with a given definition of asset management to determine their knowledge of asset management, namely "Asset management is a business discipline for managing the life cycle of infrastructure assets to achieve a desired service level while mitigating risk." The results in Table 1 indicate that 11.1% of the interviewees partially agreed with the definition. The majority (88.9%) of the respondents indicated that they either 'Agree' (27.8%) or 'Strongly agree' (61.1%) with the definition. The average rating of 4.50 is very positive, as it indicates that the majority of respondents have a good understanding of the concept of asset management.

Table 1: Definition of Asset Management

Responses:	Do not know	Rating					Total
		1=Strongly disagree	2	3	4	5=Strongly agree	
Number of respondents	0	0	0	2	5	11	18
Percentage of total	0	0.0	0.0	11.1	27.8	61.1	100
Average rating		4.50					

4.2 Importance and effectiveness of Asset Management

Table 2: Importance of Asset Management throughout its Life Cycle

Responses:	Rating					Total
	1=Not important	2	3	4	5=Extremely important	
Number of respondents	0	0	1	1	16	18
Percentage of total	0.0	0.0	5.6	5.6	88.9	100
Average rating	4.83					

The results in Table 2 indicate that 5.6% of the interviewees were doubtful whether it is important for an organisation to manage assets throughout its life cycle. The majority (94.2%) of the respondents

indicated that the life cycle management of assets is either 'Important' (5.6%) or 'Extremely important' (88.9%). The average rating of 4.83 (Extremely important) is very positive, as the key element of asset management operates within a life cycle framework.

Responses:	Do not know	Rating					Total
		1=Very ineffective	2	3	4	5=Very effective	
Number of respondents	0	3	6	7	0	2	18
Percentage of total	0	16.7	33.3	38.9	0.0	11.1	100
Average rating		2.56					

Table 3: Effectiveness of Asset Life Cycle Management in the NDPW

The results in Table 3 indicate that half the interviewees indicated that asset life cycle management is either 'Very ineffective' (16.7%) or 'Ineffective' (33.3), whilst 38.9% indicated neutral. The remaining 11.1% of respondents indicated that the organisation is very effective in asset life cycle management. The average rating of 2.56, which is below 'Neutral', indicates that there are more respondents who are of the opinion that the NDPW is ineffective in asset life cycle than those who think it is effective. Asset life cycle management should be effective in any organisation to ensure that assets are managed properly.

4.3 Immovable Asset Management Plan

The aim of the Immovable Asset Management Plan (IAMP) is to integrate the requirement for immovable assets with a wider service delivery strategy and to plan for such assets on a longer-term basis.

Responses:	Rating					Total
	1=Not important		5=Extremely important			
	1	2	3	4	5	
Number of respondents	0	1	1	2	14	18
Percentage of total	0.0	5.6	5.6	11.1	77.8	100
Average rating	4.61					

Table 4: Importance of an Immovable Asset Management Plan

The summary of the results in Table 4 indicates that 5.6% of the interviewees were neutral in whether an IAMP is important to the organisation. The majority (88.9%) of the respondents indicated either 'Important' (11.1%) or 'Extremely important' (77.8%). The average rating of 4.61 is very positive as an IAMP will enable the organisational priorities to be delivered.

Responses:	Rating					Total
	1=Non existent		5=Fully existent			
	1	2	3	4	5	
Number of respondents	6	2	1	3	6	18
Percentage of total	33.3	11.1	5.6	16.7	33.3	100
Average rating	3.06					

Table 5: Existence of an Immovable Asset Management Plan

The implementation of an IAMP is a best practice improvement methodology that provides an asset management framework and improved guidelines to improve the management of assets in the organisation. Any organisation that manages assets should develop an IAMP that aligns service delivery strategies and priorities with the immovable asset strategies and that proposes specific strategies for acquisitions, disposals, leasing, management and maintenance of assets as well as identify funding solutions and address all risk related issues. The summary of the results in Table 5 indicate that 44.4% of the interviewees indicated that the organisation does not have an IAMP, 5.6% were neutral and the remaining 50% of the interviewees indicated that an IAMP does exist to some extent. The average rating of 3.06 indicates that there is uncertainty amongst respondents whether an IAMP really exists, or respondents are not well informed.

