AN INVESTIGATION INTO THE ACCOUNTING TREATMENT OF PROPERTY, PLANT AND EQUIPMENT AT PUBLIC HIGHER EDUCATION INSTITUTIONS IN SOUTH AFRICA

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SUNILDUTT KHERU

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Supervisor: Prof. P. Singh (PhD)

Co-supervisor: Mr MSE Kharwa (MComm)

DECLARATION

I, Sunildutt Kheru do declare that this dissertation is a representation of my own work in both conception and execution. This dissertation represents research work carried out by myself and it has not been submitted in any form for another degree at any university or higher learning institution. All information used from published or unpublished work of others has been acknowledged.

The research described in this dissertation was supervised by

Professor P Singh (PhD)

and

Mr MSE Kharwa (MComm)

Durban University of Technology

Mr S.Kheru: _____ Date: _____

Approved for final submission

Prof. P. Singh: _____ Date: _____

DEDICATION

This work is dedicated to my son Shivan Kheru

And

My daughter Juhi Kheru

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I wish to express my most sincere gratitude to the following people for their support and contribution in the completion of this study.

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ABSTRACT

Property, plant and equipment (PPE) constitute a significant portion of total assets of South African public higher education institutions. It is therefore important to keep proper records of the assets and to account for them accurately in the Annual Financial Statements. The aim of this study therefore was to investigate the accounting treatment of property, plant and equipment at public higher education institutions (PHEIs) in South Africa. The following objectives were addressed in this study, to: determine how assets are classified; find out how asset transactions are recorded; and to determine the accounting treatment of assets in terms of cost, depreciation, impairment and disposal.

Based on the International Financial Reporting Standards, this study used a mixed-methods research approach to collect data regarding the accounting treatment of PPE at the 23 PHEIs in South Africa. Analysis of results indicated that some institutions: apply different useful lives for the same asset classes; use threshold amounts for the recording and depreciating of assets; use the same value for the recording and depreciating of assets while others record at one value but depreciate at a higher value; and depreciate PPE at different rates as they apply varying useful life to different asset classes. This study also found that while some institutions do impairment testing on an annual basis, others do not, as they do not have a policy in place for impairment testing.

Given that the activities or business of educational institutions are similar in nature, this study recommends that PHEIs need to apply consistent recording of assets in terms of their useful life as the useful life of an asset has direct correlation with the surplus or deficit of an institution. This study makes further recommendations regarding the accounting treatment of PPE at PHEIs in South Africa based on the findings of this study. Suggestions for further research are also presented.

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CHAPTER ONE

INTRODUCTION

Following the mergers of several universities and technikons, the South African higher education system presently has 23 public higher education institutions (PHEIs) as follows: 6 universities of technology, 6 comprehensive universities, and 11 traditional universities. Kavanagh and Ashkanasy (2006); explain that the purpose of mergers are to streamline for efficiency with the focus on financial stringency and to achieve diversity, growth and rationalization (*see also* Singh, 2011).

Property, plant and equipment (PPE) constitute a significant portion of South African public higher education institutions' total assets. It is therefore important to keep proper records of the assets and to account for them accurately in the annual financial statements. The objective of financial statements according to Pretorius, Venter, Von Well and Wingard (2009:3), is to provide information about the: financial position; performance; and changes in the financial position of an entity that is useful to a wide range of users in making economic decisions.

1.1 BACKGROUND TO THE STUDY

Historically, the financial reporting of PPE was done according to South African Post Secondary Education (SAPSE) as laid out by the Department of Education. PHEIs were given specific guidelines on the classification and management of moveable and immoveable assets (*see* SAPSE-006, 1995; SAPSE-008, 1995*).*

From the year 2000, the Department of Education's requirement for financial reporting of institutions is in terms of Generally Accepted Accounting Practice (GAAP) as issued by the Accounting Practices Board (APB) in South Africa. The most significant impact the implementation of depreciation to PPE. Government Gazette 21 (2003) re-iterated that the financial statements are to be prepared in accordance with the published South African statements of GAAP. At present, according to Pretorius *et al.* (2009:2), statements or interpretations of statements of GAAP are fully aligned with International Financial Reporting Standards (IFRS).

The researcher has been employed as an asset manager at a higher education institution (HEI) for more than a decade. He has also been an active member of the Asset Management Forum of Southern Africa, previously known as the National Asset Management Forum where he served as a Chairperson in 2003 and 2004 and as Vice-chairperson in 2010. The Forum comprises of staff responsible for the management of assets at higher education institutions. Through association and alliance with the other institutions, the researcher is acutely aware that although financial practices at PHEIs in South Africa are aligned with IFRS, implementation in terms of recording and reporting differs among institutions. In other words, there is an inconsistent accounting treatment of similar transactions of PPE, due to the absence or the lack of a standard.

1.2 RESEARCH PROBLEM

According to Pretorius *et al.* (2009), one of the primary qualitative characteristics of financial statements should be comparability. They add that the measurement and presentation of the financial effect of like transactions should be carried out in a consistent way throughout an entity and over time for that entity, and in a consistent way for different entities (Pretorius *et al*., 2009:6).

The problem that this research is concerned with therefore is that although PHEIs conform to GAAP and IFRS, there is no consistency in the recording of PPE. This means that there is no comparability in terms of asset management across PHEIs in South Africa.

1.3 AIM AND OBJECTIVES OF THE STUDY

The aim of this study is to investigate the accounting treatment of property, plant and equipment at public higher education institutions in South Africa.

In order to achieve the above aim, the following objectives will be addressed, to:

- identify the different asset classes and their respective useful life;
- determine how asset transactions are recorded; and to
- determine the accounting treatment of assets in terms of cost, depreciation, impairment and disposal.

1.4 RATIONALE OF THE STUDY

It is hoped that the findings of this study will be used to determine best practice for the consistent accounting treatment of PPE at PHEIs in South Africa which is in compliance with IFRS. This study will make recommendations to the Department of Higher Education and Training regarding the accounting treatment of PPE.

1.5 DELIMITATIONS

This study is limited to public higher education institutions in South Africa, as the researcher seeks to establish best practice at PHEIs in South Africa. Asset managers and auditors of public HEIs were selected as participants in this study.

1.6 ABBREVIATIONS USED IN THIS STUDY

GAAP	-	Generally Accepted Accounting Practices
PHEIs	-	Public Higher Education Institutions
IFRS	-	International Financial Reporting Standards
PPE	-	Property, plant and equipment
SAICA	-	The South African institute of Chartered Accountants.
SAPSE	-	South African Post Secondary Education

1.7 OUTLINE OF CHAPTERS

The report on this study is made up of five chapters. These chapters cover the following areas:

Chapter 1: Introduction

This chapter introduced the study and presented the background, research problem, aim and objectives of the study, rationale for the study, research methodology and delimitations of the study.

Chapter 2: Literature review

This chapter reviews pertinent literature and discusses the theoretical and conceptual framework underpinning the study.

Chapter 3: Research methodology

The research methodology, research design, data collection and analyses, and delimitations of this study is presented in this chapter.

Chapter 4: Data analysis and results

Analysis of results and a discussion of the findings are presented in this chapter.

Chapter 5: Conclusion and recommendations

The last chapter presents the research conclusions and makes recommendations for further research.

CHAPTER TWO

LITERATURE REVIEW

2.0 INTRODUCTION

This chapter identifies the literature reviewed to explain relevant aspects of the research study. Literature review as explained by Sekaran and Bougie (2010:38) is a step by step process where published or unpublished work from secondary data sources related to the study is collected. Since PHEIs financial reporting has to conform to GAAP, it is necessary to understand what GAAP refers to.

2.1 DEFINING GAAP

According to Weirich, Pearson and Churyk (2010:50-52) GAAP is a technical accounting term which encompasses the conventions, rules, and procedures necessary to define accepted accounting practice at a particular time. This definition implies the following:

- GAAP is not a static, well-defined set of accounting principles, but a fluid set of principles based on current accounting thought and practice. GAAP changes in response to changes in the business environment.
- GAAP is not composed of mutually exclusive accounting principles. Alternative principles for similar transactions may sometimes be considered equally acceptable.

Weirich *et al*. (2010:52) identify two major functions that GAAP performs, namely: measurement and disclosure

- Measurement: GAAP requires recognition or matching expenses of a given period with the revenues earned during that period. Besides attempting to measure periodic income objectively, the measurement principle focuses on the valuation of financial statements accounts.
- Disclosure: GAAP provides information necessary for the users' decision models, however, GAAP does not require disclosure of certain macroeconomic factors for example, interest rates and unemployment rates that may interest the entity, bankers and other financial statement users.

  The users of financial statements include present and potential investors, employees, lenders, suppliers, customers and government (SAICA 2008/2009:74).

The statements of GAAP make reference to various terminologies. It is necessary to define the core terminologies in this research in order to facilitate a wide understanding.

2.2 CORE TERMINOLOGIES

The core terminologies are briefly explained below as detailed explanations are presented as this chapter progresses.

Carrying amount is the amount at which an asset is recognized after deducting any accumulated depreciation and accumulated impairment losses.

Cost is the amount of cash or cash equivalents paid or the fair value of other consideration given to acquire an asset at the time of its acquisition or construction.

Depreciable amount is the cost of an asset or other amount substituted for cost, less its residual value.

Depreciation is the systematic allocation of the depreciable amount of an asset over its useful life.

Diminishing balance method of depreciation refers to a decreasing charge over the useful life of the asset. This method applies a fixed percentage to the carrying amount of the asset at the beginning of each period.

Fair value is the amount for which an asset could be exchanged between knowledgeable, willing parties in an arm's length transaction.

Impairment loss is the amount by which the carrying amount of an asset exceeds its recoverable amount.

Recoverable amount is the higher of an asset's net selling price and its value in use.

Residual value of an asset is the estimated amount that an entity would currently obtain from disposal of the asset, after deducting the estimated cost of disposal, if the asset were already of the age and in the condition expected at the end of its useful life.

Straight line method of depreciation refers to a constant charge over the useful life of the asset.

Useful life is the period over which an asset is expected to be available for use by an entity or the number of production or similar units expected to be obtained from the asset by an entity.

Value in use is the present value of the future cash flows expected to be derived from an asset or cash-generating unit.

2.3 PROPERTY, PLANT AND EQUIPMENT (PPE)

2.3.1 Definition of PPE

PPE is often referred to as assets or 'fixed assets'. Assets are defined as being the resources controlled by the entity as a result of past events and from which future economic benefits are expected to flow to the entity (Pretorius, Venter, Von Well, Wingard and Ferreira, 2010:7). There are three specific features that define an asset, namely: future economic benefits, controlled by the entity and result of past event.

Future economic benefits – are usually in the form of future receipts of cash, but with universities future economic benefits or service potential are services to be provided by the asset.

Controlled by the entity – this refers to the capacity of the entity to benefit from the asset in pursuit if its objectives. The entity must be able to restrict the access of the benefit to other parties.

Result of past event – the asset must have already (i.e. past event) been acquired or transferred to the control of the entity.

Items of PPE are tangible assets (you can touch and see them) that are held by an entity for usage in the production or supply of goods and services, for administrative purposes or rental to others and are expected to be used during more than one period. One period refers to a financial year or trading period. An entity will decide on its financial year which is the period of time chosen for regular reporting to the various stakeholders of the business.

In the first financial year in which an entity operates and in any year that the financial year is changed, it is possible to have a financial reporting period of more or less than 12 months in this transitional period. This does not necessarily mean that it is used for 12 months. It could relate to an asset acquired two months before the end of a period that is expected to be used for six months. Accordingly that asset will be used in more than one reporting period (Kew and Watson 2010:340). An item is recognized as an asset when the asset recognition criteria are met.

2.3.2 Asset recognition

According to Birt, Chalmers, Beal, Brooks, Byrne and Oliver (2008:139) recognition refers to recording items in the financial reports with monetary value assigned to them. Asset recognition therefore means that the asset is recorded and appears on the balance sheet.

IAS16 states that PPE should be recognized as an asset when it is probable that future economic benefits associated with the asset will flow to the entity ; and the cost of the asset to the entity can be measured reliably.

An item of PPE that qualifies for recognition as an asset should initially be measured at cost (Dempsey and Pieters 2009:271).

2.3.3 Determining costs

Ernst and Young (2008:958-959) explained that the cost of an item of PPE comprises the following:

- its purchase price, including import duties and non-refundable purchase taxes, after deducting trade discounts and rebates;
- any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management, and
- the initial estimate of the costs if dismantling and removing the item and restoring the site on which it is located, the obligation for which an entity incurs either when the item is acquired or as a consequence of having used the item during a particular period for purposes other than to produce inventories during that period. All site restoration costs and other environmental restoration and similar costs must be estimated and capitalized at initial recognition, in order that such costs can be recovered over the life of the item of PPE, even if the expenditure will only be incurred at the end of the items life.

Directly attributable costs are therefore the key issue in the measurement of costs.

2.3.3.1 Directly attributable costs

Ernst and Young (2008:959) state that types of expenditure that are considered to be directly attributable may be included in the cost at initial recognition. The following are examples of those types of expenditure:

- Costs of employee benefits arising directly from the construction or acquisition of the item of property, plant and equipment. This means that the labour costs of an entity's own employees, site workers, in-house architects and surveyors arising directly from the construction, or acquisition of the specific item of PPE may be recognized;
- costs of site preparation;
- initial delivery and handling costs;
- installation and assembly costs;
- cost of testing whether the asset is functioning properly, after deducting the net proceeds from selling any items produced while brining the asset to that location and condition, such as samples produced when testing equipment; and
- professional fees.

However, certain types of expenditure have to be excluded from the cost during initial recognition.

2.3.3.2 Excluded costs

The South African Institute of Chartered Accountants (SAICA) (2009:1169) lists the following as costs that are not costs of an item of property, plant and equipment:

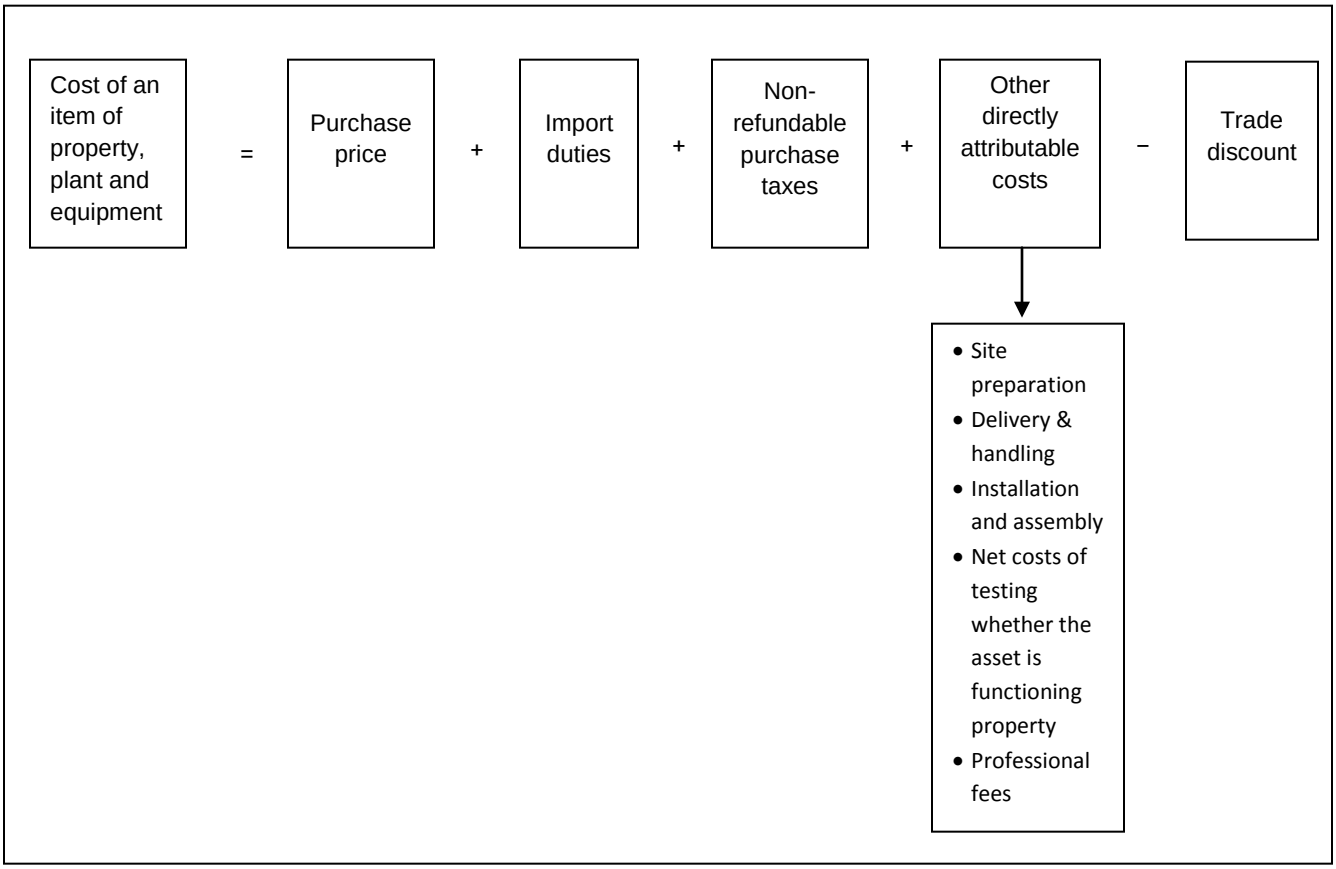
- opening a new facility;
- introducing a new product or service including costs of advertising and promotional activities;
- conducting business in a new location or with a new class of customer; and
- administration and other general overhead costs.

Recognition of costs in the carrying amount of an item of PPE ceases when the item is in the location and condition necessary for it to be capable of operating in the manner intended by management.

As per SAICA (2009:1169), the following costs are not included in the carrying amount of an item of property, plant and equipment:

- costs incurred while an item capable of operating in the manner intended by management has yet to be brought into use or is operated at less than full capacity;
- initial operating losses, such as those incurred while demand for the item's output builds up; and
- costs of relocating or reorganizing part or all of an entity's operations.

Kolitz, Quinn and McAllister (2009:266) show the elements of the cost of an item of property, plant and equipment diagrammatically below.



Source: Koltiz, Quinn and McAllister (2009:266)

Once the cost of an item of PPE has been determined, the entity needs to establish if the asset item has any significant parts or components. These components will have to be recorded separately.

2.4 ASSET COMPONENTS

According to Everingham and Watson (2005:8:9), IAS16 recognises circumstances where the total expenditure on an asset may need to be allocated to different components. When an item of PPE is acquired, its total cost should be allocated to its significant parts or components, after which each part should be depreciated separately (Pretorius *et al* 2010:154).

These parts will need to be depreciated at different rates, according to expected lifetimes. Scheepers (2003) states that an entity allocates the amount initially recognized in respect of an asset to its component parts and accounts for each component separately when: they have different useful lives, or when they provide benefits to the entity in a different pattern. Jackson and Stent (2012:14/20) add that costs should be allocated to significant parts where: the cost of the part is significant in relation to then total cost of the item; a part and the remainder of the unit have different useful lives or different residual values. The following example from the researcher illustrates different components in an asset:

University 'A' constructed a new building for R20 000 000 (R20m) and identified the following components: building structure, air conditioning system and elevators.

