

**THE RELATIONSHIP BETWEEN ACCOUNTING INFORMATION AND  
PERFORMANCE MANAGEMENT IN THE NORTHERN CAPE PROVINCIAL  
LEGISLATURE**

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## **Declaration**

“I declare that the field study hereby handed in for the qualification Master’s in Business Administration at the UFS Business School at the University of the Free State is my own independent work and I have not previously submitted the same work, either as whole or in part, for a qualification at/in another university/ faculty.

I also hereby cede copyright of this work to the University of the Free State”

**Signed** : \_\_\_\_\_

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**Date** : November 2014

**For Waseela, Tyler and Tyrese**

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# CHAPTER 1: INTRODUCTION TO THE STUDY

## 1.1 INTRODUCTION

It is inherently more difficult to measure performance and make an evaluation of management success in the public sector than it is in the private sector (Pauw, Woods, Van der Linde, Fourie, & Visser, 2009: 122). According to Pauw *et al.* (2009:122) this is because the measure of success, 'the bottom line', is not profit in the public sector but rather service delivery. Performance in the public sector is therefore measured in terms of the **economic**, **efficient** and **effective** (three E's) use of resources in order to achieve the service delivery output (The National Treasury, 2010). In South Africa, the public sector uses the modified cash basis of accounting to report financial outcomes, and the full cash basis for budgeting. Measuring efficiency is difficult when the cash or modified cash basis of accounting is used to report on the use of financial resources, as this basis does not provide the information necessary for the public sector to operate efficiently and effectively (Van der Hoek, 2005:35).

According to Pauw *et al.* (2009:147), the primary performance reports produced are statements comparing the budgeted income and expenditure with actual income and expenditure on the modified cash basis. Fixed or moveable assets are neither recorded as such in the accounting systems, nor reported in the statement of financial position. Fixed assets are however reported in the disclosure notes to the annual financial statements. This means that financial performance is currently being measured in terms of the public sector's ability to spend the cash appropriated in the budget. However, this is problematic since this does not provide the public sector institutions with the information required to make an assessment on the efficient and economical use of resources. Information presented in cash basis reports are at risk of not being comparable to previous years. Capital payments made are written off in the same year, and even though the asset might be in use in future reporting periods, the statement of financial performance will not recognize this. This highlights Van der Hoek's (2005:36) concern that the information is not useful in assessing performance, since the use of

assets in a year in which they are not paid for is not counted as an input resource, and when they are paid for they could be over counted.

In Sweden, where cash based accounting was replaced by accrual accounting in the public sector, the most important official reason that was put forward with the reform was that accrual accounting supported the performance management system (Paulson, 2006:48). Barton (2005:138) reported that accrual accounting was adopted to enhance efficiency, effectiveness and accountability in the Australian public sector. In the same paper Barton (2005:155) concludes that while the intention for the public service to use private sector standards is 'courageous', they are not as effective as desired. This is because the standards are sector-neutral, and they ignore the difference in roles and environments of the public and private sector. Sector-neutral standards imply that the same accounting standards are used in both the private and public sector. This argument is supported by the findings of Baskerville & Newby (2002), which came to the same conclusion.

The relationship between the information produced by the public sector accounting systems and its usefulness in managing the resources of the public sector in terms of the three E's is of importance to this study. The focus of the study is to conduct a comprehensive investigation into the relationship between cash-based accounting information and performance management (three E's) in the Northern Cape Provincial Legislature.

## **1.2 PROBLEM STATEMENT**

Besides matters relating fraud and corruption, the Northern Cape Provincial Legislature received an unqualified audit opinion on its financial statements for the year ended 31 March 2012 (The Auditor-General, 2012 report). In the same report the Auditor-General reported that profound deficiencies exist in the Northern Cape Provincial Legislature's performance information which was published in its annual report. In summary the Legislature could account for its expenditure in terms of the approved budget, but could not produce a reliable report in terms of performance output. Clearly the financial resources have been employed, but the level of effectiveness, efficiency and economy

of use of resources cannot be readily assessed. On 13 November 2009 in the Government Gazette Notice 136 of 2009, notice was given of the proposed legislation, The Northern Cape Provincial Legislature Financial Management Bill, 2009. In terms of section 6 and 7 of this bill, senior management will be compelled to use resources effectively, efficiently and transparently and an annual assessment of performance in terms hereof will have to be made. The requirement to measure performance exists already, but if this proposed legislation gets enacted, it will become a legal requirement.

A preliminary literature study revealed that a major cause for this problem is that the cash basis accounting does not provide information to assess the management of financial resources in terms of the three E's. To assess the performance of the government or its unit, users need information in terms of the economy and efficiency of operations and how well goals and objectives are met; this includes information about service efforts, costs and accomplishments (Internal Federation of Accountants, 1991:12).

A preliminary investigation was conducted with four managers in the Northern Cape Provincial Legislature. The purpose of this investigation was to substantiate the existence of the problem as well as evaluate the participants' perception of the root cause of the problem. The investigation included face to face interviews with two senior managers and telephonic interviews with two managers. The interviews revealed that management does recognize the obligation to manage resources in terms of the three E's, but it also revealed that managers does not have a formal system to measure and correlate the use of financial resources to performance outputs as was stated in their interview feedback:

*'Actually, no formal mechanism is in place to measure how much financial resources were employed in reaching performance targets.....'*

*'Those reports (reference to current financial reports) are irrelevant and sometimes overly complicated. They do not give a clear indication on all the resources used to achieve performance goals.'*

*'I rely on the reports that are produced by Financial Services, but I have a feeling that sometimes they exclude expenditure already committed, they are outdated and don't assist much with efficiency and effectiveness decisions'.*

The participants' response when asked about possible solutions, revealed the use of an improvement system of reporting accounting information could yield solutions to the problem. The responses included:

*'The standards used in the private sector appear to be working well for them.....Maybe if we could use something similar the situation will improve...'*

*'The state demands a world class financial reporting standard from private companies, but fail to implement these themselves.... Just look at the requirements of the Companies Act'.*

From the participants' reactions it became evident that the current system of financial reporting does not support the ability to manage performance in terms of the three E's and that a system more closely linked to the private sector model of reporting might be helpful in improving performance reporting and ultimately performance itself.