4.4 Asset Register

The asset register is the basis of an asset management information system and it should contain relevant data beyond that required for financial reporting. The results in Table 6 in relation to the definition of the asset register indicates that all interviewees agree to some extent

Responses:	Rating					Total
	1=Strongly disagree	2	3	4	5=Strongly agree	
Number of respondents	0	0	0	5	13	18
Percentage of total	0.0	0.0	0.0	27.8	72.2	100
Average rating	4.72					

that an asset register contains all assets, financial and legal information of the company's assets.

Table 6: Definition of Asset Register

The asset register is of strategic importance in the NDPW's drive to obtain the best functional, social and financial returns from its property portfolio. The summary of the results in Table 7 indicate that all interviewees agree that the asset register is important to asset

Responses:	Rating					Total
	1=Not important	2	3	4	5=Extremely important	
Number of respondents	0	0	0	2	16	18
Percentage of total	0.0	0.0	0.0	11.1	88.9	100
Average rating	4.89					

managers. This indicates that it is important from a strategic management, planning, and performance measures perspective that the required property data is available and correct in the asset register.

Table 7: Importance of Asset Register in Managing Assets

The effectiveness of managing the immovable asset portfolio depends on the accuracy and completeness of the asset register. The results in Table 8 indicate that only a slight majority (55.5%) of the respondents are of the opinion that the organisation does have an accurate and complete asset register. The majority of the respond-

ents avowed that the organisation uses the property management information system as an asset register. The NDPW is, however, facing

Responses:	Do not know	Rating 1=Very inaccurate _ 5=Very accurate					Total
		1	2	3	4	5	
Number of respondents	2	5	0	1	8	2	16
Percentage of total	11.1	27.8	0.0	5.6	44.4	11.1	100
Average rating		3.13					

a huge challenge in completing the asset register as there is a lack of competent personnel with adequate skills within the organisation to research, verify, capture and correct property data. This is the main

Responses:	Do not know	Rating 1=Never, 2=Every five years, 3=Annually, 4=Quarterly, 5=Monthly					Total
		1	2	3	4	5	
Number of respondents	5	7	0	3	2	1	18
Percentage of total	27.8	38.9	0.0	16.1	11.1	5.6	100
Average rating		2.23					

reason why maintenance to property is neglected and sharing of information contained in the asset register is lacking.

Table 8: Accuracy and completeness of Asset Management Software

4.5 Performance measures for immovable asset

Table 9: Frequency of monitoring asset performance

The summary of the results in Table 9 indicate that 32.8% of the interviewees indicated that the performance of assets are either monitored 'Annually' (16.1%), 'Quarterly' (11.1%) or 'Monthly' (5.6%). The average rating of 2.23 indicates approximately every two years. It is, however, quite disturbing to note that 27.8% of the interviewees do not know how often the organisation measures the performance

of its assets, while almost 40% (38.9%) of the interviewees indicated that the performance of assets is never monitored.

To determine the performance of assets when monitored, respondents were requested to indicate the level of performance. Table 10 indicates that 16.7% of the interviewees do not know how well the

Responses:	Do not know	Rating					Total
		1=Very dissatisfactory	2	3	4	5=Very satisfactory	
Number of respondents	3	7	0	5	3	0	18
Percentage of total	16.7	38.9	0.0	27.8	16.7	0.0	100
Average rating		2.27					

organisational assets are performing. 38.9% of the interviewees indicated that the performance of assets is very dissatisfactory. The remainder 27.8% of the interviewees was neutral and 16.7% indicated that the performance of asset from operational, functional and financial perspective is satisfactory. The average rating of 3.27 (Dissatisfactory) indicates the negative attitude towards the poor performance of the government assets. The lack of monitoring and evaluation systems of assets within the department resulted in assets not maintained at their optimal value. Over time this has resulted in government's IA being stripped of their inherent value

Table 10: How well Assets Performs in Organisation

The average rating of 2.27 indicates that most government assets are not performing well, are deteriorating and need urgent upgrading to meet the required performance standards.