Component	R	Useful life and depreciation method
Building structure	13 000 000	Useful life of 50 years, depreciated using the straight line method
Air conditioning system	4 000 000	Useful life of 10 years, depreciated using the straight line method
Elevators	3 000 000	Useful life of 10 years, depreciated using the diminishing balance method

Source: Researcher's own example

2.5 CAPITALISATION OF BORROWING COSTS

According to Elliot and Elliott (2011:406-407), when an asset takes a substantial period of time to get ready for its intended use or sale then the entity may incur significant borrowing costs in the preparation period. Under the accruals basis of accounting there is an argument that such costs should be included as a directly attributable cost of construction.

The accrual basis of accounting refers to the effects of transactions and other events been recognized when they occur and they are recorded in the accounting records and reported in the financial statements of the periods to which they relate (SAICA 2008,2009:77).

IAS 23 states that borrowing costs that are directly attributable to the acquisition, construction or production of a 'qualifying asset' should be included in the cost of that asset. A 'qualifying asset' is one that necessarily takes a substantial period of time to get ready for its intended use or sale.

Borrowing costs that would have been avoided if the expenditure on the qualifying asset had not been undertaken are eligible for capitalisation under IAS23. Where the funds were borrowed specifically for the purpose of obtaining a qualifying asset then the borrowing costs that are eligible for capitalisation are those incurred on the borrowing during the period, less any investment income on the temporary investment of those borrowings.

Elliot and Elliott (2011:406-407) state that capitalisation should commence when:

- expenditure for the asset are being incurred;
- borrowing costs are being incurred; and
- activities that are necessary to prepare the asset for its intended use or sale are in progress.

When all the activities necessary to prepare the qualifying asset for its intended use or sale are complete the capitalisation should cease.

Capitalisation of borrowing costs is more likely to be appropriate for self-constructed assets, as there will be a time-lag between incurring constructions costs and being able to benefit from the utilization of the asset (Everingham and Watson 2005:8:13). After the asset is in use the entity could incur subsequent expenditure.

2.6 SUBSEQUENT EXPENDITURE

The term subsequent expenditure refers to any expenditure incurred on PPE after it has been used (Kew and Watson 2010:355). They add that it shall be considered whether the expenditure incurred should be capitalised or expensed. According to (Elliott and Elliot 2011:407) where it is probable that future economic benefit in excess of the originally assessed standard of performance of the existing asset will as a result of the expenditure flow to the entity the expenditure should be added to the carrying value of the existing asset. Everingham, Kleynhans and Posthumus (2007:191) note that normal maintenance costs should be written off in the same period as an expense. Once the asset is available for use, the accounting for depreciation must follow.

2.7 DEPRECIATION

As explained by Everingham and Watson (2005:8:5-8:6) depreciation is the systematic allocation of a depreciable amount of an asset over its useful life. Furthermore as citied by the authors, the Collins English Dictionary defines ‘systematic’ as ‘characterized by the use of order and planning; methodical.

This implies the use of a method that is determined rationally in advance and therefore rules out the practice, occasionally encountered in the past, of charging arbitrary amounts for depreciation. Depreciation is also an accounting procedure.

The concept of depreciation is not related to the physical ageing of the asset as it is merely a process of apportionment of cost and not a process of valuation (Van Vurren, Vorster, Myburgh and Fouche 2005:316).

Elliot and Elliott (2011:408) state that it is important to make clear what depreciation is **not**:

- It is not ‘saving up for a new one’; it is not setting funds aside for the replacement of the existing asset at the end of its life; it is the matching of cost to revenue. The effect is to reduce the profit available for distribution, but this is not accompanied by the setting aside of cash of an equal amount to ensure that liquid funds are available at the end of the asset’s life.
- It is not ‘a way of showing the real value of assets on the statement of financial position by reducing the cost figure to a realizable value.

Depreciation is currently conceived as a charge for funds already expended, and thus it cannot be considered as the setting aside of funds to meet future expenditure Elliot and Elliott (2011:408).

Everingham and Watson (2005:8:22) explain that depreciation is sometimes thought of as an amount set aside in order to provide for the replacement of the asset in question, thus introducing a capital maintenance concept. Regular charges against profits for depreciation based on historical costs will not ensure that sufficient cash is on hand to replace the asset in question at the end of its useful lifetime, because a book entry for depreciation does not generate cash as such, and in any event, cash flow is often unrelated to profits before or after depreciation.

Furthermore, it is the task of management to ensure that sufficient funds are available to provide for the replacement of fixed assets. To link the problem of asset replacement with depreciation is nothing more than a confusion of financial policy with accounting procedure.

Land usually has an unlimited life and is not depreciated. IAS16 states that the useful life of a building is not affected by an increase in the value of the land on which it stands. Knowing when to commence and stop depreciation is important for the depreciation calculation.

2.8 COMMENCEMENT OR CESSATION OF DEPRECIATION

International GAAP (2008:974) states that the standard is clear on when depreciation should start and finish, and sets out the requirements succinctly as follows:

- Depreciation of an asset begins when it is available for use, which is defined by the standard as occurring when the asset is in the location and condition necessary for it to be capable of operating in the manner intended by management. This is the point at which capitalization of costs relating to the asset cease.
- Depreciation of an asset ceases at the earlier of the date that the asset is classified as held for sale or included in a disposal group that is classified as held for sale in accordance with International Financial Reporting Standard (IFRS) 5 and the date that the asset is derecognized.

An entity therefore does not stop depreciating an asset merely because it has become idle or has been retired from use. The standard makes it clear that depreciation must be charged on all items of PPE even if the fair value of the asset at year-end is higher than the carrying amount, as long as the residual value of the item is lower than the carrying amount.

Therefore no depreciation will be provided for if the residual value is greater than or equal to the carrying amount of the asset until the residual value decreases to an amount below the carrying amount of the asset.

University assets are idle during vacation and recess periods and sometimes during examinations however these assets must still be depreciated. In order for depreciation to be calculated it is necessary to determine the following factors; cost, useful life and residual value.

2.9 FACTORS TO BE CONSIDERED IN CALCULATION OF DEPRECIATION

The factors to be considered in the calculation of depreciation are:

- cost
- useful life, and
- residual value

2.9.1 COST

Determining the cost of the asset has been stated earlier in this chapter, as the net purchase price.

2.9.2 USEFUL LIFE

Everingham and Watson (2005:8:26) state that the useful life of an asset is defined as either: the period over which an asset is expected to be available for use by the enterprise; or the number of production or similar units expected to be obtained from the asset by an entity.

Vorster (2007:204) explains that the useful life of an asset is defined in terms of the asset's expected utility to the entity, while the economic life of an asset refers to the total life of the asset, while in possession of one or more owners.
The asset management policy of an entity may involve the disposal of assets after a specified period or after the consumption of a certain portion of the economic benefits embodied in the asset prior to the asset reaching the end of its economic life.

2.9.2.1 Determining the useful life of an asset

SAICA (2009:1175) indicates that all the following factors are considered in determining the useful life of an asset:

- expected usage of the asset. Usage is assessed by reference to the asset's expected capacity or physical output;
- expected physical wear and tear, which depends on operational factors such as the number of shifts for which the asset is to be used and the repair and maintenance programme, and the care and maintenance of the asset while idle;
- technical or commercial obsolescence arising from changes or improvements in production, or from a change in the market demand for the product or service output of the asset; and
- legal or similar limits on the use of the asset, such as the expiry date of related leases.

The useful life of the asset may therefore be shorter than its economic life. An asset can be disposed when it still has a residual value implying that another user will benefit from it e.g. sale of a vehicle to a third party.

2.10 RESIDUAL VALUE

IAS16 stipulates that the residual value is an estimation of the amount that the entity would currently obtain from the disposal of the asset, less the estimated costs of disposal, if the asset were already of the age and in the condition expected at the end of its useful life.

This implies that the estimated residual value of an asset is based on the current value of the amount that the entity would recover from the asset's disposal, by taking into account the recoverable amounts achieved by similar assets that have operated under similar conditions to those in which the asset will be used. Lubbe, Modack and Watson (2011:86).

Pretorius *et al* (2011:161) note that the residual value of an asset is a current value which ignores the effect of future inflation and is often insignificant and therefore immaterial in the calculation of the depreciable amount. It is further noted that the residual value of an asset should be reviewed at least at each financial year-end and any change should be accounted for as a change in an accounting estimate.

Residual values are not recorded in the accounting records as they are used merely for calculation and can be affected by changes in technology and market conditions for the asset.

2.11 RECORDING OF DEPRECIATION

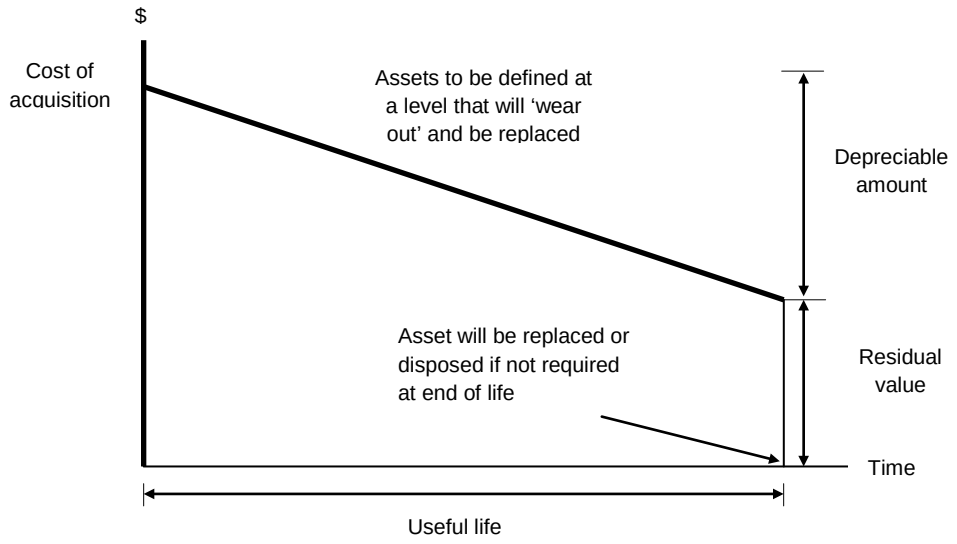
The accounting entry for recording depreciation is;

Dr Depreciation expense	xxx	
Cr Accumulated depreciation		xxx
Provision for depreciation for the year		

Dr Profit and loss account	xxx	
Cr Depreciation expense		xxx
Closing entry		

While depreciation expense is recorded in the income statement its impact is recorded separately in the balance sheet as accumulated depreciation. Accumulated depreciation is known as a contra account. Showing the accumulated depreciation separately on the balance sheet has the effect of preserving the historical cost of the assets.

The following diagram illustrates an asset that is recognised at its cost of acquisition with an estimated residual value and an estimated useful life.



Source: Howard, J., Hope, D. and Champion, C. (2006: 2)

2.12 DEPRECIATION METHODS

Pretorius et al (2011:163) state that a number of different methods of providing depreciation can be applied. IAS 16 (AC123) highlights the three more common methods of depreciation as the straight-line method, the diminishing or reducing balance method and the sum-of-the-units or units of production method. The straight line method and the diminishing balance method which is more commonly used is explained further.

2.12.1 Straight line method

When an asset is expected to be used evenly over its useful life, then the straight line method of depreciation is applied. In other words the depreciable amount will be written off in equal parts over the asset's useful life. The following example by the researcher illustrates the straight line method:

An asset is purchased for ZAR105 000.00 with an expected useful life of six years and a residual value of ZAR10 000.00.

Depreciation = cost - residual value /useful life

Depreciable amount = (ZAR105 000.00 - ZAR10 000.00) / 6

= ZAR15 000.00

The depreciation expense of the asset for six years will be ZAR15 000.00 per year.

2.12.2 Diminishing balance method

This method is also referred to as the reducing balance method. Kew and Watson (2010:353) state that we may expect an asset to generate more economic benefits in the beginning of its useful life than towards the end. Therefore more depreciation is recognized in the beginning of its useful life and a smaller portion towards the end of its useful life. Carey, Knowles and Clark (2011:58) concur and state that the depreciation expense is greatest in the first year of ownership and falls every year thereafter. The diminishing balance method assumes that the asset produces a smaller proportion of the total benefits the older it becomes.

The depreciation is calculated on the carrying amount of the asset. The carrying amount of the asset is the cost less the accumulated depreciation. The following example by the researcher illustrates the diminishing balance method:

An asset is purchased on 1 January 20x1 at a cost of ZAR900 000.00 with a ZAR90 000.00 residual value. The depreciation rate is 20% on the diminishing balance per year. The calculation is illustrated for the years; 20x1, 20x2, 20x3, 20x4.

Depreciation = carrying amount / depreciation rate

Depreciation 1 January 20x1 to 31 December 20x1		
ZAR900 000.00 x 20%	=	ZAR180 000.00

Note that the carrying amount at the beginning of the year is the cost as no depreciation has yet been charged.

Depreciation 1 January 20x2 to 31 December 20x2		
ZAR900 000.00 – ZAR180 000.00	=	ZAR720 000.00 x20%
	=	ZAR144 000.00

Depreciation 1 January 20x3 to 31 December 20x3		
ZAR900 000.00 – (ZAR180 000.00 + ZAR144 000.00) x20%		
	=	ZAR115 200.00

Depreciation 1 January 20x4 to 31 December 20x4		
ZAR900 000.00 – (ZAR180 000.00 +ZAR144 000.00 + ZAR115 200.00) x 20%		
	=	ZAR 92 160.00

Kew and Watson (2010:353) further state that we do not depreciate the asset to a zero value. The cost of the asset is not reduced by the residual value when calculating depreciation for this method, as the percentage depreciation and the estimated useful life over which the asset is depreciated will reduce the carrying value to the estimated residual value.

2.13 CHOICE OF DEPRECIATION

Elliott (2011:415-416) states that despite the theoretical attractiveness of the other methods, the straight line method is the one commonly used by entities to prepare financial statements in accordance with IFRS. Reasons for this are essentially pragmatic:

- it is most straight forward to compute
- in the light of the three additional subjective factors, (cost, residual value, useful life) that need to be estimated, any imperfections in the charge for depreciation caused by the choice of the straight line method are not likely to be significant; and
- it conforms to the accounting treatment adopted by peers.

2.14 DEPRECIATION OF COMPONENTS

Kolitz *et al* (2009:278) state that each part of an item of PPE with a cost that is significant in relation to the total cost of the item is required to be depreciated separately. Separate but significant parts of an item of property, plant and equipment may have the same useful life and depreciation method. Such parts are grouped together for depreciation purposes. Once the significant parts have been identified, the remainder of the non–significant parts is grouped together as a depreciable component.

The following example by Kolitz *et al* (2009:279) explains component depreciation:

On 1 July 20X6, Computer world purchased new business premises for ZAR10 000 000. The following components were identified:

Component	ZAR	Useful life and depreciation method
Building structure	6 500 000	Useful life of 40 years, depreciated using the straight line method
Other fittings (such as partitions and air conditioning system)	1 600 000	Useful life of 8 years, depreciated using the straight line method
Windows	1 000 000	Useful life of 10 years, depreciated using the straight line method
Lifts	900 000	Useful life of 10 years, depreciated using the diminishing balance method

The calculation of depreciation and carrying amount of the business for the year ended 31 December 20x7 will be as follows:

Component	Cost (ZAR)		Depreciation (ZAR)	Carrying amount (ZAR)
Building structure	6 500 000	(6 500 000 x 1/40)	162 500	6 337 500
Other fittings	1 600 000	(1 600 000 x1/8)	200 000	1 400 000
Windows	1 000 000	(1 000 000 x 1/10)	100 000	900 000
Lifts	900 000	(900 000-45 000) x 10%	85 500	814 500
Total	**10 000 000**		**548 000**	**9 452 500**

Each component is depreciated separately over its useful life using the specified depreciation method. Although the windows and lifts both have a useful life of ten years, they are not grouped together as an individual component as the depreciation methods are different. Note that the depreciation for the lifts is calculated based on the carrying amount of the asset at 1 January 20x7 which is reduced by the depreciation of ZAR45 000, for the six months ended
31 December 20x6.

2.15 REVIEW OF USEFUL LIFE AND RESIDUAL VALUES

The useful life and residual value of an asset needs to be reviewed at least annually and when changes occur in the circumstances on which the initial estimate was based. These reviews do not need to be completed at the end of the financial year, it can be reviewed during the financial year.

A review during the year will also aid in reducing the pressure related to stringent deadlines at year end.

2.16 FULLY DEPRECIATED ASSETS

According to Everingham and Watson (2005:8:30) an error in estimates or a change in circumstances may lead to a situation where assets which have been fully depreciated are still in use. This reflects a situation where a change in estimates should have been adjusted for previously, but the entity failed to do so, with a result that the asset has been excessively and prematurely depreciated. To this end it must be noted that such a situation is less likely to arise if the useful lives and residuals values are reviewed annually.

2.17 CHANGE IN THE METHOD OF DEPRECIATION

The depreciation method that is used needs to be reviewed at least once every financial year. Everingham and Watson (2005:8:25) state that if there has been a significant change in the expected pattern of economic benefits from the assets concerned, the method should be changed to reflect this. This type of change must be treated as a change in estimate and the depreciation expense/charge for the current and future financial years should be adjusted. As argued by Everingham and Watson (2005:8:26) an adjustment to opening retained income is unacceptable as there is neither a change in accounting policy nor a prior period error. A change in the depreciation method should therefore be treated as a change in estimate and not a change in policy.

2.18 DE-RECOGNITION (DISPOSALS)

Pretorius *et al.* (2010:177) state that an item of property, plant and equipment should be de-recognised upon disposal, or when no future economic benefits are expected from either its use or ultimate disposal. Even if the asset has a carrying amount of zero, its cost and accumulated depreciation should still be derecognised. The withdrawal of an asset from active use does not result in de-recognition unless the asset can no longer be used and cannot be sold either.

Lolitz, Quinn and McAllister (2009:281) state that the cost of an item of PPE and the related accumulated depreciation, of the asset must be eliminated from the statement of financial position on disposal of the asset. This is referred to as the de-recognition of the asset. Profits or losses on the disposal are determined as the difference between the proceeds on disposal and the carrying amount of the asset and are recognised as an income or expense on the income statement.

Proceeds on disposal	Less	Carrying Amount	=	Profit or Loss

The following four steps needs to be followed when de-recognising an item of property, plant and equipment:

- the cost is eliminated as an asset from the accounting records;
- the accumulated depreciation is eliminated as a provision from the accounting records;
- the proceeds on disposal are recorded; and
- the profit or loss on disposal is recorded.

2.19 ACCOUNTING FOR DE-RECOGNITION

The account known as the 'asset disposal account' in the general ledger is used for the recording of the transaction. This asset disposal account is a temporary account. The cost and accumulated depreciation of the asset is transferred to the asset disposal account as follows:

Dr Asset disposal	xxx	
Cr Asset account (cost)		xxx
Transfer of cost to asset disposal account		

Dr Accumulated depreciation	xxx	
Cr Asset disposal		xxx
Transfer of accumulated depreciation to asset disposal account		

Any proceeds received during the disposal must also be recorded in the asset disposal account as follows:

Dr Bank account	xxx	
Cr Asset disposal		xxx
Proceeds on disposal		

Thereafter, the asset disposal account is closed off by transferring the balance to the 'profit or loss on disposal account'. The asset disposal account will now

have a zero balance, as being temporary it is used to calculate the profit of loss on the disposal of the asset.