The preliminary investigation also included questionnaires in an attempt to rank the most significant contributors to misalignment of financial resources used, to performance outputs achieved. The questionnaires were distributed to 10 managers (middle and senior management) with a response rate of 70%. A Likert scale was used to identify the most relevant aspects of financial management that impacts performance management. (1-strongly disagree, 2-disagree, 3-neither agree or disagree, 4 – agree, 5- strongly agree)

The top three ranking responses are as follows:

1. Financial reports in its current form contribute to poor performance reporting outcomes (mean 4.28).
2. Financial outcomes and performance outcomes are not clearly linked (mean 4).

3. Introduction of accrual accounting reports should enhance performance management and reporting (mean 3.57).

The participant's responses as well as the data from the questionnaire support the data in the preliminary literature study.

Given the above mentioned problems, the following questions arise:

- Which specific elements in the current (cash) basis of accounting make performance reporting, in terms of the three E's problematic, with specific reference to the Northern Cape Provincial Legislature?
- Is the accrual system of accounting a 'silver bullet' solution to providing information to make an assessment on performance management in the Northern Cape Provincial Legislature?
- What management action and resources are required at the Northern Cape Provincial Legislature to provide accounting information which can improve efficiency and effectiveness in the use of resources to achieve outputs?

Following this, the major hypothesis of this study is that the introduction of accrual accounting principles in the Northern Cape Provincial Legislature will improve performance outcomes of the Northern Cape Provincial Legislature.

### **1.3 AIM AND OBJECTIVES**

The primary aim of this study is to explore the relationship between accounting information and performance outputs in the Northern Cape Provincial Legislature in order to present a framework where the use of resources can be linked to outputs.

From the above the following objectives are derived:

- To provide a theoretical framework for the relationship between accounting information and performance output reports.

- To assess the current system of accounting, the information produced in terms thereof and its usefulness in the performance reporting in the Northern Cape Provincial Legislature.
- To conduct an inquiry into the best practices from using the accrual accounting system.
- To develop a management framework for the implementation of a system of accounting that provides more useful information in performance management.

#### 1.4 THEORETICAL FRAMEWORK

The proposed study focused on the relationship between financial accounting information and performance management in terms of the three E's. A widely accepted definition of the accounting process, according to Marshall, McManus & Viele, (2008:3) is the *identification, measurement and communication* of economic information about an organization for the purposes of making informed decisions and judgments.

According to Pauw *et al.* (2009:122) the management's success in the public sector is measured in terms of the three E's. In the light of scarcity of resources and the multitude of needs in the public, managers should keep the three E's in mind in their use of public resources.

According to the Organization for Economic Cooperation and Development, (1994:38):

- *Economy* may be defined as obtaining inputs or resources of appropriate quality at the least cost.
- *Efficiency* is the relationship between outputs (or volume of service provided, or some other workload measure) and the resources used to produce them.
- *Effectiveness* is arguably the most important element of value for money in the public sector. Goods or services may be provided economically and efficiently but, if they do not achieve their intended objective (outcome), the resources used will be largely wasted.

For the purpose of the proposed study, the definitions and process frameworks were taken to mean that the information communicated by the accounting process is used by the decision makers (managers) to make informed choices which relate to performance management in terms of the three E's, since the definitions of each element requires some consideration of inputs (financial resources) and outputs (performance) to successfully measure performance.

This study does not propose a deviation from the theoretical framework as stated above, but rather an examination of the extent and impact of changing the system of *identifying, measuring and communicating* economic information about the Northern Cape Provincial Legislature on performance management.

Currently the Northern Cape Provincial Legislature uses the modified cash basis of accounting to identify measure and communicate economic information. In accordance to this basis of accounting the effects of transactions and other events are recognized when cash is received or paid and they are recorded in the accounting periods and reported in the financial statements in the period in which cash flows occurred.

Accrual accounting on the other hand requires that the effects of transactions and other events are recognized when they occur, irrespective of cash flows, and are recorded in the accounting period and reported in the financial statements of the period to which they relate.

This study therefore proposed to investigate, within the broad theoretical framework, the possible impact on performance management under the accrual accounting system in the Northern Cape Provincial Legislature.

Cash and full accrual represent two end points on a spectrum of possible accounting and financial reporting bases (Van der Hoek, 2005:34). This means that cash and full accrual would represent two extremes in possible choices of an accounting basis with the modified cash basis, being closer to the cash basis than the full accrual. Van der Hoek's statement highlights a shift from the cash to the accrual basis of accounting and would by no stretch of the imagination be an easy transition.



According to Van der Hoek (2005:34), the most important reason for a move from cash to accrual accounting is that it is expected to lead more insight into the costs of government, which in turn leads to more efficient management of the public sector. Heald (2003:2) reported that implementation of accrual accounting and budgeting in the public will make a difference to organizational performance, but also concedes that more research is required to make a determination of the extent of that difference.

Carnegie & West (2003:83) argue that accrual accounting will benefit the public sector in terms of optimizing outputs; however modification and augmentation of accrual accounting practices are required for its use and introduction to be successful. This study advocates for a movement from the sector-neutral approach to an accounting standard setting. This would mean that accounting standards would have to take into account the unique circumstances of the public sector.

Tickell (2010) reported on the factors that hampered implementation of accrual accounting in the Fiji public sector. His study found the following factors which resulted in the slow implementation:

- Government attempted too much change too soon.
- Incorrect software was purchased.
- High reliance on international consultants that did not understand the circumstances in Fiji at the time.
- Low skills base for public service accountants.

Tickell's study highlighted that to change bases of accounting is not a simple process.

## **1.5 RESEARCH DESIGN**

In order to satisfy the aim and objectives stated in this study, both quantitative and qualitative research methods were applied. This type of study is best suited in the post-positivistic paradigm of research design. Given that most data in the accounting field of study is of a quantitative nature, one could easily mistake this type of research for

having a quantitative design. In this instance the researcher was interested to determine the effect the presentation of accounting information has on management decisions in the Northern Cape Provincial Legislature, with specific reference to performance management (use of financial resources).