5. Conclusion

The main objective of the research was to investigate the management of government immovable assets.

The research results indicated that the majority of the respondents had a good idea of the scope of asset management and also agreed on the importance of asset management. However, there are more respondents who are of the opinion that the NDPW is currently ineffective in asset life cycle management than those who think it is effective.

Although the majority of respondents indicated that the presence of a IAMP is very important for the NDPW, the results indicated that there is uncertainty amongst respondents whether an IAMP really exists, or respondents are not well informed.

To have an effective asset management system, an accurate asset register is needed to obtain the best functional, social and financial returns from the NDPW's property portfolio. Although some respondents are aware of such an asset register, it seems to be inaccurate and there is an urgent need for competent personnel with adequate skills within the organisation to research, verify, capture and correct property data so that it can provide information that meets management decision-making requirements.

Two-thirds of the respondents indicated that they do not know whether the performance of the NDPW's assets are monitored (27.8%), or indicated that it is not monitored (38.9%) at all. Furthermore, almost 40% of respondents indicated that the existing performance of immovable is very dissatisfactory.

A best practice asset management practice relies on the integration of knowledge, understanding, and experience of how assets can contribute to business planning, such as acquisition, disposals, workplace strategies and refurbishments. The NDPW should first define its role, responsibilities, goals and objectives in terms of its assets. An asset management framework should be developed and principles and processes should be put into practice. Planning should be seen as the context of overall asset management practice. The development of the immovable asset management plan will enable the organisation to measure performance of assets.

Asset management training and leadership skills are required for asset managers at all levels of the organisation and there is a need to develop programs and activities for all personnel to raise awareness of asset management as a strategic corporate resource. The effective management of assets depends on the development of an IAMP, accuracy and completeness of an asset register, and management of the immovable asset register throughout its whole life cycle.

References

Brownless, G. 2005. *An Asset Management Model for UK Railway Safety. Literature review and Discussion Document*. Harpur Hill: Crown Copyright.

Acta Structilia 2007: 14(1)

Campbell, J.D. 1999. *Uptime: Strategies for excellence in Maintenance Management*. Portland: Productivity Press.

French, N. 2005. *Asset Register and Asset Rents for Local Authorities: A Viable Property Management Tool*. [online]. Emerald Group Publishing Limited. Available from: <<http://oberon.emeraldinsight.com/vl=4> > [Accessed: 02 July 2006].

Gibson, V. 2005. *Strategic Property Management: How can Local Authorities Develop a Property Strategy*. [online]. Emerald Group Publishing Limited. Available from: <<http://oberon.emeraldinsight.com/vl>> [Accessed: 2 July 2005].

Leedy, P.D. & Ormrod, J.E. 2005. *Practical Research*. 8th ed. New Jersey: Pearson Education.

Mather, D. 2005. *The Maintenance Score Card: Creating strategic advantage*. New York: Industrial Press.

National Treasury. 2004. *Asset Management: Guidelines for Implementing the New Economic Reporting Format, Learners Guide*. Pretoria: Government Printers.

Patten, S.B. 2004. *Impact of Antidepressant Treatment on Population Health: Synthesis of Data from Two National Data Sources in Canada*. [online]. Population Health Metrics 2004. Available: <<http://www.pophealthmetrics.com/content/2/1/9>> [Accessed: December 2006].

Vanier, D.J. 2000. *Advanced Asset Management: Tools and Techniques, Innovations in Urban Infrastructure*. [online]. Seminar of the APWA International Public Works Congress. Louisville. U.S.A, PP. 39-56, Available from: <<http://www.nrc.ca/irc/uir/apwa/apwa00>> [Accessed: 17 July 2006].

Wilson, A. (ed.). 1999. *Asset Maintenance Management: A guide to developing strategy and improving Performance*. Oxford: Alden Press.