The following example illustrates the journal entries and the asset disposal account.

An asset was acquired on 1 July 20x1 at a cost price of ZAR200 000, and had an estimated useful life of 10 years. The residual value of the asset was zero and this asset was sold on 31 March 20x9 for an amount of ZAR100 000. The Financial year end is 31 December.

Dr Asset disposal	200 000.00	
Cr Asset account (cost)		200 000.00
Transfer of cost to asset disposal account		

Dr Accumulated depreciation	155 000.00	
Cr Asset disposal		155 000.00
Transfer of accumulated depreciation to asset disposal account		

Calculation of accumulated depreciation:

1 July 20x1-31 December 20x1 (ZAR200 000x10%)x 6/12

= ZAR10 000.00

1 January 20x2-31 December 20x8 (ZAR200 000x10%)x 7 years

= ZAR140 000.00

1 January 20x9-31 March 20x9 (ZAR200 000x10%)x 3/12

= ZAR5 000.00

TOTAL ACCUMULATED DEPRECIATION = ZAR155 000.00

Dr Bank account Cr Asset disposal *Proceeds on disposal*	100 000.00	 100 000.00
Dr Asset disposal Cr Profit of disposal *Profit on disposal*	55 000.00	 55 000.00

Extract of the Asset disposal account in the general ledger

Asset disposal account			
DEBIT		**CREDIT**	
Asset account	200 000.00	Accumulated depreciation	155 000.00
Profit on disposal	55 000.00	Bank	100 000.00
	255 000.00		**255 000.00**

It must be noted that an asset is not disposed only when it is sold but also when the asset is scrapped, obsolete, donated or even stolen.

2.20 IMPAIRMENT

An entity is required, in terms of IAS36, to conduct impairment tests for its assets to see whether it has incurred any impairment loss. The purpose of the impairment test is to ensure that the assets are not carried at amounts that exceed their recoverable amounts or, more simply, that assets are not overstated. An impairment loss as stated by Vorster, Koornhof, Oberholster, Koppeschaar, van Rensburg and Binnekade (2007:692) is the amount by which the carrying amount of an asset exceeds its recoverable amount.

The carrying amount is the amount at which an asset is recognised in the balance sheet after deducting and accumulated depreciation and any accumulated impairment losses (Everingham and Watson 2005:8:22). Melville (2008:114) defines the recoverable amount of an asset as the higher of its fair value less costs to sell and its value in use, where the fair value less costs to sell is the amount obtainable from the sale of an asset in an arm's length transaction between knowledge, willing parties, less the costs of disposal Vorster *et al* (2007:692). Value in use is the present value of the future cash flows expected to be derived from an asset or cash-generating unit (Melville 2008:114).

2.21 INDICATORS FOR IMPAIRMENT

According to SAICA (2009:1796) IAS36 requires that an entity shall assess at the end of each reporting period whether there is any indication that an asset may be impaired. It is not necessary for an entity to test each asset at each reporting date for impairment. The only assets that need to be tested are those where there is an indication that the assets may be impaired Lube, Modack and Watson (2011:240). According to Elliot (2011:419-420) the following are external and internal indicators of impairment:

2.21.1 External indicators

- a fall in the market value of the asset
- material adverse changes in regulatory environment
- material adverse changes in markets
- material long term increases in market rates of return used for discounting.

2.21.2 Internal indicators

- material changes in operations
- major reorganisation
- loss of key personnel
- loss or net cash outflow from operating activities if this is expected to continue or is a continuation of a loss making situation.

The above list is not exhaustive as an entity may identify other indicators that will be accepted as impairment. An example is a building that has been partially damaged by fire. The portion of the building damaged by fire must be established and the building impaired.

2.22 DISCLOSURE AND FINANCIAL REPORTING

Prior to the preparation of financial statements, the concept and vale of materiality needs to be examined.

2.22.1 Materiality

Davies and Aston (2011:110) state that materiality is one of the fundamental concepts of auditing. Materiality recognises the importance of a true and fair value of the financial statements in accordance with established standards.

According to Hanks (2011), Information is material if its omission or misstatement could influence the economic decisions of users taken on the basis of the financial statements. Materiality depends on the size of the item or error judged in the particular circumstances of its omission or misstatement.

Thus, materiality provides a threshold or cut-off point rather than being a primary qualitative characteristic which information must have if it is to be useful. International Financial Reporting Standards (IFRS).

The importance of materiality as discussed by Davies and Aston (2011:111) is that it gives a level by which accounts can be in error without distorting the overall true and fair value. It influences decisions on the scope and the extent of the audit work along with identifying action where errors are found.

Terry (2010) sates that the concept of materiality has been applied in financial reporting and auditing for many years. Accounting is not an exact science and therefore judgment is necessary in determining values of many transactions, assets and liabilities. Where judgment is applied, there needs to be some level of tolerance.

The accounting Dictionary defines materiality as magnitude of an omission or misstatement of accounting data that misleads financial statement readers. Materiality is judged both by relative amount and by the nature of the item (Terry 2010).

Determining what constitutes material for the purposes of financial reporting is relatively simple, since it is expressed in financial terms. It is generally calculated as a percentage of profit or pre-tax income, generally 5%, although standard – setters have been reluctant to issue definitive guidelines. It could also be calculated as a percentage of some other item or items in the financial statements, such as turnover or assets.

2.23 CONTENTS OF FINANCIAL STATEMENTS

Lubbe *et al*. (2011:48) states that a complete set of financial statements comprises a statement of:

- financial position as at the end of the period (previously know as a balance sheet);
- comprehensive income for the period (replaced the income statement and includes more items);
- changes in equity for the period;
- cash flows for the period;
- financial position as at the beginning of the earliest comparative period when an entity applies an accounting policy retrospectively or makes a retrospective restatement of items in its financial statements, or when it reclassifies in its financial statements; and
- notes, comprising a summary of significant accounting policies and other explanatory information.

The new titles for statements included in the financial statements were introduced in the revised IAS1 issued in September 2007. The use of these titles is not mandatory, and an entity may use other titles for the statements, as long as their purpose is clearly identified.

It is worth making clear at this point three essential facts;

- the responsibility for the preparation and accuracy of the financial statements rest with the management of the business
- the responsibility for ensuring that the systems of internal control exist rests with management
- the auditor does not seek to uncover all fraud and error .

However, the auditor is expected to carry out tests of the records supporting the financial statements in such a manner that there is a reasonable expectation of uncovering a major fraud or error, should either exist (Davies and Aston, 2011:2)

2.24 STATEMENT OF FINANCIAL POSITION AND DISCLOSURE

As explained by Lubbe *et al (*2011:48) one of the financial reports an entity has to prepare as part of its financial statements is the statement of financial position previously called a balance sheet. The statement of financial position presents information about the status of the entity's main financial indicators, thereby helping users to assess the financial position of the entity on a particular day, the reporting date. The financial indicators included in the statement of financial position are the entity's net asset value, the liquidity of the entity, the solvency of the entity and, to some extent, its financial risk.

Lubbe *et al. (*2011:48) state that it is important to remember that a statement of financial position is a reflection of the carrying amount of assets and liabilities at a specific moment in time, and that those values at that date may vary significantly from any other date, owing to factors such as the deterioration of the asset, the changes in markets, or any other unforeseen event. The elements of financial statements as identified by Pretorius *et al*. (2011:07) are assets, liabilities, equity, income and expenses.

Lubbe *et al.* (2011:48) state that the assets, liabilities and equity that are summarized on the face of the statement of financial position are referred to as the line items and it should, as a minimum, include the following:

- Property, plant and equipment
- Investment property
- Intangible assets
- Financial assets
- Investments accounted for using the equity method
- Biological assets
- Inventories
- Trade and other receivables
- Cash and cash equivalents
- Total assets classified as held for sale included in disposal groups
- Trade and other payables
- Provisions
- Financial liabilities
- Liabilities and assets for current tax
- Deferred tax liabilities and deferred tax assets
- Liabilities included in disposal groups classified as held for sale
- Non-controlling interest, presented within equity, and
- Issued capital and reserves attributable to owners of the parent.

Any additional line items should be added to the statement of financial position, and an entity should make use of headings and subtotals in order to present the information in such a way that it is relevant to an understanding of the entity's financial position.

According to Pretorius *et al.* (2011:20) an entity makes the judgment about whether to present additional items separately on the basis of assessment of the nature and liquidity of assets, the function of assets within the entity and the amounts, nature and timing of liabilities.

The following example is an extract from the Higher Education Conference (2011):

EXAMPLE UNIVERSITY

NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2010

Property, plant and equipment

	Land	Buildings	Furniture, fittings and office equipment	Machinery and implements	Computer equipment	Motor vehicles	Library books and journals	Total
At 1 January 2009								
Cost	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Accumulated depreciation	(xxx)	(xxx)	(xxx)	(xxx)	(xxx)	(xxx)	(xxx)	(xxx)
Net book amount	**xxx**	**xxx**	**xxx**	**xxx**	**xxx**	**xxx**	**0**	**xxx**
Year ended 31 December 2009								
Opening net book amount	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Additions	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Disposals/write-offs	(xxx)	(xxx)	(xxx)	(xxx)	(xxx)	(xxx)	(xxx)	(xxx)
Depreciation charge	(xxx)	(xxx)	(xxx)	(xxx)	(xxx)	(xxx)	(xxx)	(xxx)
Closing net book amount	**xxx**	**xxx**	**xxx**	**xxx**	**xxx**	**xxx**	**0**	**xxx**
At 31 December 2009								
Cost	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Accumulated depreciation	(xxx)	(xxx)	(xxx)	(xxx)	(xxx)	(xxx)	(xxx)	(xxx)
Net book amount	**xxx**	**xxx**	**xxx**	**xxx**	**xxx**	**xxx**	**0**	**xxx**
Year ended 31 December 2010								
Opening net book amount	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Additions	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Disposals/write-offs	(xxx)	(xxx)	(xxx)	(xxx)	(xxx)	(xxx)	(xxx)	(xxx)
Depreciation charge	(xxx)	(xxx)	(xxx)	(xxx)	(xxx)	(xxx)	(xxx)	(xxx)
Closing net book amount	**xxx**	**xxx**	**xxx**	**xxx**	**xxx**	**xxx**	**0**	**xxx**
At 31 December 2010								
Cost	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Accumulated depreciation	(xxx)	(xxx)	(xxx)	(xxx)	(xxx)	(xxx)	(xxx)	(xxx)
Net book amount	**xxx**	**xxx**	**xxx**	**xxx**	**xxx**	**xxx**	**0**	**xxx**

A complete schedule of land and buildings is available at the administration building of the Example University
Bank borrowings are secured on land and buildings for the value of Rxxx (2009: Rxxx)
Vehicles and machinery includes the following amounts where the University is a lessee under a finance lease:

	2010	2009
Cost - capitalised finance lease	xxx	xxx
Accumulated depreciation	(xxx)	(xxx)
Net book amount	**xxx**	**xxx**

The University leases various vehicles and machinery under non-cancellable lease agreements.
These lease terms are between three and fifteen years, and ownerships of the lease lie within the University.

Buildings to the amount Rxxx (2009: Rxxx) (included above) were erected on land belonging to the Gauteng Administration.

Included in land and buildings is expenditure of Rxxx (2009: Rxxx) which relates to property that is still under construction.

2.24.1 Property, plant and equipment

Land and buildings comprise mainly of lecture halls and facilities, workshops, student residences and administrative offices. Property, plant and equipment is stated at historical cost less accumulated depreciation. Historical costs include expenditure that is directly attributable to the acquisition of the items.

Property, plant and equipment items are capitalized if the life expectancy of an item is more than one year and the cost thereof exceeds ZAR1 000. Property, plant and equipment acquired by means of donations are recorded at fair value at the date of the donation.

Subsequent costs are included in the asset's carrying amount or recognized as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the University and the cost of the item can be measured reliably. The carrying amount of the replaced part is derecognized. All other repairs and maintenance are charged to the income statement during the financial period in which they are incurred.

Land is not depreciated. Depreciation on other assets is calculated using the straight line method to allocate their cost or re-valued amounts to their residual values over their estimated useful lives. Depreciation is charged to profit and loss for the period.

The depreciation rates are as follows:

Buildings	x% or 20-50 years
Furniture, fittings and office equipment	x% or 3-20 years
Machinery and implements	x% or 5-15 years
Motor vehicles	x% or 3-8 years
Computer equipment	x% or 3-5 years

Library items are depreciated in full in the year of acquisition.

The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at the end of each reporting period.

An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount.

Gains and losses on disposals are determined by comparing the proceeds with the carrying amount and are recognized within 'other (losses)/gains-net' in the income statement.

2.25 SUMMARY

This chapter reviewed literature around the recording and reporting of PPE; GAAP; IFRS; and analysed related literature in finance. The review shows that universities are faced with many complex situations when determining the accounting treatment for assets. The next chapter discusses the research methodology used in the study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 INTRODUCTION

The previous chapter presented an analysis of literature pertinent to this study. This chapter discusses the research aim and objectives, research design, and research process followed by sampling, data collection and data analysis. To achieve the objectives (explained in Chapter one) of this study, suitable types of research were required, it was therefore necessary to employ a suitable research design.

3.1 RESEARCH DESIGN

A research design provides the basic directions or recipe for carrying out the research project (Hair, Babin, Money and Samouel 2003:57). Creswell (2009:3) concurs that research designs are plans and the procedures for research that span the decisions from broad assumptions to detailed methods of data collection and analysis and this author also indicates that there are three types of research design namely quantitative, qualitative, and mixed methods.

3.1.1 Quantitative research

Collis and Hussey (2003:13) explain quantitative research as objective in nature. They explain that quantitative research concentrates on measuring phenomena that involves collecting and analysing numerical data and applying statistical tests. This type of research concerns things that can be counted and uses statistics to process and explain data and to summarise findings.

‘Quantitative’ is predominantly used as a synonym for any data collection technique such as a questionnaire or data analysis procedures such as graphs or statistics that generate or use numerical data (Saunders, Lewis and Thornhill, 2009:151).

3.1.2 Qualitative research

According to Bayat and Fox (2007:7), qualitative research methods are designed to scientifically explain events, people and a matter associated with them and does not depend on numerical data, although it may make use of quantitative methods and techniques. Ghauri, Gronhaug and Kristianslund (1995:84) add that qualitative research is a mixture of the rational, explorative and intuitive where the skills and experience of the researcher play an important role in the analysis of data.

3.1.3 Mixed methods research

A mixed methods approach is where the researcher employs research design that uses both quantitative and qualitative data to answer a particular question or set of question (Hesse-Biber 2010:3) either at the same time or one after the other (Saunders *et al*, 2009:152-153). This means that quantitative data are analysed quantitatively and qualitative data are anaylsed qualitatively. In addition, often either quantitative or qualitative techniques procedures predominate.

3.2 RESEARCH PROCESS

Weirich, Pearson and Churyk (2010:10) state that the research process in general is often defined as a scientific method of inquiry and a systematic study of a particular field of knowledge in order to discover scientific facts or principles. They add that research encompasses the following process: investigate and analyse a clearly defined issue or problem; use an appropriate scientific approach; gather and document adequate and representative evidence; employ logical reasoning in drawing conclusions; and support the validity or reasonableness of the conclusions.

They further define accounting, auditing or tax research as a systematic and logical approach employing critical thinking skills to obtain and document evidence underlying a conclusion relating to an accounting, auditing or tax issue or problem.

3.3 TARGET POPULATION

Defining the target population for the study is critical in order to achieve the research objectives. Sekaran and Bougie (2010:196) refers to population as the entire group of people, events, or things of interest that the researcher wishes to investigate.

The target population for this study was the 23 public higher education institutions and their auditors in South Africa. Muijs (2011:33) explains that the population is a group that you would generalize your findings to and also notes that it is important to be clear as to what your population is as this will determine whom you are going to sample.

3.4 SAMPLING

Some populations are large and it is therefore unlikely that all of the units in the population can be included because of the considerable time and costs that such an exercise would entail (Bryman and Cramer, 2009:120). Therefore a sample may need to be selected. Sekaran and Bougie (2010:263) define a sample as a subgroup or subset of the population. By studying the sample, the researcher is able to draw conclusions that are generalisable to the population of interest.

3.4.1 Sampling process

Sekaran and Bougie (2010:266) assert that sampling is a process of selecting a sufficient number of right elements from the population so that a study of the sample and an understanding of its properties and characteristics make it possible for us to generalise such properties or characteristics to the population elements. The major steps in sampling include: define the population; determine the sample frame; determine the sampling design; determine the appropriate sample size; and execute the sampling process.

When the total population is small, it is normal to collect data about each member of the population (Collis and Hussey 2003:66). Since the population for this study numbered 23, there was no need to select a sample. As different job titles are used for persons responsible for the management of assets at the various institutions, they are referred to here as ‘person/s’. Regardless of their titles, they formed part of the study if they were responsible for assets or asset management at their institution.

Data was collected from the person/s responsible for the management of assets at each of the 23 PHEIs in South Africa. Five external auditing firms that audited PHEIs as at November 2011 were also selected to participate in this study.

3.5 DATA COLLECTION INSTRUMENTS

3.5.1 Primary and secondary data

According to Sekaran (2003:219), primary data refers to information obtained first hand by the researcher on the variables of interest for the specific purpose of the study. Riley, Wood, Clark, Wilkie and Szivas (2000: 107) state that secondary data is data that has been collected, collated and analysed by others. Sekaran and Bougie (2010:184) concur that secondary data refers to information gathered by someone else other than the researcher conducting the research. Such data can be internal or external to the organization and accessed through the internet or perusal of recorded or published information. Primary data in this study was obtained from questionnaires and semi-structured interviews.

3.6 QUESTIONNAIRE

A questionnaire can be regarded as a set of questions used for the gathering of information from individuals. Sekaran and Bougie (2010:197) explain that a questionnaire is a pre-formulated set of questions where respondents record their answers, usually within rather closely defined alternatives. They add that questionnaires are an efficient data collection mechanism when the researcher knows exactly what is required and how to measure the variables of interest.

McMillan and Schumacher (2006:104) further explain that the questionnaire is the most widely used technique for obtaining information from subjects as a questionnaire is relatively economical, has the same questions for all subjects, and can ensure anonymity.

Wilson (2010:148) states that the advantages of using a questionnaire are that they: allow you to obtain accurate information; provide a cost-effective and reliable means of gathering feedback that can be qualitative as well as quantitative; and they provide accurate and relevant data through thoughtful design, testing and detailed administration.

The disadvantages of a questionnaire as identified by Sekaran and Bougie (2010:212) are as follows: the response is generally low, a 30% rate is quite acceptable; respondents cannot clarify questions that may be confusing; and follow-up procedures for non-responses are necessary. It is therefore important that the questionnaire is properly designed.

3.6.1 Design and layout of questionnaire

This study followed the guidelines of the Evaluation Research Team (2008:1-2) who advocated the following in terms of the planning and development of the questionnaire:

- define your objectives;
- select the number and type of participants for your questionnaire;
- develop questions that clearly communicate what you want to know;
- decide when to use closed ended versus open ended questions
- include demographic questions;
- place questions in a logical order that flows; and
- pilot test the questionnaire.