### **1.5.1 A literature study**

For the purpose of providing a theoretical foundation to understand the relationship between accounting information and performance output reports, a detailed literature review was undertaken.

### **1.5.2 Data collection techniques**

#### **a) Questionnaire to support Quantitative methods**

The first group of specific participants for this research was selected from within the management team of the Northern Cape Provincial Legislature. The specific group of managers, those with the designation responsibility and program managers are relevant to this research study.

Data was collected from this group in the form of self-administered questionnaires. Questions will be closed and participants are presented a set choice of responses. A Likert scale was used to identify the most relevant aspects of financial management impacting on performance management and to determine the relationship between the concepts.

#### **b) Semi-structured interviews to support Qualitative methods**

The second group of specific participants for this research study were selected from a group of Chief Financial Officers in Provincial Legislature's which have transitioned from cash to accrual accounting reporting frameworks. These participants are considered experts in the field applicable to this study. An interview guide was prepared, which focused on producing information that could be analysed qualitatively.

### **1.5.3 Data analysis**

The data analysis was done according to the grounded theory approach (Bryman & Bell, 2007:585), and was analyzed after the data was gathered.

## **1.6 ETHICAL CONSIDERATIONS**

The researcher is employed at the Northern Cape Provincial Legislature, and while this provides required access to sample population and secondary data, it also poses an ethical dilemma because the position undermines independence of the researcher. Notwithstanding, the researcher will remain as independent as possible, and has always made this fact clear to everybody during the process.

Another important consideration is the ethical treatment of participants, which was achieved through explaining the benefits of the study, explaining the participant's rights and protection and obtaining informed consent from all participants. The right to privacy of participants was fully respected throughout the study and beyond.

Furthermore the study involved financial information relating to the Northern Cape Provincial legislature and was treated with the confidentiality it deserves. In order to compensate for the risk, approval was sought and obtained from the Legislature's administrative head.

## **1.7 DEMARCATION OF THE FIELD OF STUDY**

The relevance of the financial information reported in making an assessment of the performance in terms of the three E's, fits into the field of study of accounting and financial management in the Northern Cape Provincial Legislature. The Northern Cape Provincial Legislature is an organisation of state, established by the Constitution of South Africa 1996, (Act 108 of 1996) and has its seat in Kimberley, Northern Cape, South Africa.

The researcher assessed the usefulness of the current basis of accounting used by the Northern Cape Provincial Legislature in performance reporting through qualitative

methods. The researcher further made an enquiry into the best practices from the accrual basis of accounting; once again qualitative methods were used.

The research was directed towards management of the Northern Cape Provincial Legislature. This study was done for academic purposes and was therefore subject to time and funding constraints particularly to part time students.

## **1.8 DEFINING TERMINOLOGY**

The Northern Cape Provincial Legislature uses a management accounting control system based on principles of a responsibility centre and responsibility accounting. According to Drury (2006:461), a responsibility centre can be defined as unit of a firm where an individual manager is held responsible for the unit's performance. This definition is widely accepted in the field of study of management and financial accounting, and is also the intention of the term in the Northern Cape Provincial Legislature, and is therefore acceptable for the purposes of this study.

Another term related to responsibility centers used in the Northern Cape Provincial Legislature, is program management. Typically a program manager would be accountable for the performance of more than one responsibility centre, as defined above. It follows that program managers are responsible for performance at a higher level than responsibility managers.

## **1.9 CHAPTER LAYOUT OF THE STUDY**

In order to achieve the aim and objectives of the study, the layout of the study is as follows:

Chapter 2 contains a detailed literature review of the existing research work conducted in the field of study of financial accounting systems and their impact on performance reporting.

Chapter 3 presents detailed information as collected in the qualitative research methods mentioned above. Further information on the data collection methods, sampling and analysis is provided.

Chapter 4 includes the presentation and interpretation of the research findings.

Chapter 5 concludes the study with recommendations as to what extent the application of accounting systems can be used to improve performance reporting.

## CHAPTER 2: LITERATURE REVIEW

### 2.1 INTRODUCTION

This chapter aims to provide an extensive literature review of various concepts relevant to this study, which include government performance management, accrual and cash basis of accounting as well as the role of financial reports in performance assessments.

The Northern Cape Provincial Legislature uses the modified cash basis of accounting in reporting its financial results. The aim of government accounting, according to Baboojee (2011:6), is to protect, manage and fulfill accountability in respect of public money. Public sector financial reporting is intended to provide information to users to assess the achievements (performance) of government and the costs at which this performance was achieved, essentially the economy, efficiency and effectiveness of performance costs (Granof, 1998:18). Performance in the public sector is measured in terms of the **economic**, **efficient** and **effective** use of resources in order to achieve the service delivery output (National Treasury, 2010:3).

Dittenhofer (2001:452) reports that the traditional government accounting system was developed to respond to the accountability requirements of the public, and not necessarily to promote the **economic**, **efficient** and **effective** use of resources. Van der Hoek, (2005:35) supports this view by reporting that measuring efficiency is difficult when the cash or modified cash basis of accounting is used, since this basis of accounting does not provide the information necessary for the public sector to operate efficiently and effectively (Van der Hoek, 2005:35). On the other hand, studies conducted by Barton (2005:138) and Paulson (2006:48) found that the accrual basis of accounting is adopted to support performance management and enhance efficiency, effectiveness and accountability. Marshal *et al.* (2008:17) reports that accounting has developed over time in response to the need of the users of the financial information to support decisions and informed judgments. This finding by Marshal *et al.* is particularly relevant to this study, since it is of importance to determine whether an 'evolution' in the

accounting practices at the Northern Cape Provincial Legislature will benefit the decision making process and ultimately improve performance.

Modern financial reporting systems should indeed support improved decision making and enhance accountability as well. Improved decision making enhances performance outputs and outcomes, and therefore performance management in general. Marshal *et al.* (2008:17) support this notion by stating that financial reporting is not an end in itself, but is intended to provide information that is useful in making business and economic decisions.

Clearly performance management is influenced by the type or basis of accounting used to report results, but the extent of the impact is not all that clear. As performance management is the ultimate objective and financial reporting is a means to this end, it is useful to begin with a scholarly review of the concept of performance management.