The questionnaire for the asset managers was made up of two sections:

- Section A required the name, designation and contact details of the respondent and the name of the institution. The respondents were informed that this page would be removed before the questionnaire was sent for analysis.

- Section B of the questionnaire had 17 questions pertaining to the accounting treatment of PPE. Questions one, two and three provided pre-determined alternatives and also allowed for the respondents to insert additional information. Questions four to six contained a tick box requiring a 'yes' or 'no' answer was required together with a reason. For question seven, a table of various alternatives was provided for respondents to identify. From questions eight to sixteen, alternatives were provided to respondents with a request for reason/s. The last question allowed each respondent to provide any other comments.

The questionnaire used mainly closed questions but open-ended questions were also used where respondents were required to provide explanations or additional details. The questionnaire to the auditors comprised only closed questions.

3.6.1.1 Closed questions and open-ended questions

Closed questions are when the respondents have to choose from a limited number of potential answers (Wilson 2010:154). When questions are worded in a way that requires a narrative response, they are known as open-ended questions (Treiman 2009:03). The advantage of open-ended questions according to (Wilson 2010:154), is that it allows the respondents to provide an answer that is not restricted to a select view.

3.6.2 Administration of the questionnaire

In order to collect the required data, the questionnaire was presented and explained to the delegates attending the Asset Management Forum Southern Africa (AMF-SA) (2010) held in Cape Town in September 2010 as this Forum comprises individuals responsible for asset management at all public higher education institutions in South Africa. The researcher obtained permission from the Forum before administering the questionnaire to the delegates at the 2010 Conference. Institutions that were not present at the conference were contacted as well. In order to ensure that an adequate response rate was received, the researcher communicated to the participants the value of the study, the purpose of the questionnaire, and how the results could assist all PHEIs.

Questionnaires were distributed to the following universities:

REGION	NAME OF INSTITUTION
Eastern Cape Public Higher Education Institutions	Nelson Mandela Metropolitan University Rhodes University University of Forte Hare Walter Sisulu University
Free State Public Higher Education Institutions	Central University of Technology University of the Free State
Gauteng Public Higher Education Institutions	Tshwane University of Technology University of Johannesburg University of Pretoria University of South Africa Vaal University of Technology University of the Witwatersrand
KwaZulu Natal Public Higher Education Institutions	Durban University of Technology Mangosuthu University of Technology University of Kwazulu-Natal University of Zululand

REGION	NAME OF INSTITUTION
Limpopo Public Higher Education Institutions	University of Limpopo University of Venda
North West Public Higher Education Institution	North-West University
Western Cape Public Higher Education Institutions	Cape Peninsula University of Technology University of Cape Town University of Stellenbosch University of Western Cape

Both questionnaires contained a Covering Letter and a Letter of Informed Consent (*Appendices A and B*). The participants were assured of their anonymity and confidentiality and they were requested to sign the Letter of Informed Consent which explained the aim and ethical considerations pertaining to the study.

3.7 SEMI-STRUCTURED INTERVIEWS

Semi-structured interviews allow the researcher to exercise control or initiative in following up a respondents answer to the question (Hair *et al.* 2003:135). In instances where answers on the questionnaire were not clear or more information was required, the researcher contacted the relevant respondents telephonically or *via* electronic mail to gather information only on the affected questions. Prior to the administration of the data collection instruments, a pilot study was conducted.

3.8 PILOT STUDY

A pilot study involves the pre-testing of the data collection instrument. According to Bayat and Fox (2007:102), the pilot study is a trail run done on a small scale to determine whether the research design and methodology are relative and effective. Aaker, Kumar and Day (2007:333) add that the purpose of a pre-test is to ensure that the questionnaire meets the researcher's expectations in terms of the information that will be obtained.

For the purpose of this study, five respondents participating in this study were randomly selected to test the questionnaire so that the necessary revisions could be made before administration of the questionnaire. Each pilot questionnaire was reviewed to ensure that the respondents understood the questions. Thereafter each respondent was contacted telephonically to ascertain how long it took them to complete the questionnaire, to find out if any of the questions were unclear, and whether the respondents felt uneasy in answering any of the questions.

The questionnaire was then revised to ensure that there was no ambiguity or bias in the questions and instructions. Pilot testing also enabled the researcher to obtain an assessment of the questionnaire's reliability and validity.

3.9 RELIABILITY AND VALIDITY

3.9.1 Reliability

Sekaran and Bougie (2010:161) state that the reliability of a measure indicates the extent to which it is without bias (error free) and hence ensures consistent measurement across time and across the various items in the instrument.

In other words, the reliability of a measure is an indication of the stability and consistency with which the instrument measures the concept and helps to access the ‘goodness” of a measure.

In addition, Saunders, Lewis and Thornhill (2009:156) refer to reliability as the extent to which your data collection techniques or analysis procedures will yield consistent findings. They add that if a research finding can be repeated, it is reliable. Collis and Hussey (2003: 58) concur that if you or anyone else were to repeat the research you or they should be able to obtain the same results. The reliability of a measure refers to its consistency (Bryman and Cramer, 2009:76). If a measure is not reliable then it cannot be valid and if it is reliable then it may or may not be valid. To address reliability in this study therefore, the data collection instruments were carefully structured to answer the research questions.

3.9.2 Validity

Validity refers to the quality of the data which needs to be precise enough for the purpose of the research and they need to be sufficiently detailed (Denscombe 2010:106). Validity is whether your measuring instrument actually measures what you intended to measure (Riley *et al*., (2000: 126). They add that the concern is not whether there is error but rather what potential there is for error and what the researcher has done to reduce error in the study thus increasing the validity and reliability of the findings. To ensure validity in this study, the questionnaires were pilot tested on a pre-determined percentage of the target population to ensure that the questions asked directly addressed the research aim and objectives.

3.10 DATA ANALYSIS

The questionnaires were analysed using version 20.0 of the Statistical package for Social Scientists (SPSS). Data gathered from the semi-structured interviews were transcribed verbatim and analysed. A cross-tabulation of question two and three was applied. Cross-tabulation is a technique for comparing two classification variables by using tables having rows and columns that correspond to the levels or values of each variable's categories (Cooper and Schindler, 2003:505).

3.11 SUMMARY

This chapter discussed the research methodology, approach and design used in this study. In order to ensure reliability and validity in this study, information gathered was directly related to the objectives of the study. Questionnaires were electronically or personally administered and collected.

Chapter four presents the analysis of the questionnaires and semi-structured interviews.

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION OF RESULTS

4.0 INTRODUCTION

In the previous chapter the research methodology, aims and objectives, the data collection process and instruments used in the research were discussed. This chapter presents the results and discusses the findings obtained from the questionnaire in this study. The data collected from the responses were analysed using the Statistical Package for Social Science (SPSS) version 20.0. The results are presented in the form of graphs, cross tabulations and other figures. The analysis of data entailed the use of descriptive analysis in the form of frequencies.

The descriptive statistics, that is frequencies and percentages, provide an overview of the results and are illustrated by bar charts and pie charts. According to Malhotra and Birks (2006: 448), a frequency distribution refers to a mathematical distribution whose objective is to obtain a count of the number of responses associated with different values of one variable and to express these counts in percentage terms. A frequency table was used as it is easy to read and provides basic information. The graphs presented in this section were extracted from Microsoft Excel. The findings are presented as follows: the results are presented first with discussion at the end of each section.

4.1 RESPONSE RATE

In keeping with Sekaran and Bougie's (2010:212) recommendations that questionnaires could result in almost 100% response rate, questionnaires in this study were personally administered by the researcher to the persons responsible for asset management at the 23 universities in South Africa. A high response rate of 78 % (18) was achieved.

Figure 4.1 Response rate of Questionnaires (n=18)

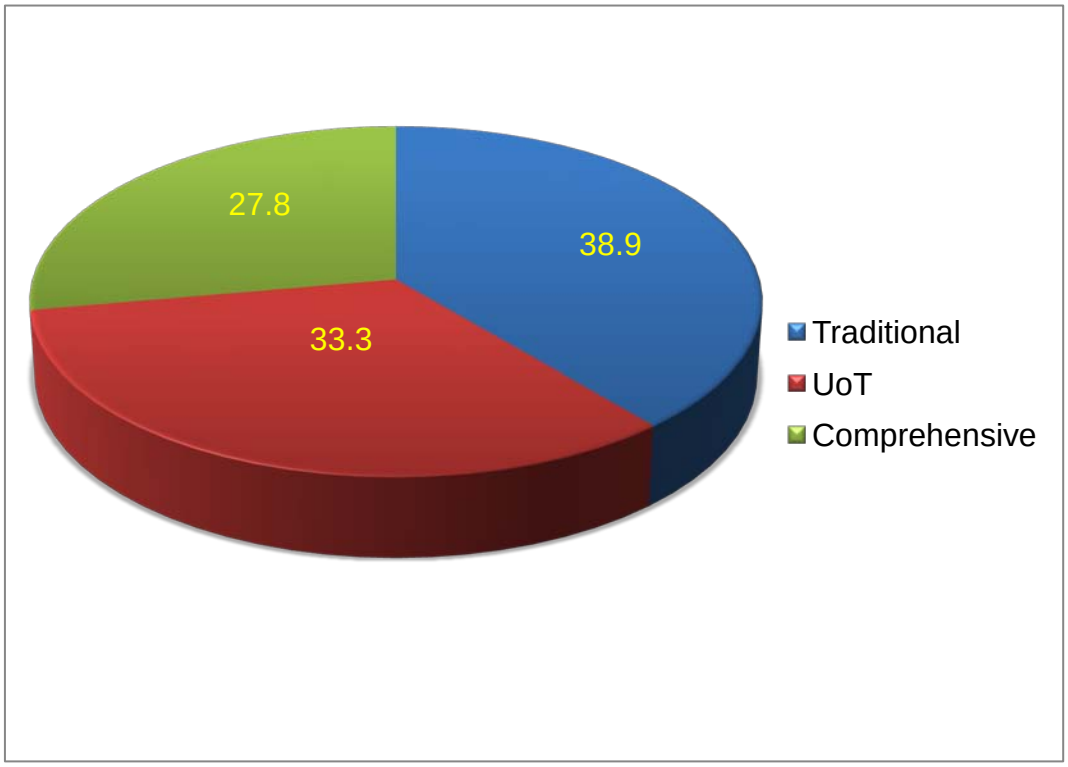


Figure 4.1 illustrates that one third (33.3%) of the respondents were from Universities of Technology (UoTs), while 38.9% were from traditional universities. The remaining respondents (27.8%) were from comprehensive universities. Where responses were slow, follow-up phone calls and emails helped as a reminder to those who had not responded.

Questionnaires to the five Auditing companies were emailed to the Audit managers. Unfortunately, even after several telephonic and email reminders, no responses were received.

4.2 ASSET CLASS AND USEFUL LIFE

Question one required the respondents to identify the asset classes and the useful life allocated to assets at their institution. Barden, Hall, Poole and Rigelsford (2011:409) explain that a class of property, plant and equipment is defined as a grouping of assets of a similar nature and use in an entity's operations. According to The International Financial Reporting Group of Ernest and Young (2012:1304), IAS16 suggests that the following are examples of separate classes of assets: land, land and buildings, machinery, ships, aircrafts, motor vehicles, furniture and fixtures and office equipment. Barden *et al.* (2011:421) add that the useful life of an asset is defined as the period over which an asset is expected to be available for use by an entity.

The asset classes in Figures 4.2 to 4.9 were pre-determined by the researcher following: a review of Financial Statements of the various Institutions that participated in this research; and through his interactions with the individuals responsible for the management of assets in South African higher education institutions at the Asset Management Forum Southern Africa, conferences.

The responses regarding common asset classes are presented below.

4.2.1 Buildings

Figure 4.2 Useful life of Buildings (n = 18)

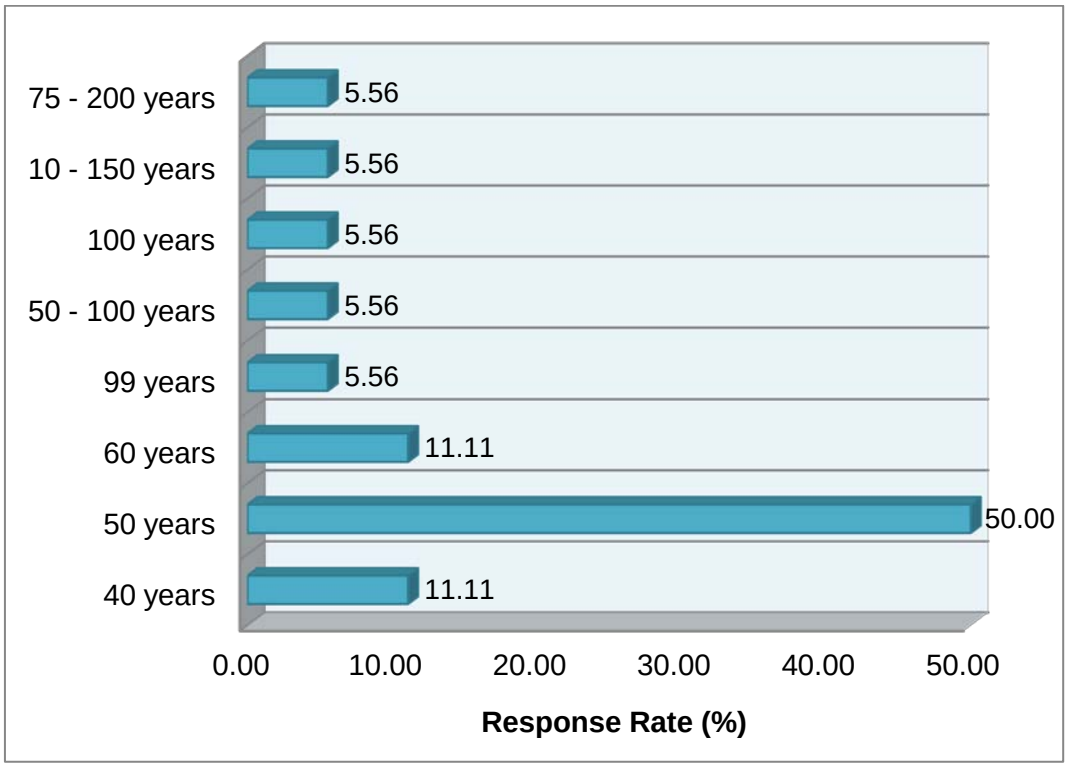
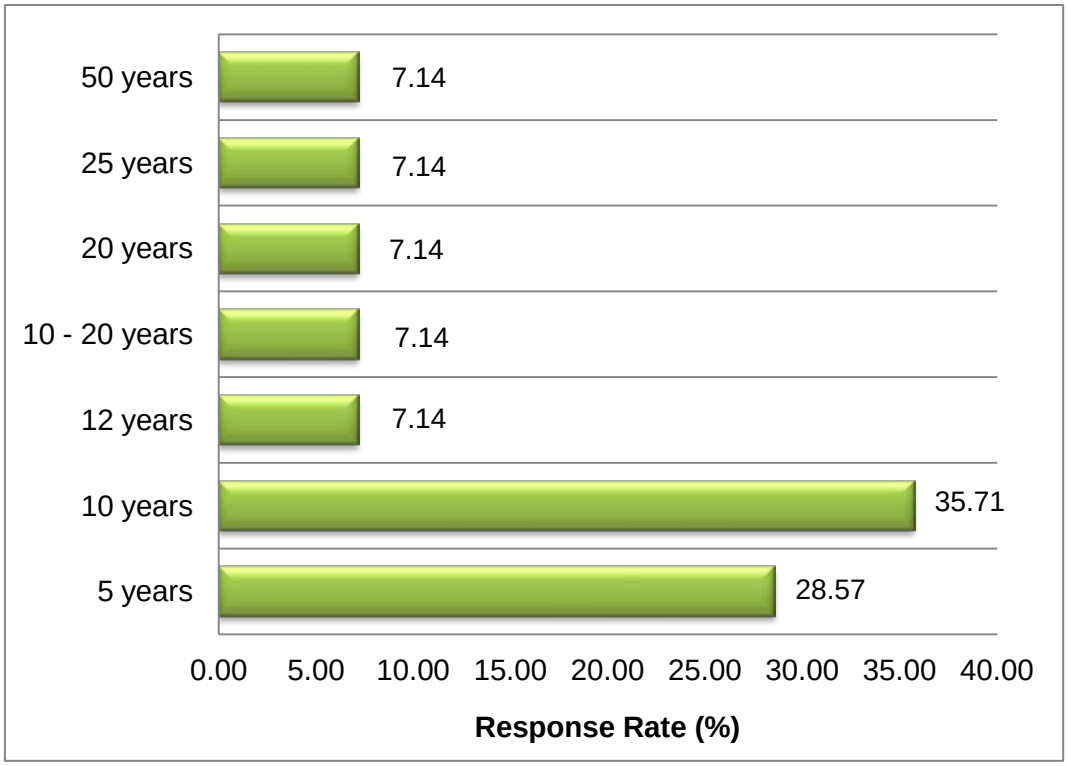


Figure 4.2 illustrates that all respondents selected buildings as an asset class. The useful life of buildings varied from 40 to 200 years and half (50%) of the respondents commonly apply a useful life of 50 years. A further 5.6% each apply a useful life of 99, 50 – 100, 100, 10 – 150 and 75 – 200 years respectively. The remaining 11.11% each apply 40 and 60 years respectively. The use of a range for useful life is applied by 16.68% of the institutions. This implies that the buildings in these institutions have different useful life.

4.2.2 Air conditioners

In figure 4.3, 78.8% of the respondents had selected air conditioners as an asset class at their institution and the useful life varied from 5 to 50 years. A little more than one third (35.71%) of the respondents commonly use 10 years as a useful life whilst a useful life of 5 years is commonly used by 28.57%. An equal percentage of 7.14% each apply a useful life of 12, 10 – 12, 20, 25 and 50 years respectively.

Figure 4.3 Useful life of Air conditioners (n = 18)



4.2.3 Lifts

Figure 4.4 Useful life of Lifts (n = 18)

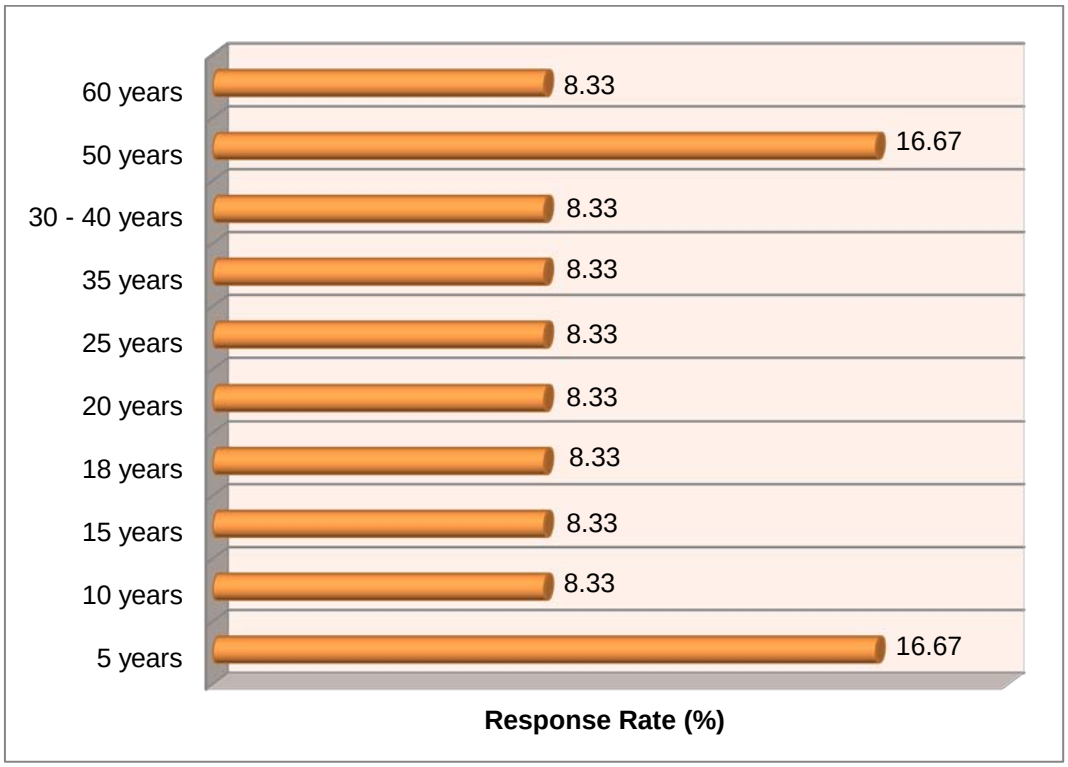


Figure 4.4 shows the responses to lifts as an asset class to which two thirds (66.6%) of the respondents had selected. A span from 5 to 60 years was identified as a useful life. An equal percentage of 16.7% of the respondents each apply 5 and 50 years respectively as a useful life. The balance of 8.33% each applies 10, 15, 18, 20, 25, 30-40, 35 and 60 years respectively.

4.2.4 Escalators

Figure 4.5 Useful life of Escalators (n = 18)

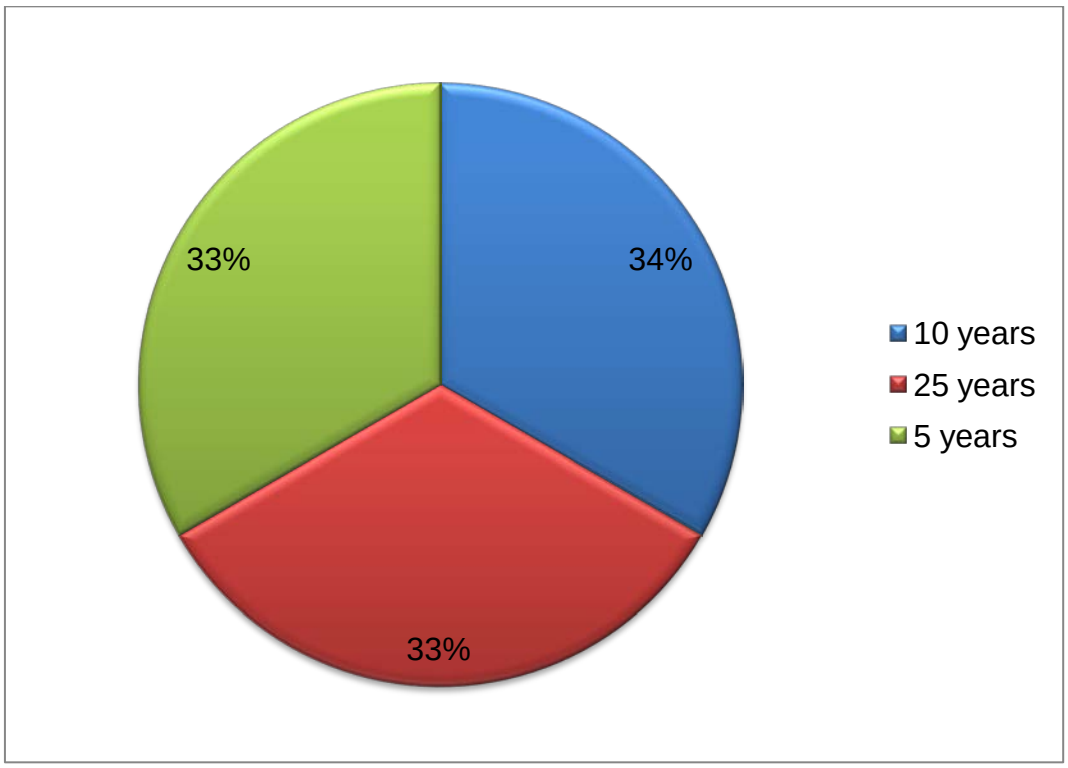
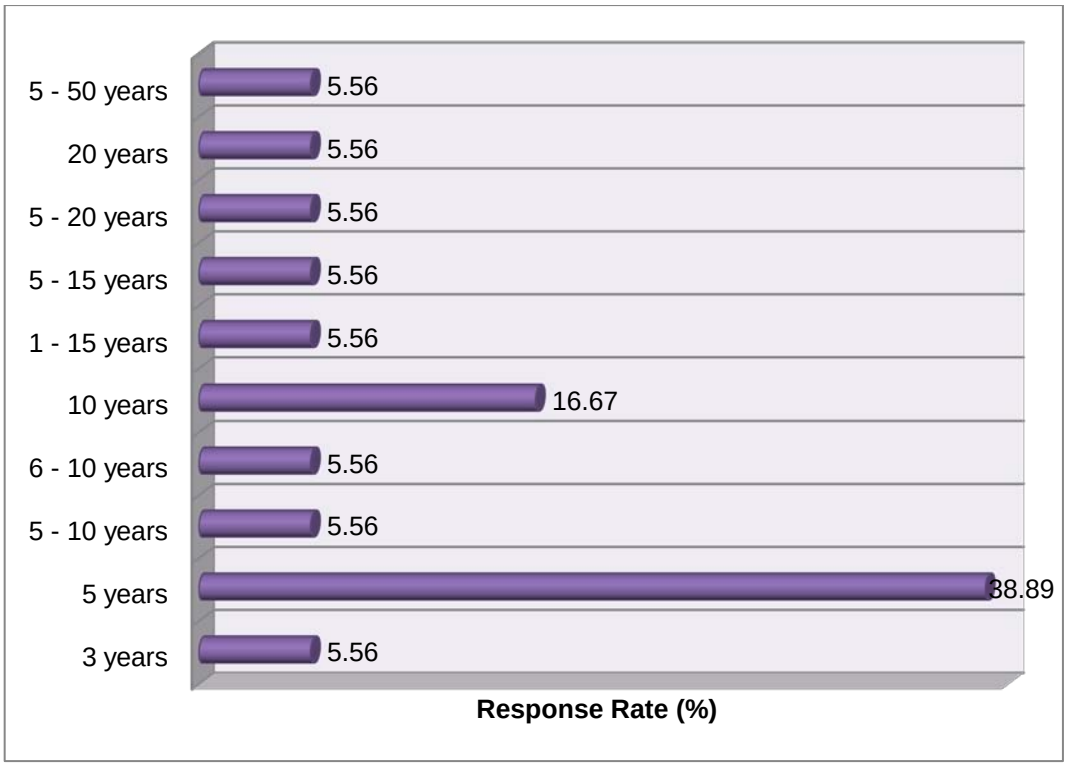


Figure 4.5 represents the responses to escalators as an asset class. A low response rate of 16.67% was received. This may be attributed to institutions not having escalators. A useful life of 5, 10 and 20 years is applied equally (33.3%) per institution.

4.2.5 Furniture

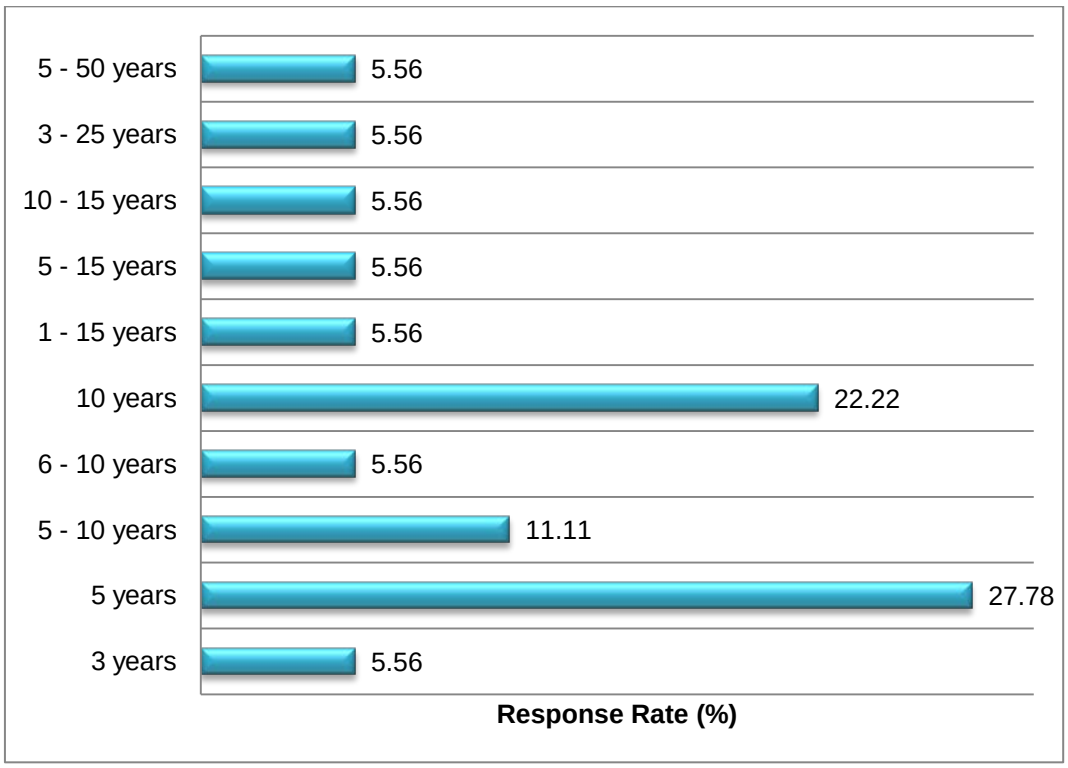
All of the respondents selected furniture as an asset class at their institution. Figure 4.6 illustrates that an equal percentage (5.6%) each have a useful life of 1-15, 3, 5-10, 5-15, 5-20, 5-50, 6-10 and 20 years respectively. The useful life varied from 1 to 20 years. In some instances institutions have a defined range for a useful life (33.36%). The most commonly used useful life of 5 years is applied by 38.89%, whilst 16.67% apply 10 years as a useful life.

Figure 4.6 Useful life of Furniture (n = 18)



4.2.6 Equipment

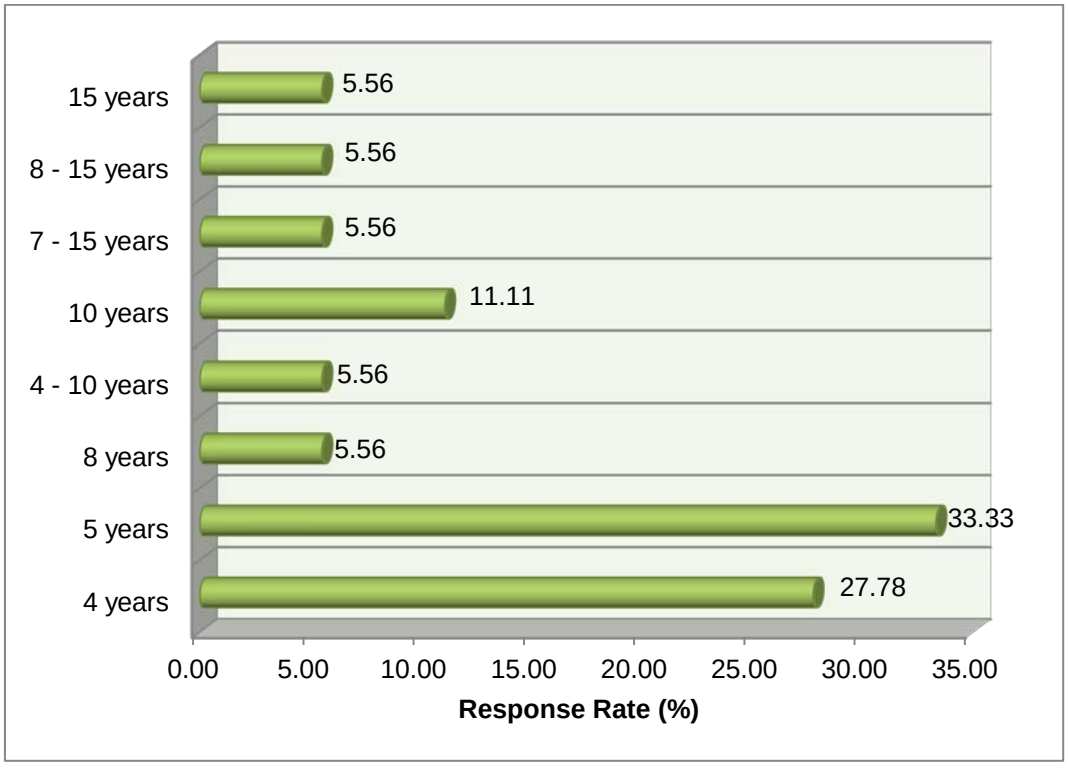
Figure 4.7 Useful life of Equipment (n = 18)



Equipment was selected by all respondents as an asset class. In figure 4.7 the useful life varied from 1 to 50 years. A range is applied by some institutions (44.48%). A useful life of 5 years is applied by 27.78% and 22.22% apply a useful life of 10 years. The useful life range of 5-10 years is applied by 11.11%. The remainder of 5.6% each apply a useful life of 3, 6-10,1-15, 5-15, 10-15, 3-25 and 5-50 years respectively.

4.2.7 Vehicles

Figure 4.8 Useful life of Vehicles (n = 18)

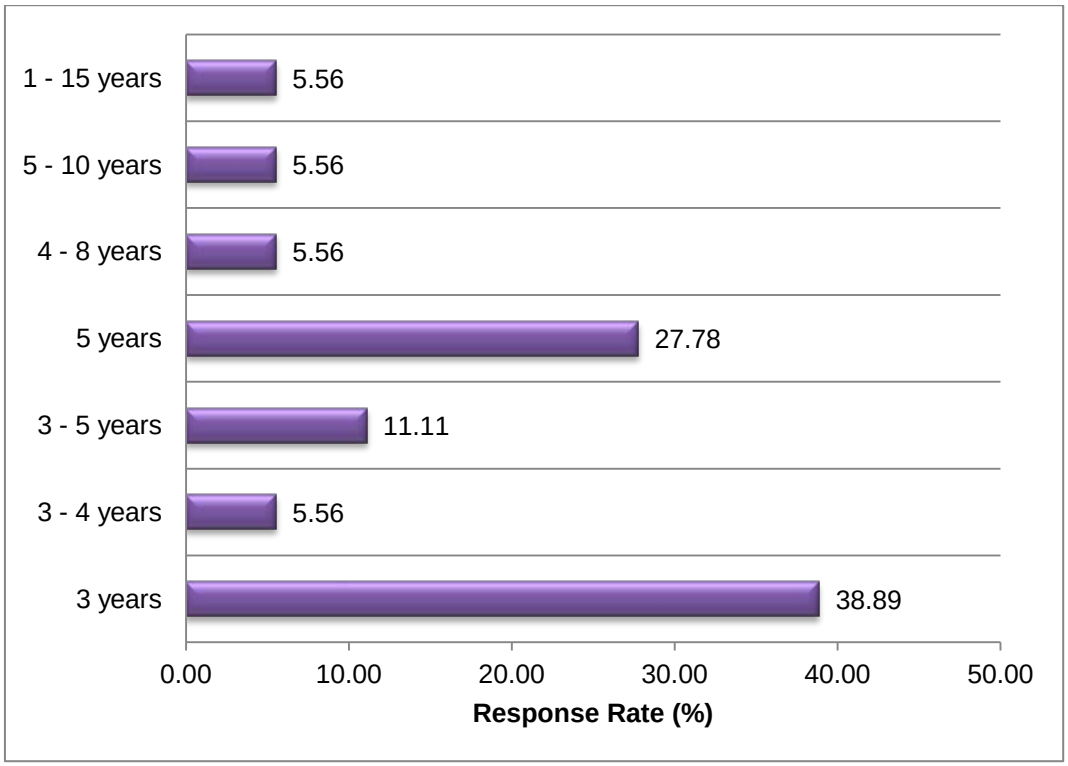


In figure 4.8 all of the respondents had selected vehicles. The useful life varied from 4 to 15 years. One third (33.33%) of the respondents apply a useful life of 5 years. The allocation of 4 years and 10 years as a useful life is applied by 27.78% and 11.11% of the institutions respectively. The remainder of 5.6% each allocate a useful life of 8, 4-10, 7-15, 8-15 and 15 years respectively. A range of useful lives is applied by 16.68% of the respondents.

4.2.8 Computers

All of the respondents had selected computers. From the results in figure 4.9, it can be seen that useful life varies from 3 to 15 years. More than one third (38.89%) of the respondents apply a useful life of 3 years, while 27.78% apply 5 years as a useful life. A range of 3-5 years is applied by 11.11%. The remaining 5.56% each apply 3-4, 4-8, 5-10 and 1-15 years respectively. The use of a range is applied by 33.36% of the respondents.

Figure 4.9 Useful life of Computers (n = 18)



4.3 VALUE OF RECORDING AND DEPRECIATION OF AN ASSET

In question two respondents were required to state the minimum rand value at which assets are recorded in the asset register. The minimum rand value at which assets are depreciated was the requirement of question three. Based on these two questions and the responses received, the researcher performed cross tabulations of the asset classes; buildings, air conditioners, lifts, escalators, furniture, equipment, vehicles and computers.

4.3.1 Buildings

Table 4.1 below illustrates that 5.6% of the respondents each record and depreciate assets with a rand value from ZAR1, ZAR15 000.00, ZAR100 000.00 and greater than ZAR5 000.00 respectively. This analysis also reflects that 11.1% of the respondents each record and depreciate assets with a rand value from ZAR5 000.00 and ZAR10 000.00 respectively. The recording and depreciating of assets with all rand values revealed a response rate of 11.1%. A further 5.6% each record with a rand value from ZAR5 000.00 and depreciate with a rand value greater than ZAR10 000.00, record with a rand value from ZAR1.00 and depreciate with a rand value from ZAR15 000.00, record with a rand value from ZAR150.00 and depreciate with a rand value from ZAR500.00, record with all rand values and depreciate with a rand value greater than ZAR2 000.00.