## **2.2 PERFORMANCE MANAGEMENT**

According to Mwita (2000:22) performance management is “*a multi-dimensional construct aimed at defining the outcomes of work so as to create a link to the goals of the institution, customer satisfaction and economic contributors*”. In the context of a government institution this definition implies that a performance management system should link the outcomes to the predetermined objectives (goals), the public benefit (customer satisfaction) and public funds (economic contributors) used to achieve the goals.

Grobler, Carrell, Elbert, Marx & Van der Schyf (2002:193) describe performance management as the continuous process of measuring outputs against the strategic plans and the modification of actions to achieve the goals of the institution. This definition adds the dimension of adjustment or modifications during the process. This means that the link between goals and economic contributors, described by Mwita (2000:22), is circular and requires monitoring and feedback into the system.

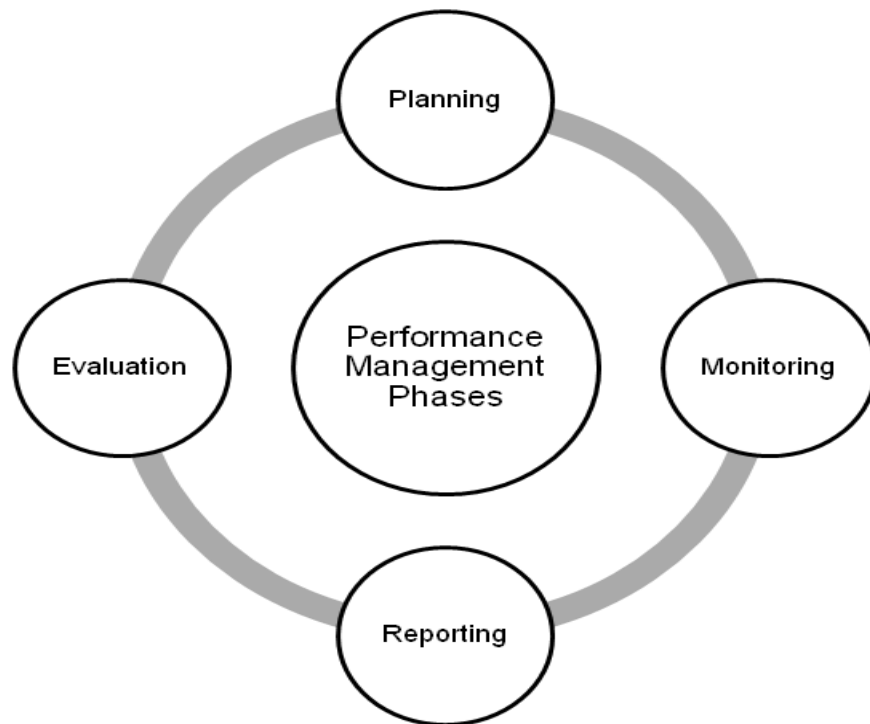
According to Marr (2009:221), performance management simply entails determining upfront what matters, collecting the correct management information to evaluate

according to the plans, and gaining insight from the management information to improve performance going forward.

The Institute for Performance Management (2011:13) defines performance management as a strategic approach to management which employs a set of tools and techniques to plan and budget, monitor and measure, report and evaluates performance in terms of indicators. A system of performance management reports on findings and determines efficiency, effectiveness and impact through evaluation.

The key elements of a definition of performance management can be summarised as a methodical approach to ensure performance improvement, through deliberate goal setting (strategic planning), measuring performance by setting indicators, collecting and analyzing data, and the evaluation and using of data for improvement. The diagram below depicts the summarized phases or functions relevant to performance management.

**Figure 2. 1: Performance Management Process**



(Source: Institute for Performance Management, 2009)



The diagram introduces the concepts of reporting and evaluation in the performance management cycle (Figure 2.1). The concept of reporting is of particular importance to this study since financial reporting and the basis hereof is central to this study. The evaluation phase is equally important since under evaluation the different results produced by different bases of financial reporting will be fed back into the planning phase.

It is also helpful to understand the literature which integrates financial and performance management systems as well as governance systems in the public service.

### **2.3 PUBLIC SECTOR PERFORMANCE MANAGEMENT FRAMEWORK**

Pauw *et al.* (2009:130-131) summarizes the critical dimensions of performance of an open and orderly performance measurement framework system as follows:

- Credibility of the budget, which should be realistic and implemented as intended.
- Comprehensiveness and transparency, including oversight and accessibility to the public.
- Policy based, which means that the budget and predetermined goals and objectives are developed and prepared in accordance with set policies and regulations.
- Predictability and control in the execution processes which includes arrangements for the exercise of control and stewardship of public funds.
- Accounting, recording and reporting, which relate to adequate records and information which is produced, maintained and reported to meet decision making control expectations. This aspect is also of importance for purposes of evaluation of performance.
- External scrutiny and audit including arrangements for scrutiny of public financial records and follow-up by the responsible executive.

These dimensions are also consistent with the definitions reported in the studies of Mwita (2000), Grobler *et al.* (2009) and Marr (2009) and do not deviate from the

phases of performance management proposed by the Institute for Performance Management (2011).

While these six dimensions of performance are all equally important to performance management in general, the dimension relating to *accounting, recording and reporting* is of particular importance to this study. This dimension will be examined later on in this study.

## 2.4 THE LOGIC MODEL PERFORMANCE INFORMATION CONCEPTS

Crawford & Bryce (2003:364) describe the logical framework approach as a hierarchy of objectives and assumptions based on cause and effect logic also known as 'vertical logical'. The Institute for Performance Management (2013:40) describes the logic model as a rationale underlying a specific intervention. It describes the link between an intervention and the requirements as well as the expected outcomes or impact. It concludes by stating that the logic model is an organizing tool that explains how a specific action works. The Institute for Performance Management (2013:40) states that the Logic Model operates on the principle that goals and strategic objectives are translated into impacts, outcomes, activities and inputs.