Table 4.1 Buildings

			1.00	10000.00	100000.00	150.00	15000.00	5000.00	5000.01	All values	Total
	Count	3	0	0	0	0	0	0	0	0	3
	% of Total	16.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	16.7%
1.00	Count	0	1	0	0	0	0	0	0	0	1
	% of Total	0.0%	5.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%
10000.00	Count	0	0	2	0	0	0	0	0	0	2
	% of Total	0.0%	0.0%	11.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	11.1%
10000.01	Count	0	0	0	0	0	0	1	0	0	1
	% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	5.6%
100000.00	Count	0	0	0	1	0	0	0	0	0	1
	% of Total	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%
15000.00	Count	0	1	0	0	0	1	0	0	0	2
	% of Total	0.0%	5.6%	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	11.1%
15000.01	Count	1	0	0	0	0	0	0	0	0	1
	% of Total	5.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%
2000.01	Count	0	0	0	0	0	0	0	0	1	1
	% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%	5.6%
500.00	Count	0	0	0	0	1	0	0	0	0	1
	% of Total	0.0%	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	0.0%	5.6%
5000.00	Count	0	0	0	0	0	0	2	0	0	2
	% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	11.1%	0.0%	0.0%	11.1%
5000.01	Count	0	0	0	0	0	0	0	1	0	1
	% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%	0.0%	5.6%
All values	Count	0	0	0	0	0	0	0	0	2	2
	% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	11.1%	11.1%
TOTAL	Count	4	2	2	1	1	1	3	1	3	18
	% of Total	22.2%	11.1%	11.1%	5.6%	5.6%	5.6%	16.7%	5.6%	16.7%	100.0%

4.3.2 Air Conditioners

In table 4.2 below 16.67% of the respondents record and depreciate air conditioning with a rand value greater the ZAR5 000.00. A response rate of 5.6% each record and depreciate assets with a rand value from ZAR1.00, ZAR1 000.00, ZAR10 000.00, ZAR15 000.00 and greater than ZAR5 000.00 respectively. The recording and depreciating of assets with all rand values revealed a response rate of 5.6%.

Table 4.2 Air conditioners

			1.00	1000.00	10000.00	150.00	15000.00	4000.00	5000.00	5000.01	All values	Total
	Count	5	0	0	0	0	0	0	0	0	0	5
	% of Total	27.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	27.8%
1.00	Count	0	1	0	0	0	0	0	0	0	0	1
	% of Total	0.0%	5.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%
1000.00	Count	0	0	1	0	0	0	0	0	0	0	1
	% of Total	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%
10000.00	Count	0	0	0	1	0	0	0	0	0	0	1
	% of Total	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%
15000.00	Count	0	1	0	0	0	1	0	0	0	0	2
	% of Total	0.0%	5.6%	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	0.0%	11.1%
2000.01	Count	0	0	0	0	0	0	0	0	0	1	1
	% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%	5.6%
500.00	Count	0	0	0	0	1	0	0	0	0	0	1
	% of Total	0.0%	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%
5000.00	Count	0	0	0	0	0	0	1	3	0	0	4
	% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%	16.7%	0.0%	0.0%	22.2%
5000.01	Count	0	0	0	0	0	0	0	0	1	0	1
	% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%	0.0%	5.6%
All values	Count	0	0	0	0	0	0	0	0	0	1	1
	% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%	5.6%
TOTAL	Count	5	2	1	1	1	1	1	3	1	2	18
	% of Total	27.8%	11.1%	5.6%	5.6%	5.6%	5.6%	5.6%	16.7%	5.6%	11.1%	100.0%

A further 5.6% each, record with a rand value from ZAR1.00 but depreciate from ZAR15 000.00, record with a rand value from ZAR150.00 but depreciate with a rand greater than ZAR500.00, record with a rand value from ZAR4 000.00 but depreciate with a rand from ZAR5 000.00, and record with all values but depreciate with a rand value greater than ZAR2 000.00.

4.3.3 Lifts

11.1% of the respondents record and depreciate lifts with a rand value from ZAR5 000.00. A response rate of 5.6% each record and depreciate lifts with a rand value from ZAR1.00, ZAR10 000.00, ZAR15 000.00, all values and greater than ZAR5 000.00. This implies that a total of 31.36% of the institutions use the same rand value to record and depreciate a lift as an asset. A further 5.6% each, record with a rand value from ZAR1.00 and depreciate with a rand value from ZAR15 000.00, record with a rand value from ZAR150.00 and depreciate with a rand value from ZAR500.00, record with all rand values and depreciate with a rand value greater than ZAR2 000.00.

Table 4.3 Lifts

			1.00	10000.00	100000.00	150.00	15000.00	5000.00	5000.01	All values	Total
	Count	7	0	0	0	0	0	0	0	0	7
	% of Total	38.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	38.9%
1.00	Count	0	1	0	0	0	0	0	0	0	1
	% of Total	0.0%	5.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%
10000.00	Count	0	0	1	0	0	0	0	0	0	1
	% of Total	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%
15000.00	Count	0	1	0	0	0	1	0	0	0	2
	% of Total	0.0%	5.6%	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	11.1%
2000.01	Count	0	0	0	0	0	0	0	0	1	1
	% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%	5.6%
500.00	Count	0	0	0	0	1	0	0	0	0	1
	% of Total	0.0%	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	0.0%	5.6%
5000.00	Count	0	0	0	0	0	0	2	0	0	2
	% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	11.1%	0.0%	0.0%	11.1%
5000.01	Count	0	0	0	0	0	0	0	1	0	1
	% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%	0.0%	5.6%
50000.00	Count	0	0	0	1	0	0	0	0	0	1
	% of Total	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%
All valu	Count	0	0	0	0	0	0	0	0	1	1
	% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%	5.6%
TOTAL	Count	7	2	1	1	1	1	2	1	2	18
	% of Total	38.9%	11.1%	5.6%	5.6%	5.6%	5.6%	11.1%	5.6%	11.1%	100.0%

4.3.4 Escalators

The total response to this asset class was one third (33.3%) of which 5.6% each record and depreciate escalators with a rand value from ZAR1.00, ZAR10 000.00, ZAR5 000.00 and greater than ZAR5 000.00. The data analysis also showed that 5.6% each, record with a rand value from ZAR150.00 and depreciate with a rand value from ZAR500.00, record with all rand values and depreciate with a rand greater than ZAR2 000.00.

Table 4.4 Escalators

			1.00	10000.00	150.00	5000.00	5000.01	All values	Total
	Count	12	0	0	0	0	0	0	12
	% of Total	66.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	66.7%
1.00	Count	0	1	0	0	0	0	0	1
	% of Total	0.0%	5.6%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%
10000.00	Count	0	0	1	0	0	0	0	1
	% of Total	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	0.0%	5.6%
2000.01	Count	0	0	0	0	0	0	1	1
	% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%	5.6%
500.00	Count	0	0	0	1	0	0	0	1
	% of Total	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	5.6%
5000.00	Count	0	0	0	0	1	0	0	1
	% of Total	0.0%	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	5.6%
5000.01	Count	0	0	0	0	0	1	0	1
	% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%	0.0%	5.6%
TOTAL	Count	12	1	1	1	1	1	1	18
	% of Total	66.7%	5.6%	5.6%	5.6%	5.6%	5.6%	5.6%	100.0%

4.3.5 Furniture

11.1% of the respondents each record and depreciate furniture with a rand value from ZAR5 000.00 and greater than ZAR5 000.00 respectively. The use of the same rand value for the recording and depreciating of furniture by institutions revealed a response rate of 5.6% each for rand values of ZAR1.00, ZAR1 000.00, ZAR2 000.00, ZAR10 000.00 and ZAR15 000.00 respectively.

Table 4.5 Furniture

			1.00	1000.00	10000.00	150.00	15000.00	2000.00	5000.00	5000.01	All values	Total
	Count	3	0	0	0	0	0	0	0	0	0	3
	% of Total	16.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	16.7%
1.00	Count	0	1	0	0	0	0	0	0	0	0	1
	% of Total	0.0%	5.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%
1000.00	Count	0	0	1	0	0	0	0	0	0	0	1
	% of Total	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%
10000.00	Count	0	0	0	1	0	0	0	1	0	0	2
	% of Total	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	11.1%
15000.00	Count	0	1	0	0	0	1	0	0	0	0	2
	% of Total	0.0%	5.6%	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	0.0%	11.1%
15000.01	Count	1	0	0	0	0	0	0	0	0	0	1
	% of Total	5.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%
2000.00	Count	0	0	0	0	0	0	1	0	0	0	1
	% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	5.6%
2000.01	Count	0	0	0	0	0	0	0	0	0	1	1
	% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%	5.6%
500.00	Count	0	0	0	0	1	0	0	0	0	0	1
	% of Total	0.0%	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%
5000.00	Count	0	0	1	0	0	0	0	2	0	0	3
	% of Total	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	0.0%	11.1%	0.0%	0.0%	16.7%
5000.01	Count	0	0	0	0	0	0	0	0	2	0	2
	% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	11.1%	0.0%	11.1%
TOTAL	Count	4	2	2	1	1	1	1	3	2	1	18
	% of Total	22.2%	11.1%	11.1%	5.6%	5.6%	5.6%	5.6%	16.7%	11.1%	5.6%	100.0%

A total response rate of a fraction more than half 50.4% of the respondent's use the same rand value to record and depreciate furniture. The use of the same rand value for the recording and depreciating of furniture by institutions revealed a response rate of 5.6% each for rand values of ZAR1.00, ZAR1 000.00, ZAR2 000.00, ZAR10 000.00 and ZAR15 000.00 respectively.

4.3.6 Equipment

Table 4.6 Equipment

			1.00	1000.00	10000.00	150.00	15000.00	2000.00	5000.00	5000.01	All values	Total
	Count	3	0	0	0	0	0	0	0	0	0	3
	% of Total	16.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	16.7%
1.00	Count	0	1	0	0	0	0	0	0	0	0	1
	% of Total	0.0%	5.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%
1000.00	Count	0	0	0	0	0	0	0	1	0	0	1
	% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	5.6%
10000.00	Count	0	0	0	1	0	0	0	1	0	0	2
	% of Total	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	11.1%
15000.00	Count	0	1	0	0	0	1	0	0	0	0	2
	% of Total	0.0%	5.6%	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	0.0%	11.1%
15000.01	Count	1	0	0	0	0	0	0	0	0	0	1
	% of Total	5.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%
2000.00	Count	0	0	0	0	0	0	1	0	0	0	1
	% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	5.6%
2000.01	Count	0	0	0	0	0	0	0	0	0	1	1
	% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%	5.6%
500.00	Count	0	0	0	0	1	0	0	0	0	0	1
	% of Total	0.0%	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%
5000.00	Count	0	0	1	0	0	0	0	2	0	0	3
	% of Total	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	0.0%	11.1%	0.0%	0.0%	16.7%
5000.01	Count	0	0	0	0	0	0	0	0	2	0	2
	% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	11.1%	0.0%	11.1%
TOTAL	Count	4	2	1	1	1	1	1	4	2	1	18
	% of Total	22.2%	11.1%	5.6%	5.6%	5.6%	5.6%	5.6%	22.2%	11.1%	5.6%	100.0%

11.1% of the respondents each record and depreciate equipment with a rand value from ZAR5 000.00 and greater than ZAR5 000.00 respectively. A response rate of 5.6% each showed that institutions record and depreciate equipment with a rand value from ZAR1.00, ZAR2 000.00, ZAR10 000.00 and ZAR15 000.00 respectively. Less than half (44.6%) of the institutions have the same recording and depreciating rand value for equipment. A further 5.6% each, record with a rand value from ZAR1.00 and depreciate with a rand value from ZAR15 000.00, record with a rand value from ZAR150.00 and depreciate with a rand value from ZAR500.00, record with a rand value from ZAR1 000.00 and depreciate with a rand value from ZAR5 000.00, record with a rand value from R5 000.00 and depreciate with a rand value from ZAR10 000.00, record with all rand values and depreciate with a rand value greater thanZA R2 000.00.

4.3.7 Vehicles

Table 4.7 Vehicles

			1.00	10000.00	100000.00	150.00	15000.00	5000.00	5000.01	50000.00	All values	Total
	Count	3	0	0	0	0	0	0	0	0	0	3
	% of Total	16.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	16.7%
10000.00	Count	0	0	1	0	0	0	1	0	0	0	2
	% of Total	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	11.1%
100000.00	Count	0	0	0	1	0	0	0	0	0	0	1
	% of Total	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%
15000.00	Count	0	1	0	0	0	1	0	0	0	0	2
	% of Total	0.0%	5.6%	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	0.0%	11.1%
15000.01	Count	1	0	0	0	0	0	0	0	0	0	1
	% of Total	5.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%
2000.01	Count	0	0	0	0	0	0	0	0	0	1	1
	% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%	5.6%
500.00	Count	0	0	0	0	1	0	0	0	0	0	1
	% of Total	0.0%	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%
5000.00	Count	0	0	0	0	0	0	3	0	0	0	3
	% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	16.7%	0.0%	0.0%	0.0%	16.7%
5000.01	Count	0	0	0	0	0	0	0	2	0	0	2
	% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	11.1%	0.0%	0.0%	11.1%
50000.00	Count	0	0	0	0	0	0	0	0	1	0	1
	% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%	0.0%	5.6%
All values	Count	0	0	0	0	0	0	0	0	0	1	1
	% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%	5.6%
TOTAL	Count	4	1	1	1	1	1	4	2	1	2	18
	% of Total	22.2%	5.6%	5.6%	5.6%	5.6%	5.6%	22.2%	11.1%	5.6%	11.1%	100.0%

16.7% of the institutions record and depreciate vehicles with a value from ZAR5 000.00. The recording and depreciating of vehicles with a rand value greater than ZAR5 000.00 had a response rate of 11.1%. A response rate of 5.6% each showed that institutions record and depreciate vehicles with a rand value from ZAR10 000.00, ZAR15 000.00, ZAR50 000.00, ZAR100 000.00 and all values respectively. This implies that a little more than half (55.8%) of the institutions have the same rand value for the recording and depreciating of vehicles. A further 5.6% each record with a rand value from ZAR1.00 and depreciate with a rand value from ZAR15 000.00, record with a rand value from ZAR150.00 and depreciate with a rand value from ZAR500.00, record with a rand value from ZAR5 000.00 and depreciate with a rand value from ZAR10 000.00, record with all rand values and depreciate with a rand value greater than ZAR2 000.00

4.3.8 Computers

Table 4.8 Computers

			1.00	1000.00	10000.00	150.00	15000.00	2000.00	3000.00	4000.00	5000.00	5000.01	All values	Total
	Count	3	0	0	0	0	0	0	0	0	0	0	0	3
	% of Total	16.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	16.7%
1000.00	Count	0	0	1	0	0	0	0	0	0	0	0	0	1
	% of Total	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%
10000.00	Count	0	0	0	1	0	0	0	0	0	0	0	1	2
	% of Total	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%	11.1%
15000.00	Count	0	1	0	0	0	1	0	0	0	0	0	0	2
	% of Total	0.0%	5.6%	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	11.1%
15000.01	Count	1	0	0	0	0	0	0	0	0	0	0	0	1
	% of Total	5.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%
2000.00	Count	0	0	0	0	0	0	1	0	0	0	0	0	1
	% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%
2000.01	Count	0	0	0	0	0	0	0	0	0	0	0	1	1
	% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%	5.6%
3000.00	Count	0	0	0	0	0	0	0	1	0	0	0	0	1
	% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	0.0%	5.6%
500.00	Count	0	0	0	0	1	0	0	0	0	0	0	0	1
	% of Total	0.0%	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%
5000.00	Count	0	0	0	0	0	0	0	0	1	2	0	0	3
	% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%	11.1%	0.0%	0.0%	16.7%
5000.01	Count	0	0	0	0	0	0	0	0	0	0	2	0	2
	% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	11.1%	0.0%	11.1%
TOTAL	Count	4	1	1	1	1	1	1	1	1	2	2	2	18
	% of Total	22.2%	5.6%	5.6%	5.6%	5.6%	5.6%	5.6%	5.6%	5.6%	11.1%	11.1%	11.1%	100.0%

11.1% of the respondents each record and depreciate computers with a rand value from ZAR5 000.00 and greater than ZAR5 000.00 respectively. A response rate of 5.6% each illustrated that institutions record and depreciate computers with a rand value from ZAR1 000.00, ZAR2 000.00, ZAR3 000.00, ZAR10 000.00 and ZAR15 000.00 respectively. A total of a little more than half (51.1%) of the institutions record and depreciate computers with the same rand value. In other words, the minimum rand vale at which the computer is recorded in the asset register is the same as the minimum rand value at which the computer will be depreciated. A further 5.6% each, record with a rand value from ZAR1.00 and depreciate with a rand value from ZAR15 000.00, record with a rand value from ZAR150.00 and depreciate with a rand value from ZAR500.00, record with a rand value from ZAR4 000.00 and depreciate with a rand value from ZAR5 000.00, record with all rand values and depreciate with a rand value from ZAR10 000.00, record with all rand values and depreciate with a rand value greater than ZAR2 000.00.

4.3.9. DISCUSSION

The results presented in respect of asset classes and useful life indicate that there are common asset classes in use; there is however a varied range of useful lives applied by the different institutions. The activities or business at Institutions are similar in nature but the useful lives differ. It is important to note that the useful life of an asset has an effect on the Financial Statement of the institution as it can increase or decrease the surplus/deficit of an Institution. To this end the shorter the useful life in an asset class, the higher the depreciation expense will be thus reducing the profit or increasing the loss. The following example by the researcher illustrates the above point, in other words, the effect or recording equipment with the same purchase price but with different useful life:

	University A	**University B**
Useful life in years	10	20
Cost of equipment	ZAR150 000.00	ZAR150 000.00
Depreciation expense	ZAR15 0000.00 per year (ZAR150 000.00 / 10 years)	ZAR7 500.00 per year (ZAR150 000.00 / 20 years)
Effect of depreciation	Surplus will be reduced by ZAR15 000.00, or Deficit will be increased by ZAR15 000.00	Surplus will be reduced by ZAR7 500.00, or Deficit will be increased by ZAR7 500.00

Recording as above also has an effect on the net book value which is calculated by subtracting the accumulated depreciation from the cost of the asset/equipment. Using different useful lives affects the net book value a follows:

A shorter useful life results in a higher depreciation expense which in turn leads to higher accumulated depreciation (as illustrated below).

	10 years useful life University A	20 years useful life University B
Equipment at cost	ZAR150 000.00	ZAR150 000.00
Less: accumulated depreciation	ZAR15 000.00	ZAR7 500.00
Net book value	ZAR135 000.00	ZAR142 500.00

Given that PHEIs use different useful life, there is no consistency in terms of recording of assets in this regard. Consistency helps achieve comparability. Service (2011:12) argues that Financial Statements should be comparable from one entity to the next; therefore institutions should comply with the same standards, so that when comparing institutions a measure of comparability is guaranteed.

The findings presented in terms of the values of recording and depreciation of an asset show the use of specific amounts for the recording and depreciating of assets by the various universities. Lube and Watson (2006:82) explain that an item of property, plant and equipment will be recognised in the balance sheet if it meets the definition of an asset as well as the recognition criteria.

Analysis of the data revealed that the majority of the institutions have set specific amounts for the recording and depreciating of assets which is in direct contrast to the definition and recognition criteria (explained in Chapter 2). It was also found that amounts or cost of the asset item/s that fall below these specific amounts are expensed through the income statement. Non application of the definition and recognition criteria may result in the incorrect allocation of the cost and an overstatement of expenses and an understatement of property, plant and equipment.

To illustrate the non-application of the definition and recognition criteria, the researcher uses an example of a fictious Institution Y below:

If Institution Y purchases a laptop for ZAR9 300.00 and this institution only records and depreciates asset items from ZAR10 000.00, it means non-application of the definition and recognition criteria. The cost (ZAR9 300.00) will be recorded as an expense in the Income Statement only.