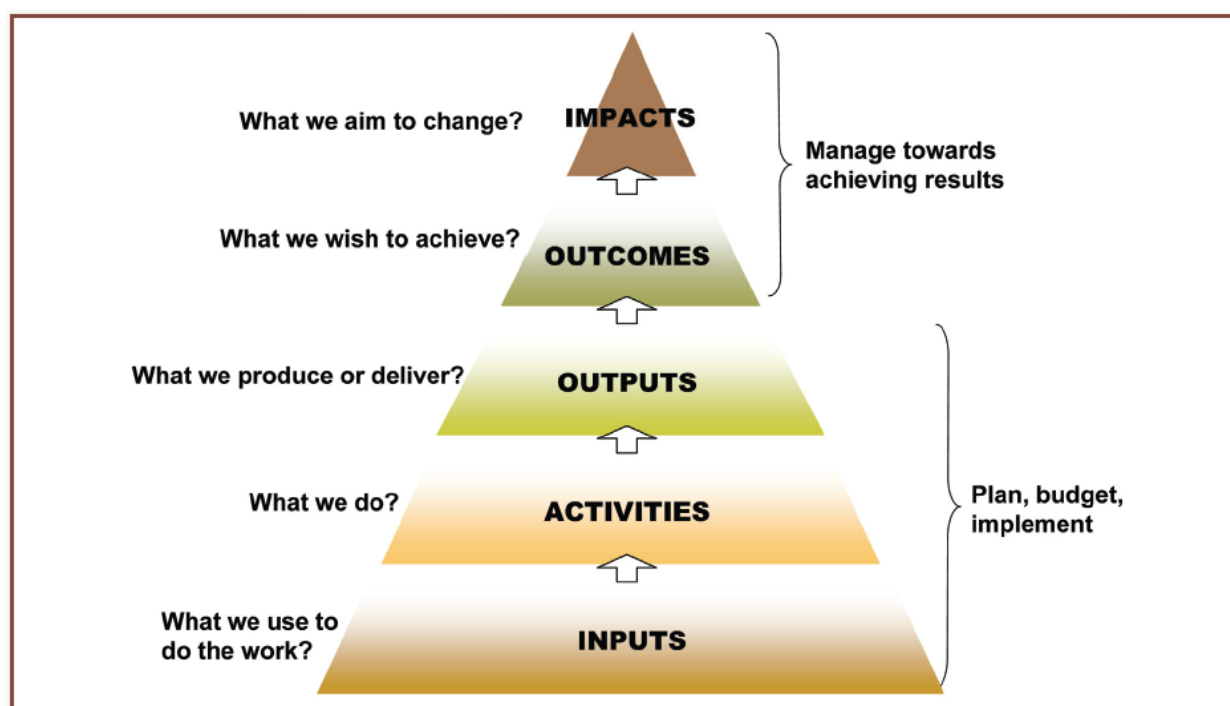
According to the National Treasury (2007:6) the concept of a logic model in the public sector application are as follows:

- Inputs are the resources that contribute to the production of service delivery outputs. Inputs also refer to '*what we use to do the work*' and include finances, personnel, equipment and buildings.
- Activities relate to the processes or actions that use a range of inputs to produce the desired outputs and ultimately outcomes. Activities describe '*what we do*'.
- Outputs relate to the final product, goods and services produced for delivery. Outputs may be defined as '*what we produce or deliver*'

- Outcomes refer to the medium term results for specific beneficiaries that are the consequence of achieving outputs. Outcomes are '*what we wish to achieve*'.
- Impacts are the results of achieving specific outcomes such as reducing poverty or creating jobs for example. Impacts are '*how have we influenced communities and target groups*'.

Figure 2.2 below places the Logic Model into perspective as applied in performance management in the public sector.

**Figure 2. 2: Logic Model Performance Information Concepts**



(Source: National Treasury, 2007:6)

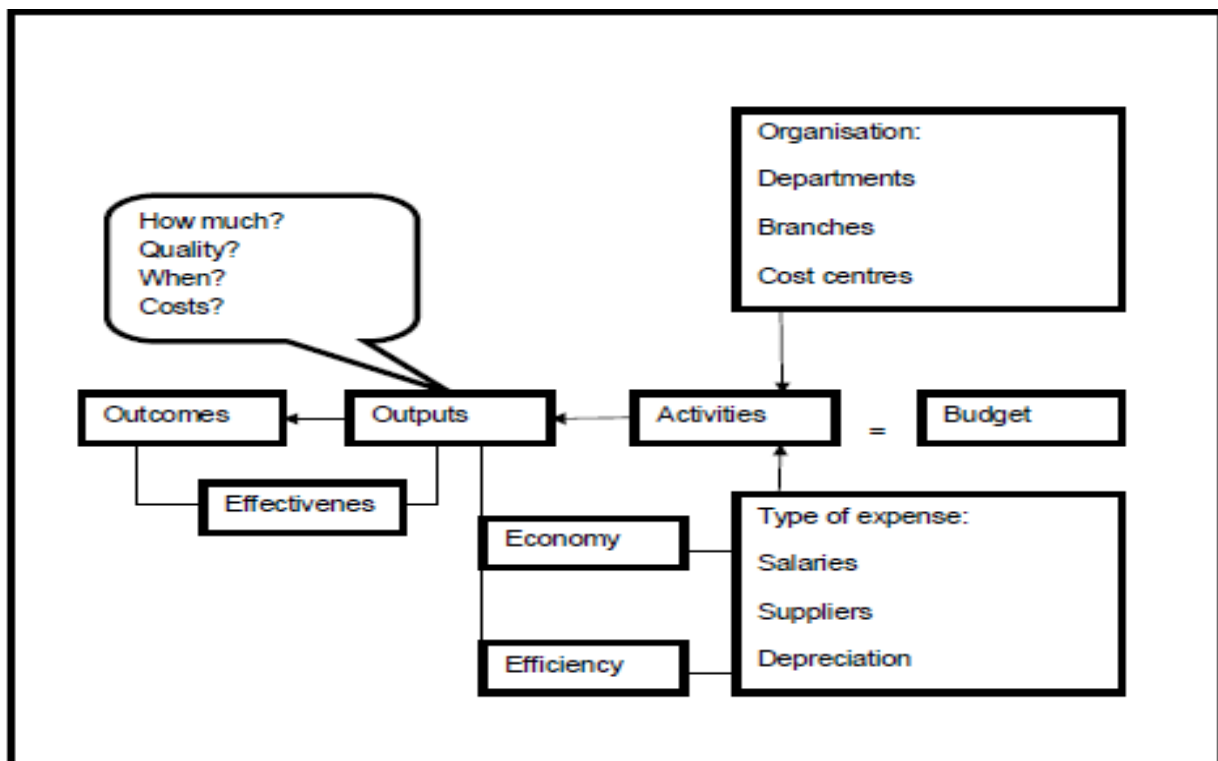
## 2.5 APPLICATION OF THE LOGICAL MODEL IN FINANCIAL MANAGEMENT

The National Treasury (2000:10) states that holding heads of departments and other officials accountable for performance, i.e. the efficient, effective, economical and transparent use of resources is more important than traditional accountability for 'compliance'. This is important to understand in order to highlight the linkages between

financial management including financial reporting, and performance management including the efficient, effective, economical and transparent use of resources.

The diagram below best illustrates how the logical model is applicable within the architecture of the Public Finance Management Act, 1999 (Act 1 of 1999), hereinafter referred to as the Public Finance Management Act (Figure 2.3).

**Figure 2. 3: Long term vision of the Public Finance Management Act.**



(Source: National Treasury, 2000:11 & Van Wyk, 2003:27)

A clear link between performance management and financial management begins to emerge in the study of the literature. Financial Management and performance management are linked at the level of activities. The following section discuss the performance management cycle, which incorporates financial management and reporting.

## **2.6 PUBLIC SECTOR FINANCIAL MANAGEMENT MODEL, INCL. PERFORMANCE MANAGEMENT**

According to Woods (2008:15) the public sector's performance management follows a three phase approach, namely the planning and formulation stages, the operational and control stages and the accountability and oversight stages.

In the first phase, policy objectives are considered, these include the legislative framework, national and provincial planning documents and government implementation plans (Institute of Performance Management 2013:63). An example would be to consider a department's legislative mandate, in the context of the National Development Plan and the Provincial Growth and Development Strategy. These considerations are then translated into strategic objectives, and initial costing is performed to determine an appropriate allocation. These strategic objectives are stated as measurable objectives over a three year period called the Medium Term Expenditure Framework (MTEF). Final costing is performed and a budget is developed which states the objectives over the next three years and the financial resources to be used over the next three years to achieve the objectives stated. These documents form the basis of planned measurable outputs (Woods 2008:15, National Treasury 2010:3-9).

The second phase, namely the operational and control stage typically indicates what happens during each year in the MTEF. This phase involves the management control function, which includes managing input costs such as personnel expenditure, inventories and working capital. This phase also includes processes such as the Supply Chain Management processes. It is characterized by planning documents such as the annual performance plan and the annual budget. Reporting during this phase takes place in the form of quarterly performance reports, which include financial information. It is worth noting that the only financial information included is a comparison between budget and actual expenditure in the quarterly reporting processes (Woods 2008:15, National Treasury 2010:3-9).

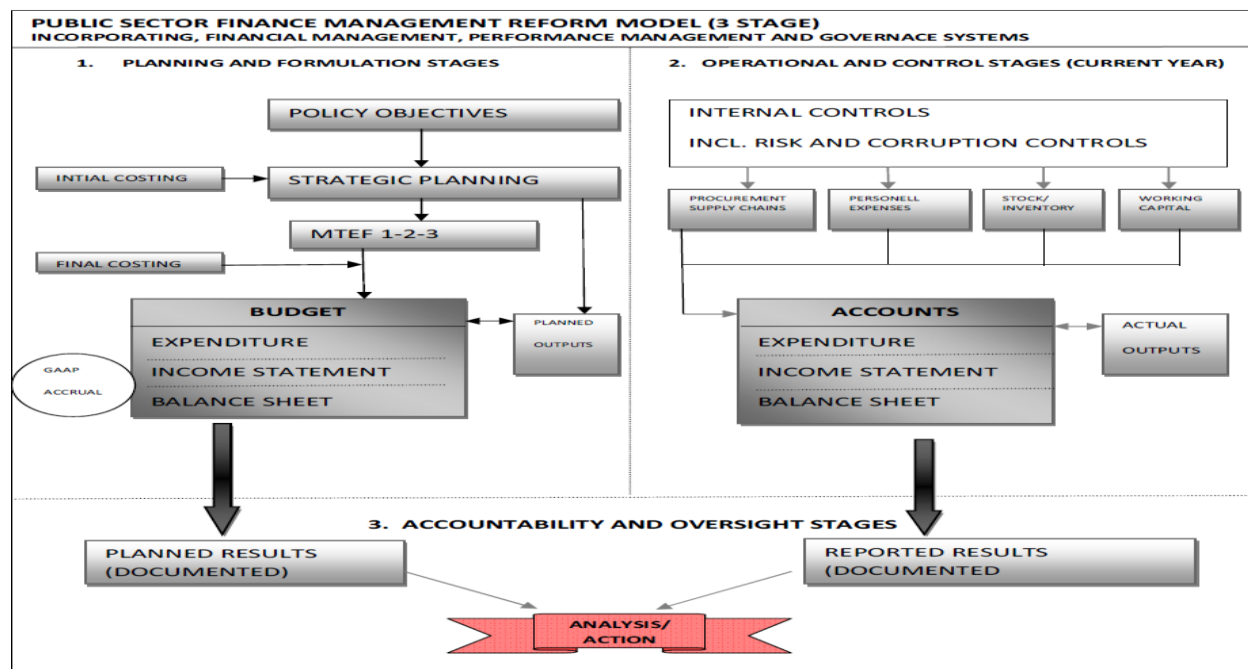
The second phase results in the production of the annual report. The annual report, according to the National Treasury (2010:9), is intended to provide information on the performance of government institutions in the preceding financial year for purposes of

oversight. The annual report contains information on predetermined objectives, the level of achievement, financial statements, audit opinions and human resource information on the institution. The annual report forms the main input of the following phase in the public sector's financial and performance management model. The annual report provides an indication of the institution's performance relative to the targets set in the annual performance plan and provides audited financial statements (Woods 2008:15, National Treasury 2010:3-9).