Institution Y could meet the definition and recognition criteria by using Lube and Watson's (2006:82) explanation of application as follows, the:

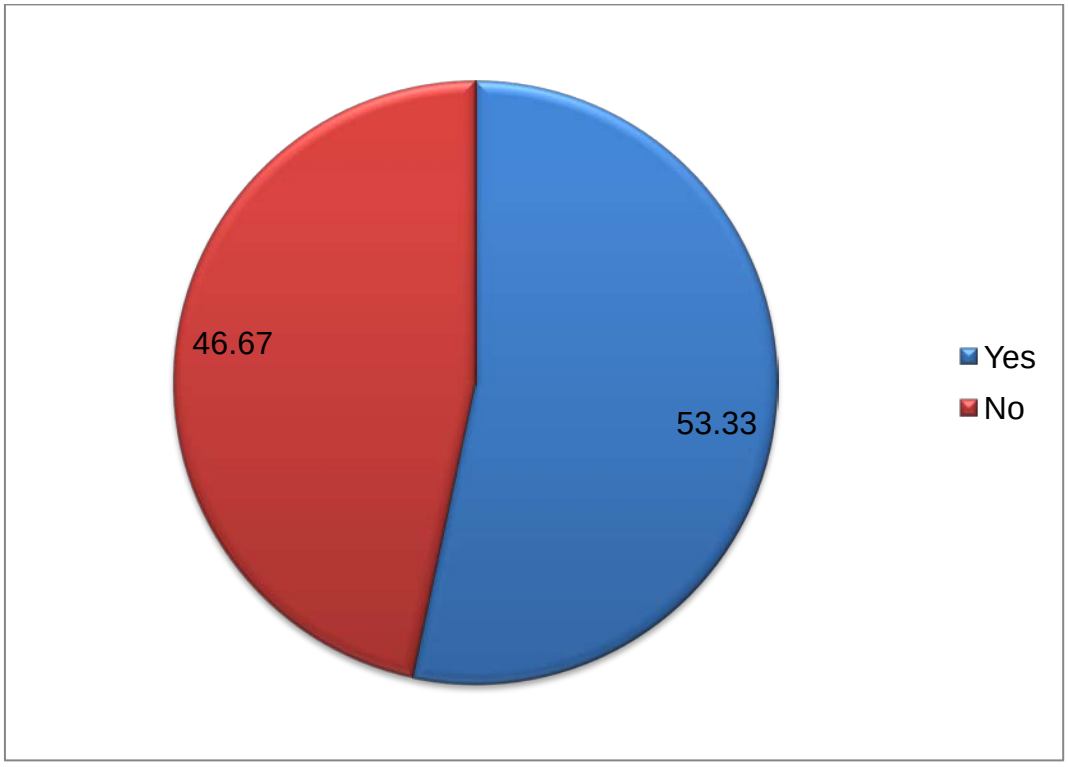
- item is a resource controlled by the entity as a result of a past event;
- item will give rise to probable future economic benefits; and
- amount at which the item is recognised can be measured reliably.

Institution Y could recognise the laptop as a *resource controlled by the institution*. The *result of a past event* would be payment for the item. The *probable future economic benefits* would be that the laptop is as a teaching tool. The amount at which the *item is recognised can be measured reliably* as the actual purchase price (ZAR9 300.00) is known.

4.4 ASSET COMPONENTS

Wingard, Von Well, Pretorius, Ferreira, Badenhorst and Van Der Merwe (2011:156) state that upon acquisition of an item of property, plant and equipment, cost should be allocated to its significant parts or components as some components may require replacement at regular intervals, while others will be replaced less frequently.

Figure 4.10 Asset Components

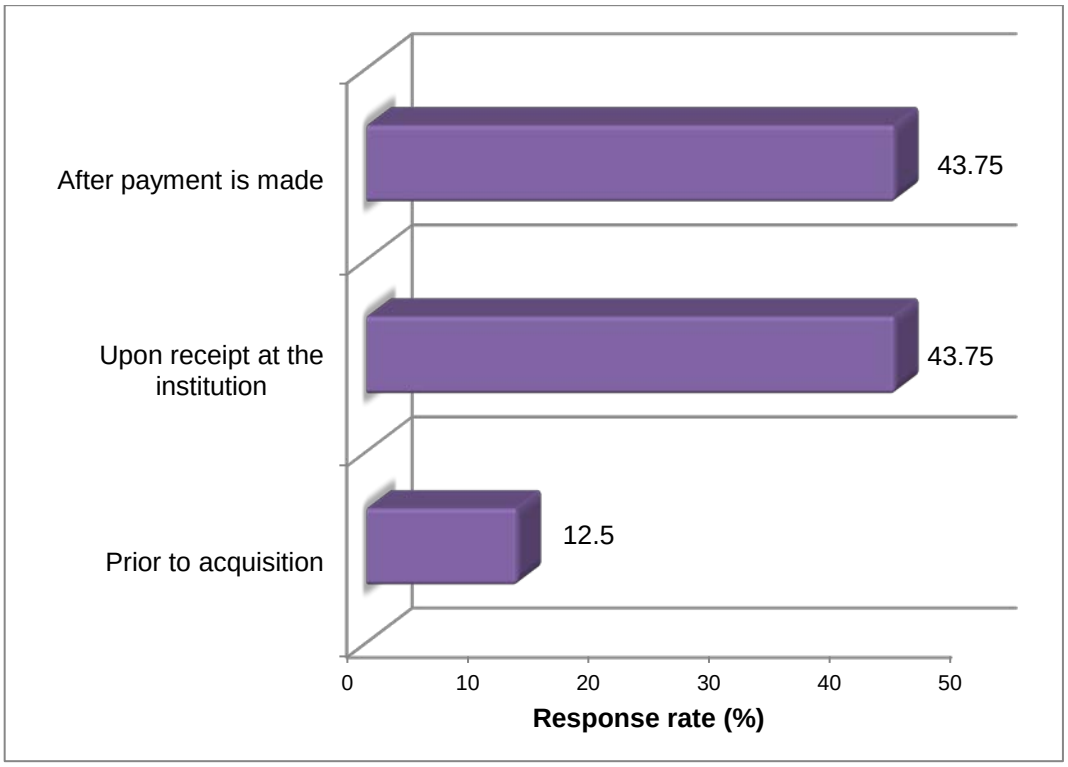


The above figure shows that a little more than half (53.33%) of the respondents apply the concept of asset components, 46.67% do not apply this concept. The allocation of costs to components allow for depreciation calculation per component. Weygandt, Kimmel and Kieso (2011:398) assert that component depreciation requires that any significant parts of an asset that have significantly different estimated useful life should be separately depreciated.

Service (2011:275) concurs that in order for depreciation to be more accurately calculated, it is sometimes necessary to recognise and measure each part of an asset separately, depreciating each of these parts individually, rather than recognising, measuring and depreciating that asset as a whole.

4.5 RECORDING OF AN ASSET

Figure 4.11 Recording of an asset in the asset register (n =)



From the above figure it can be seen that 43.75% of the respondents each record an asset either after payment is made or upon receipt at the institution. The reminder of 12.5% record the asset prior to acquisition. The recording of the asset upon receipt at the institution is when the risks and rewards have passed to the institution and the asset is available for use, so the depreciating calculation can start from that date.

Payment is made after the assets are received so to record the asset with the payment date will also delay the actual calculation of the depreciation. The recording of an asset prior to acquisition will result in an overstatement of PPE as well an overstatement of depreciation.

4.6 ACQUISITION DATE

Figure 4.12 Acquisition Date

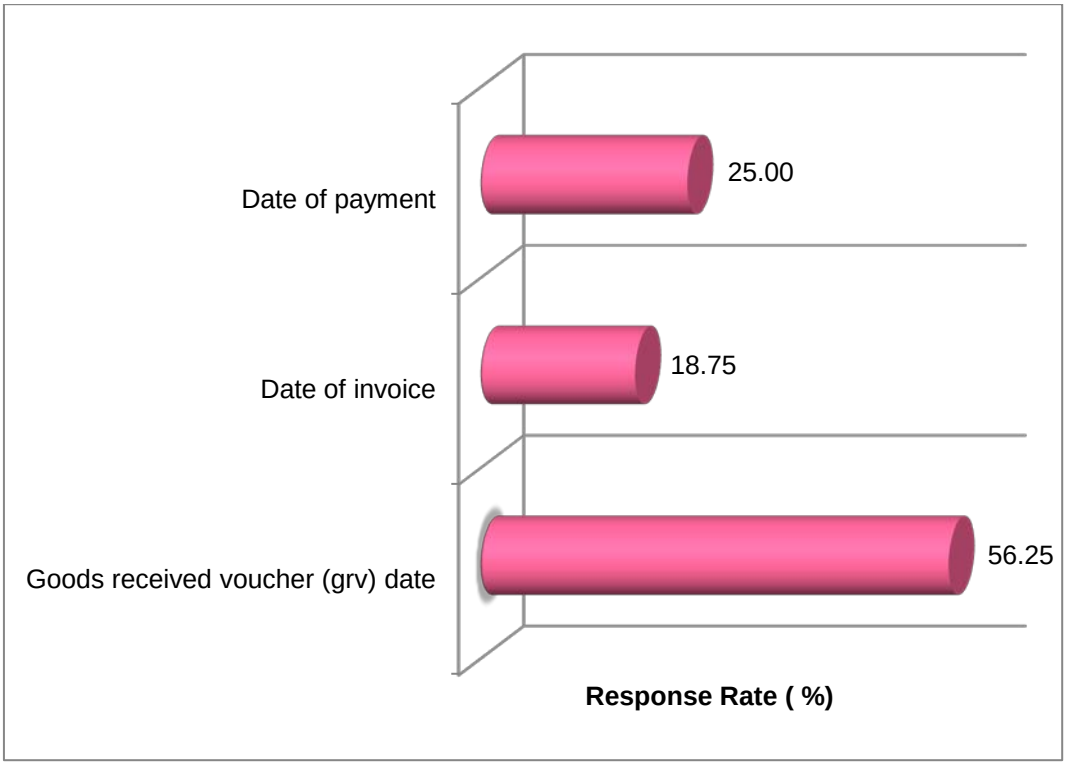


Figure 4.12 indicates that more than half (56.25%) of the respondents selected the Goods Received Voucher (GRV) date as the date acquired. This finding implies that the 56.25% of the respondents will use the goods GRV date as the acquisition date in the asset register. Lubbe and Watson (2006:84) concur that the acquisition date is the date on which the risks and reward of ownership of the asset have been transferred from the seller to the buyer.

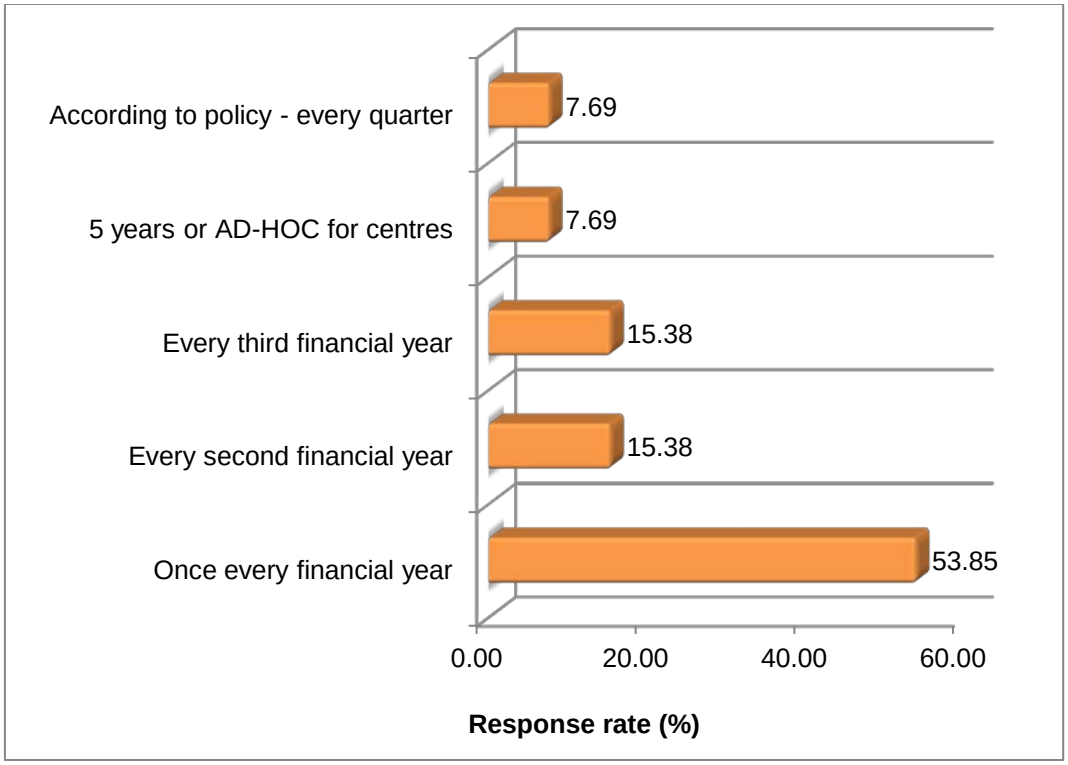
25% of the respondents selected date of payment as the acquisition date which implies that the asset is recorded in the asset register only when payment is made. However, Lubbe and Watson (2006:84) assert that the accrual basis of accounting requires that a transaction be recorded when it occurred, not when payment was made. The reminder of 18.75% use the invoice date as the acquisition date. The invoice date is the date on which the invoice is printed and may not necessarily be the date on which the assets were received.

4.7 ASSET VERIFICATION

Asset verification (stocktaking of assets) should be carried out at least once every financial year. This verification process should take place as close as possible to the institutions financial year end as the results of the verification can be used to support the carrying value of assets recorded as PPE in the Financial Statements.

According to Fourie and Opperman (2011:393), the verification of assets recorded in the asset register entails the following checks, that the assets: still exist; are not impaired to any significant extent, but are in fact in good working order; and are still under the proper control of the department concerned.

Figure 4.13 Asset Verification



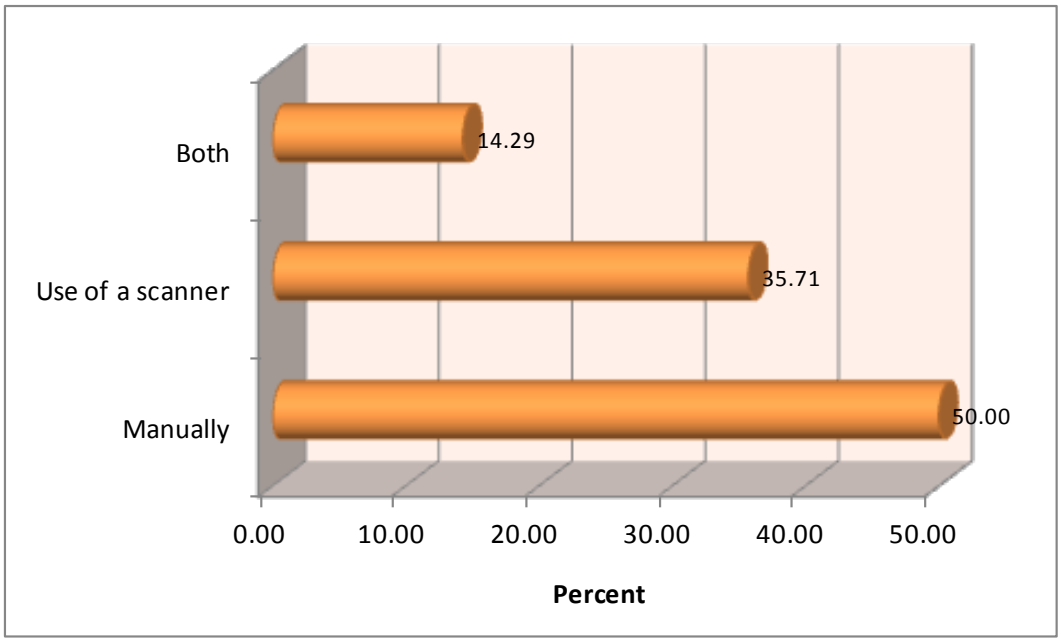
61.54% of the respondents carry out asset verification at least once every financial year. An equal response rate of 15.38% each carry out asset verification every second and third financial year respectively. Accordingly 38.45% of the respondents will not reflect the findings of the asset verification in the correct accounting period as a result the total value of the PPE may be overstated.

The following example by the researcher explains the effect of asset verification within a financial year:

University A, during the asset verification process identifies that 20 computers in a computer laboratory are obsolete. These computers will have to be derecognised, and the PPE adjusted accordingly in that financial year.

4.7.1 Method of asset verification

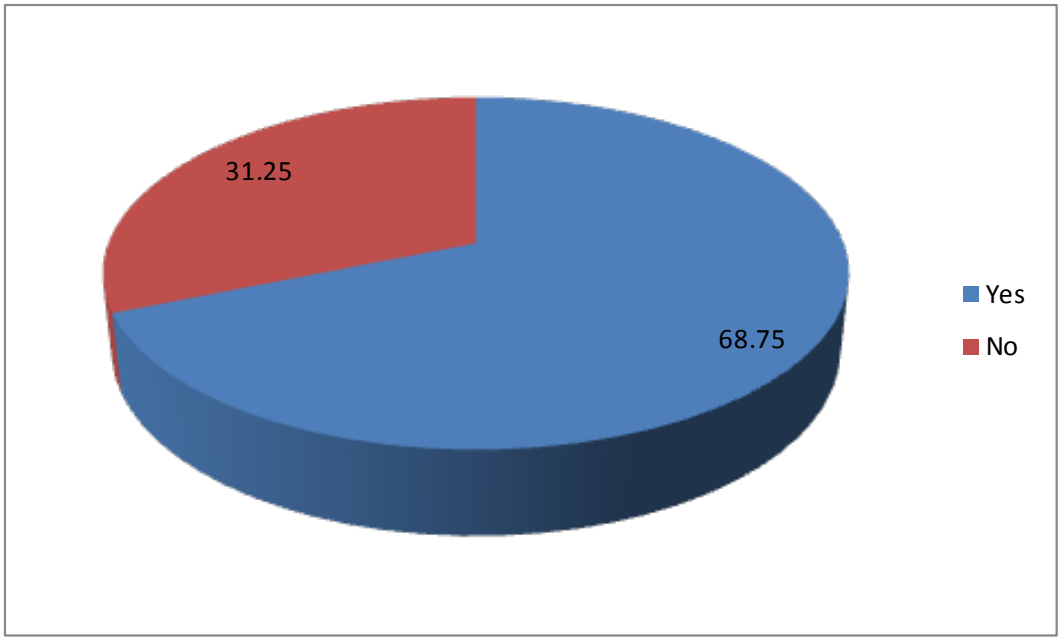
*Figure 4.14 M*ethod of asset verification



50% of the respondents use the manual process for the verification of assets, while 35.71% make use of a scanner. The remainder of 14.29 use both methods.

4.8 RESIDUAL VALUES

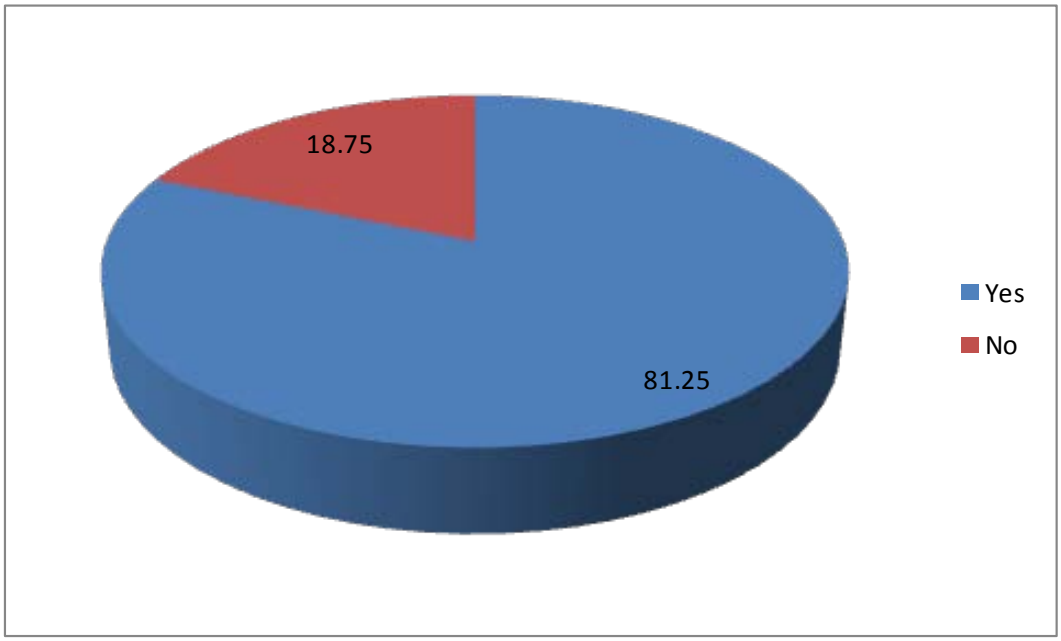
Figure 4.15 Residual values



68.75% of the respondents review the residual values of the institutions asset/s on an annual basis while the remainders of 31.25% do not review residual values. The institutions that do not review residual values is because of the absence of a policy or have not seen the need to do so.

4.9 ASSET POLICY

Figure 4.16 Asset policy



81.25% of the institutions have an asset policy while 18.75 have no asset policy. Respondents with an asset policy have indicated that the policy is helpful for the management of assets and serves as a guideline.

4.10 SUMMARY

This research study used both qualitative and quantitative methods to gather data. The findings show that PHEIs have different accounting treatment for PPE which diminishes comparability amongst them even though the use of these alternatives may result in fair presentation of the Financial Statements. The next chapter presents the conclusions that arose from the research findings, highlights recommendations and makes suggestions for further research.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1 OVERVIEW OF THE STUDY

Property, plant and equipment are tangible assets used in normal operations and are held by institutions until they are no longer of service; once the service potential has been exhausted, the assets are derecognised and disposed of (Jones, Mowen, Hansen and Rich (2012: 313). From the point of recognition until the time the asset is derecognised, accounting treatment of the assets is recorded in the Financial Statements. The aim of this study was to investigate the accounting treatment of property, plant and equipment at public higher education institutions in South Africa.

Chapter one provided an introduction to the study and Chapter two presented an overview of pertinent literature and the terminologies related to assets were explained and discussed in detail. Examples were used to further explain certain concepts. References were made to the International Financial Reporting Standards (IFRS) statements Numbers IAS16 and IAS36. Chapter three described the methodology employed in the study. Chapter four analysed, interpreted and presented the data obtained from the questionnaires. Results were presented in the form of graphs, pie charts and cross tabulations. This chapter presents the achievement of the objectives and limitations of the study followed by the recommendations and suggestions for future research.

5.2 ACHIEVEMENT OF THE OBJECTIVES

5.2.1 Objective 1: To identify the different asset classes and their respective useful life

The researcher had pre-determined the commonly used asset classes after having reviewed the financial statements of the PHEIs. In addition to the pre-determined classes, respondents were given the opportunity to include any other asset class/es at their institutions. The findings revealed that the majority of the respondents had selected the pre-determined classes. Respondents had also indicated the various other asset classes in use at their Institutions.

The respondents were requested to state the useful life, in years, for each asset class. The findings revealed that institutions apply different useful lives for the same asset classes. In some instances there was a range of useful life for certain classes of assets. The useful life of an asset determines the rate of depreciation, in other words, the calculation of the depreciation expense for the asset. Shorter useful lives result in a higher depreciation expense in a given financial year thereby reducing the income by a larger amount. Conversely, longer useful lives will result in smaller depreciation expense in a given financial year thereby reducing the income by a smaller amount.

5.2.2 Objective 2: To find out how asset transactions are recorded

This study identified that PHEIs use threshold amounts for the recording and depreciating of assets. The findings revealed that some PHEIs use the same value for the recording and depreciating of assets while others record at one value but depreciate at a higher value.

The analysis showed that there are PHEIs that do not record assets below a threshold amount in the asset register. The research was able to identify the use of different acquisition dates which may imply different start dates for the calculation of depreciation. The use of the asset classes: buildings; air conditioners; and lifts or escalators is an indication that PHEIs apply the component approach to assets as the useful lives of buildings are longer than that of air conditioners, lifts or escalators.

5.2.3 Objective 3: To determine the accounting treatment of assets in terms of cost, depreciation, impairment and disposal

This study found that PHEIs in South Africa depreciate PPE at different rates as they apply varying useful life to different asset classes. In terms of impairment, it was found that some PHEIs only carry out impairment testing on high value assets (which is based on cost or purchase price). While some institutions do impairment testing on an annual basis, others do not as they do not have a policy in place for impairment testing.

As disposals are done at different intervals, that is monthly or annually, disposal of assets is not always done at the time of the actual disposal. As a result, the assets are still reflected in the asset register.

Some PHEIs use threshold amounts to record assets. If PHEIs do not include all the costs of an asset in their Financial Statements, these costs will be immediately expensed which would lower income in the current period. Jones *et al*. (2012:316) state that the information necessary to measure depreciation is: cost; useful life; and residual value of the asset. The accumulated depreciation account constitutes the total of the depreciation over the years.

5.3 RECOMMENDATIONS

The recommendations emanating from the research findings are presented below.

5.3.1 Useful life of assets

Given that the activities or business of educational institutions are similar in nature, PHEIs need to apply consistent recording of assets in terms of their useful life as the useful life of an asset has direct correlation with the profits or losses of an institution. For the sake of transparency, consistency and comparability across institutions, it is necessary for all PHEIs to use the same standards regarding useful life of assets. This will address the diverse interpretations and applications of GAAP and the IAS statements in relation to PPE.

5.3.2 Costs

All expenditure directly related to the asset must be included in determining the cost of the asset as directly attributable costs are the key issue in the measurement of costs.

5.3.3 De-recognition

Asset items that have been derecognized should be removed from the asset register and the accounting entries for the asset disposal should be processed. The depreciation for the asset must cease at the disposal date. The profit or loss on the disposal should be determined at the time of disposal.

5.3.4 Impairment

While the accounting standard for the impairment of assets requires impairment testing at least once every financial year, this assessment can be carried out throughout the year. The test for impairment should not only be on the high value assets but rather the factors that determine if impairment exist, should be considered.

5.3.5 Residual value

The residual value of the asset item should be a reflection of that asset and should be reviewed every financial year. The use of a zero amount for the residual value will result in the asset being fully depreciated and still in use. The impact of this is the writing back of depreciation which will also affect the prior year's financial statements.

5.3.6 Standards

Financial reporting can be seen as a means for the communication of financial information to its users and these reports should be based on sound accounting standards. From the analysis of the study there is a need for the development of a standard for the management of PPE at PHEIs that will bring about consistent accounting treatment. The accounting statements (GAAP) related to PPE can serve as the basis. The standard can be a generic process that can be applied and could consider best practice in the development stages. The standard should explain the accounting treatment for PPE and the presentation and disclosure requirement.

5.4 LIMITATIONS OF THE STUDY

The research undertaken had certain limitations as outlined below.

There was limited literature that focused specifically on the accounting treatment of Property, plant and equipment at public higher education institutions in South Africa. As such, the researcher had to rely on information from conferences and other sources.

Data gathered from the auditors of public HEIs in South Africa with regards to PPE could have served to verify and enrich the findings of this study. Unfortunately, the researcher was unsuccessful in gathering such data.

He had designed and administered (*via* email) questionnaires to the five major PHEI audit companies in South Africa but despite numerous telephonic and email reminders, the auditors did not complete and return the questionnaires.

The data gathered for this study was only from public higher education institutions as the researcher wanted to compare institutions with similar characteristics. Any significant results emerging from this study therefore may not necessarily reflect the situation at private higher education and further education and training institutions in South Africa but will undoubtedly prove useful in beginning to understand and address issues around the accounting treatment of PPE at PHEIs.

5.5 SUGGESTIONS FOR FURTHER RESEARCH

The core business of all universities is the provision of higher education. An assessment of the impact and value of benefit that depreciation, useful life, residual values and impairment to HEI's needs to be further researched.

Research into the accounting treatment of PPE at private HEIs and Colleges of Further Education and Training could present interesting insights and lessons for the public HEIs.

For reasons stated earlier, the researcher could not canvas responses from the auditors of public HEIs. A study into the perceptions and perspectives of the auditors would complement this study and could unveil pertinent issues regarding PPE.

Research into the establishment of a framework for the standardised accounting treatment of PPE at all public HEIs could go a long way toward recording, reporting, classifying and verifying assets. Financial statements across all HEIs will then become comparable.

5.6 CONCLUDING REMARKS

This research acknowledges the report by SAICA (2012) which states that: Entities that are currently reporting under Statements of Generally Accepted Accounting Practice (SA GAAP) are required to move to IFRS as SA GAAP will no longer be available for use in respect of financial years commencing on or after 1 December 2012. This study however made reference to IFRS statements and is therefore not affected by the above.

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APPENDIX A

Cover Letter

Letter of Consent

Questionnaire to PHEI’s

APPENDIX A

DURBAN UNIVERSITY of TECHNOLOGY

10 September 2010

Dear Participant

I am studying towards an MTech Degree in Management Accounting at the Durban University of Technology. The title of my research is: An investigation into the Accounting treatment of property, plant and equipment at public higher education institutions in South Africa.

Please complete the attached questionnaire to enable me to gather data for my research. The information you provide will be kept strictly confidential. Only my research supervisor and I will have access to the completed questionnaires. Please be assured that you will remain completely anonymous throughout the research process and in any reporting or write-ups related to my research.

Please read and sign the attached Consent Form. Please return the Consent Form and completed questionnaire to Mr S.Kheru.

Thank you very much.

[redacted]

Mr S.Kheru
Student no : 18952064

Tel. No. : (W) 031 3735281
(Cell) 0837773636
(email) :kherus@dut.ac.za

[redacted]

Prof. P Singh
Research Supervisor

DURBAN UNIVERSITY of TECHNOLOGY

A leading University of Technology in Africa

10 September 2010

LETTER OF CONSENT

Dear Participant

Thank you for agreeing to participate in this research study entitled: An investigation into the accounting treatment of property, plant and equipment at public higher education institutions in South Africa.

This research intends to identify best practice for the consistent accounting treatment of PPE at HEIs in South Africa.

The researcher undertakes to assure you of the following:

- to maintain your confidentiality
- to protect your rights and welfare, i.e. to ensure that no harm comes to you as a result of your participation in this research;
- to present information and transcripts used in this research in such a way as to maintain your dignity, and if in doubt to first consult with you; and
- to make available to you the final copy of this research publication
- you are free to withdraw from this research at any time, if the need should arise
- no manipulation or withholding of information is involved in this study

I take this opportunity of thanking you in advance for your assistance and support in completing the questionnaire.

Yours sincerely

[redacted]

S. Kheru
Student No: 18952064
MTech: Management Accounting

I, _____ (participant's name) agree to participate in this study, to add to the body of academic knowledge in Management Accounting.

_____ _____

Participant's signature Date

SECTION A: YOUR PERSONAL DETAILS

Name of institution	
Name	
Designation/job title	
YOUR CONTACT DETAILS	
Telephone number	
email address	

NB: THIS PAGE WILL BE REMOVED BEFORE THE QUESTIONNAIRE IS SENT FOR ANALYSIS.

SECTION: B

1. What are the different asset classes and their useful life at your institution

ASSET CLASS	INSERT "X"	USEFUL LIFE (IN YEARS)
Buildings		
Air-conditioners		
Lifts (elevators)		
Escalators		
Furniture		
Equipment		
Vehicles		
Computers		
Other (please indicate asset classes at your institution not included above) 1.		
2.		
3.		
4.		
5.		
6.		

2. Please indicate the minimum rand value of an asset that is recorded in the asset register (e.g. >R1.00, >R1 000.00, >R10 000.00, or all values) in the column provided.

ASSET CLASS	RAND VALUE
Buildings	
Air-conditioners	
Lifts (elevators)	
Escalators	
Furniture	
Equipment	
Vehicles	
Computers	
Other (please use your classification from question 1) 1.	
2.	
3.	
4.	
5.	
6.	

3. What is the minimum rand value of an asset that is capitalized/depreciated (eg. >R1.00, >R1 000.00, >R10 000.00, or all values) in the column provided.

ASSET CLASS	RAND VALUE
Buildings	
Air-conditioners	
Lifts (elevators)	
Escalators	
Furniture	
Equipment	
Vehicles	
Computers	
Other (please use your classification from question 1) 1.	
2.	
3.	
4.	
5.	
6.	

4.

4.1 Does your institution have an asset policy?

Yes		No	

4.2 Please explain briefly the impact the above has on the management of assets or the functioning of your department at the institution.

5. Does your institution review the residual value of assets?

Yes		No	

5.1 If you answered 'yes', please state how often this is done

5.2 If you answered 'no', please explain why

6. Are significant components (e.g. computer CPU, monitor, etc) of assets recorded separately?

Yes		No	

6.1 If you answered 'yes', please provide examples of components

_____

_____

_____

6.2 If you answered 'no', please explain how you differentiate between different components (e.g. in the case of an insurance claim)

_____

_____

_____

7. How often/what is the frequency of the following *(PLACE AN "X" IN THE REVELANT BOX)*

	DAILY	WEEKLY	MONTHLY	QUARTERLY	BI - ANNUALLY	ANNUALLY
Additions to asset register (new purchases)						
Reconciliation of asset register to general ledger						
Updating of depreciation on the asset register						
Updating of disposals on the asset register						

8. At which point is an asset recorded in the asset register

Prior to acquisition (when order is confirmed)	
Upon receipt at the institution	
After payment is made	

9. How do you identify ' date acquired' of an asset?

Goods received voucher (grv) date	
Date of invoice	
Date of payment	

9.1 Please explain the reason/s for the above

_____

_____

_____

10. Who is responsible for the tagging of asset/s?

Staff from the asset department	
Staff from the custodian department	

10.1 Please explain the reason/s for the above

_____

_____

_____

11. What is the physical location of the asset when it is tagged?

At a central location (e.g. stores)	
At the custodian department	

11.1 Please explain the reason/s for the above

_____

_____

_____

12. Is an asset

	Yes	No
12.1 allocated to a room number?		
12.2 allocated to a staff member?		

12.1

13. Who is responsible for asset verification/stock-taking?

Custodian department	
External contractor or consultant	
Asset department	

13.1 Please give a reason/s for your answer

_____

_____

_____

14. How is asset verification (stock-taking) done?

Manually	
Use of scanner	

14.1 Please explain the reason/s for the above

15. How often/what is the frequency of asset verification/stock-taking?

Once every financial year	
Every second financial year	
Every third financial year	

16. Does your institution carry out impairment testing on assets?

Yes		No	

16.1 If you answered 'yes', please explain the process

16.2. If you answered 'no', please explain why

17. Please provide any other comment/s on the management of assets at your institution

Thank you for taking the time to complete this questionnaire.

APPENDIX B

Cover Letter

Letter of Consent

Questionnaire to Audit Firms

DURBAN UNIVERSITY of TECHNOLOGY

21 December 2011

Dear Participant

I am studying towards an MTech Degree in Management Accounting at the Durban University of Technology. The title of my research is: An investigation into the accounting treatment of property, plant and equipment at public higher education institutions in South Africa.

Please complete the attached questionnaire to enable me to gather data for my research. The information you provide will be kept strictly confidential. Only my research supervisor and I will have access to the completed questionnaires. Please be assured that you will remain completely anonymous throughout the research process and in any reporting or write-ups related to my research.

Please read and sign the attached Consent Form. Please return the Consent Form and completed questionnaire to Mr S.Kheru.

Thank you very much.

[redacted]

Mr S.Kheru
Student no : 18952064

Tel. No. : (W) 031 3735281
(Cell) 0837773636
(email) :kherus@dut.ac.za

DURBAN UNIVERSITY of TECHNOLOGY

LETTER OF CONSENT

Dear Participant

Thank you for agreeing to participate in this research study entitled: An investigation into the accounting treatment of property, plant and equipment at public higher education institutions in South Africa.

This research intends to identify best practice for the consistent accounting treatment of PPE at HEIs in South Africa.

The researcher undertakes to assure you of the following:

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- to present information and transcripts used in this research in such a way as to maintain your dignity, and if in doubt to first consult with you; and
- to make available to you the final copy of this research publication
- you are free to withdraw from this research at any time, if the need should arise
- no manipulation or withholding of information is involved in this study

I take this opportunity of thanking you in advance for your assistance and support in completing the questionnaire.

Yours sincerely

S. Kheru
MTech: Management Accounting
Student No: 18952064

I, _____ (participant's name), agree to participate in this study, to add to the body of academic knowledge in postgraduate development and support.

_____ _____

Participant's signature Date

SECTION A:

Name of your organisation	
Branch details/location	
Your name	
Email address	

SECTION: B

Kindly complete one return for each institution that you select below to enable me to synthesize and analyse data accurately.

Please insert an 'x' next to the institution you have audited in the last five years

NAME OF INSTITUTION	x
Nelson Mandela Metropolitan University	
Rhodes University	
University of Forte Hare	
Walter Sisulu University	
Central University of Technology	
University of the Free State	
Tshwane University of Technology	
University of Johannesburg	
University of Pretoria	
University of South Africa	
Vaal University of Technology	
University of the Witwatersrand	
Durban University of Technology	
Mangosuthu University of Technology	
University of Kwazulu-Natal	
University of Zululand	
University of Limpopo	
University of Venda	
North-West University	
Cape Peninsula University of Technology	
University of Cape Town	
University of Stellenbosch	
University of Western Cape	

NB: THIS PAGE WILL BE REMOVED BEFORE THE QUESTIONNAIRE IS SENT FOR ANALYSIS.

Please answer the questions below in respect of ONE of the institutions you selected above.

Please do the same for each institution selected.

	YES	NO
1. Did the institution apply the recognition criteria for property, plant and equipment in terms of AC123 (IAS 16)?		
2. Did the institution have an asset policy?		
3. Were assets classified into significant different depreciable categories?		
4. Were the useful lives reviewed annually?		
5. Were assets classified according to their components?		
6. Were residual values of assets reviewed by the university?		
7. Did the institution carry out impairment testing on assets?		

Please provide any other comment/s

_____

_____

_____

_____

_____

_____

Thank you for taking the time to complete this questionnaire.

LIST OF FIGURES AND TABLES