The third phase of the public sector's Financial and Performance Management Model relates to the accountability and oversight. It is during this phase that the institution is subjected to a performance review by oversight bodies, such as Parliament or the Provincial Legislature. Recommendations from the Auditor-General, the Audit Committee and the Standing Committee on Public accounts are taken into account. (Woods 2008:15, National Treasury 2010:3-9).

These recommendations are then fed back into the first phase in order to improve performance of the institution. Figure 2.4 below depicts the stages as discussed.

**Figure 2. 4: Public Sector Finance Management Model.**



(Source: Woods, 2010:4)

## 2.7 THE 3 E'S - EFFICIENCY, EFFECTIVENESS AND ECONOMY

Throughout the discussion on performance management in the public sector, the 3 E's have come up. These concepts are also relevant to financial management, and as discussed in Paragraph 2.5 above also form the cornerstone of the Public Finance Management Act. According to Pauw *et al.* (2009:122) management's success in the public sector is measured in terms of efficiency, effectiveness and economy, and in light of scarcity of resources and the multitude of needs, managers should keep the three E's in mind in their use of public resources.

According to the Organization for Economic Cooperation and Development (1994:38):

- *Economy* may be defined as obtaining inputs or resources of appropriate quality at the least cost.
- *Efficiency* is the relationship between outputs (or volume of service provided, or some other workload measure) and the resources used to produce them.
- *Effectiveness* is arguably the most important element of value for money in the public sector.

According to Pauw *et al.* (2009:247) the principle of value for money underpins the new performance character of a public sector budget. The principle operates in terms of achieving or improving predetermined economies and efficiencies. According to this principle, managers must constantly be seeking ways of achieving more than the budget and its underlying costing called for. This principle could be summarized as optimization of the budget, in other words procuring more than what was planned. It could be said that one has achieved value for money, when you set out to procure a vehicle with air conditioning for R50 000.00, and after the transaction one has purchased a vehicle with both air conditioning and power steering for same price.

Pauw *et al.* (2009:123) cites section 38 (1) (b) of the Public Finance Management Act, which makes the accounting officer of an institution responsible for the effective, efficient, economical and transparent use of resources. The authors make the point that the three E's are obligatory in the public service and posit that:

*“Economy is simply the principle of being cost sensitive. It requires that the costs of inputs should compare favorably with alternatives. ‘Least cost’ does not mean the cheapest item on the market, it means paying the right price for the specific item or resource that you need.*

*Efficiency means achieving maximum out for a given level of resources used to carry out an activity. It is the relationship between the output, in terms of goods and services or other results, and there sources used to produce them.*

*Effectiveness means the extent to which objectives are achieved and the relationship between intended impact and the actual impact of activity”.*

Considering the above, efficiency is essentially effectiveness divided by economy. To illustrate this consider the following example:

Assuming that an institution is required to produce Identity Document (ID) booklets, and in one period that institution produces 100 ID’s, at a cost of R100.00. R100.00 is assumed to be the most economical cost and 100 ID’s the target for that period. (Effectiveness and economy assumed). Efficiency ratio for that period would be R1.00 *i.e.* 100 ID’s divided by R100.00.

This in itself does not tell much about efficiency *per se*, but when compared to the next period, if it now costs R150.00 to produce 100 ID’s, the efficiency would be said to have declined.

Efficiency is therefore a relative determinant, with the previous ratio relevant to the current. Kloot (1999:569) illustrates the following in relation to the three E’s of financial management:

- Economy – refers to the acquisition of appropriate quality and quantity of financial, human and physical resources at the appropriate time and place and at the lowest possible cost.



- Efficiency – refers to the use of resources so that the output is maximized for any given set of inputs.
- Effectiveness – refers to the extent of the achievement of the set or predetermined outcomes.

According to Van Wyk (2003:40-41) a financial management system can only be referred as sound when its outcomes are met efficiently, economically and effectively. The author makes the point that without effectively measuring performance outcomes and reporting in respect of the three E's of financial management, overall effectiveness, efficiency and economy cannot be achieved. At this point, the golden thread that runs through performance management and financial management is clearly, the logic model and the three E's as described above.

The following sections of the chapter will focus on the accounting basis used to produce the financial information, which can be used to compare actual results to planned results, and determine if resources were used efficiently to achieve the actual results.

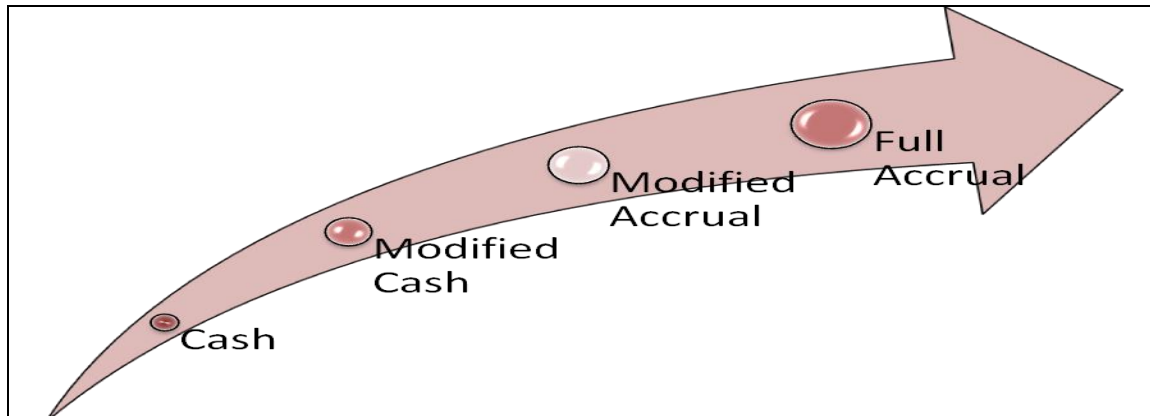
## **2.8 CASH VERSUS ACCRUAL**

The previous discussions in this chapter indicated that in order to manage performance in the public sector, robust systems of information management is required. One of these systems is the cash basis of accounting used by public institutions to manage financial information. In this regard Pauw *et al.* (2009:130-131) describe '*Accounting, recording and reporting*', as one of the critical dimensions of an orderly performance management system. The authors also list this aspect as important for managing performance and also for purposes of evaluation of performance.

According to Blöndal (2003:44) and Van der Hoek (2005:34), cash and full accrual accounting represent two end points on a spectrum of possible accounting and financial reporting bases. Granof (1998) stated that cash and accrual are two end points on a continuum of possible accounting basis, with cash accounting at the

lower end of the continuum and accrual at the higher end (Niak, 2005). This is indicated in the Figure 2.5 below.

**Figure 2. 5: Spectrum of accounting basis.**



(Source: Own Diagram)

The South African public sector, at the National and Provincial sphere currently make use of the modified cash basis of accounting. In the modified cash base of accounting, transactions are recorded primarily on the cash basis, but reported results are supplemented with accrual disclosures.

### **2.8.1 Cash Basis of Accounting**

The cash basis of accounting is an accounting methodology under which the effects of transactions are recognized when the related cash flow takes place (Monteiro & Gomes, 2013:105; Van der Hoek, 2005:34; Carnegie & West, 2003:83). Expenses and income is recorded when payments of cash receipts are made. Pauw *et al.* (2009:183) describe the cash basis of accounting more comprehensively by postulating four distinct characteristics, namely:

- Transactions and events are recognized when cash is received or paid;
- Cash receipts, disbursements and balances are measured at historical cost;
- Financial results are measured as the difference between cash received and cash disbursed and;

- Information is provided about the sources of cash that are raised, the use to which those funds are applied and cash balances at the reporting date.

Tiron, Tudor & Mutiu (1990: page 2 of 13) summarise the advantages of the cash basis of accounting as follows:

- The easiest basis to perform and
- Objectivity.

This means that those who record transactions do not require a skill in order to recognize the events that would constitute an accounting transaction. Cash flows would signal the need to record a transaction. No subjective estimation of transaction valuation is therefore required.

Champoux (2006:18) also argues that the cash basis of accounting is more transparent from a user of financial statements' point of view. This is because the users might lack clarity in understanding underlying assumptions of any other basis than cash. *Pauw et al. (2009:183)* supports this by stating that *'the cash basis provides links to budgets and appropriations and might be readily understandable and timely'*.

Diamond (2002:4) also summarises the advantages of cash accounting as follows:

- Easily comprehended by users,
- Allows measurement on compliance with budget appropriation,
- Simple to implement and
- Costs are low due to the lower level of accounting skills required.

Wynne (2004:26) suggest that cash accounting has the virtues of simplicity and objectivity, which translates into its main strength.

In terms of disadvantages of the cash basis of accounting, Diamond (2002:4) lists the limited scope as a major disadvantage. This comes from not presenting the impact of transactions resulting cash flows outside the reporting period. Cash

accounting can further not meet the demands for information on assets and liabilities, the impact of current consumption of stock held assets and stock are written off immediately when purchased. The cash basis excludes disclosure of assets in use after purchase. The cash basis of accounting ignores other resource flows, such as liabilities. According to Diamond (2002:4) cash accounting also limits management's accountability for asset and liability management.

Van Wyk (2003:131) explains the shortcomings of the cash accounting system in the public sector environment by summarizing the main deficiency to be that the cash basis of accounting measure the resources consumed during the period under review, thus actual costs are not measured, controlled and reported. Efficiency and cost effectiveness therefore cannot readily be determined. In essence this means that the cash basis measures all cash costs incurred, but does not disclose the consumption of those resources. It could be that stock was procured, but not consumed. The cash basis will record this transaction as if the resource was paid and consumed.

According to the International Federation of Accountants (1999 par.111-117) the following are the main limitations of the cash basis of accounting:

- Increasingly, users of government financial information expect governments to provide information on assets and liabilities. The cash system does not meet this requirement,
- Full financial position is not reflected,
- No control over fixed assets and current assets,
- All expenses incurred are not accounted for,
- No records of debtors and creditors are kept,
- Actual costs of services cannot be calculated and
- It cannot be used as a base for performance measurement.

Baboojee (2011:12) also list the above limitations, and goes further to state that the cash basis of accounting does not distinguish sufficiently between cash spent on running costs (operating expenses) and cash invested (capital investment) for future in capital items. Analyzing the limitations mentioned by Baboojee (2011), one can conclude that the cash accounting system is also incapable of producing information on 'return of investment' in future accounting periods, other than the period that cash was spent for investment purposes.

In spite of its limitations, cash accounting is still used as the South African provincial and national government's method of choice with some modifications to include accrual disclosures. The reasons for this could be a subject of a future study.

As mentioned, on the other end of the spectrum of possible basis of accounting is the accrual basis of accounting. The following section will discuss accrual accounting, as well as its pro's and con's with particular reference to the public sector application.

### **2.8.2 Accrual Basis of Accounting**

According to Khan & Mayes (2009:3), Diamond (2002:4) and Van Wyk (2003:ix), *'accrual accounting is an accounting methodology under which transactions are recognized as underlying economic events occurred, regardless of the timing of the related cash receipts and payment'*.

According to the Accounting Standards Board (2012:7), accrual basis are defined as follows:

*"Accrual basis means a basis of accounting under which transactions, other events and conditions are recognized when they occur (and not only when cash or its equivalent is received or paid). Therefore the transactions, other events or conditions are recorded in the accounting records and recognized in the financial statements of periods to which they relate. The elements recognized under accrual accounting are assets, liabilities, net assets, revenue and expenses"*.

Pauw *et al.* (2009:183-184) comprehensively describe the accrual basis of accounting as a system under which:

- Transactions and events are recognized when they occur, rather than when cash is paid or received.
- Assets, liabilities, revenues and expenses are recognised.
- Assets, liabilities and revenues are initially recognized on the historical cost basis, but often revalued to their fair value.
- Later the measurement focus is on economic resources or service potential and changes in these.
- Information are provided about:
  - The resources controlled by the entity,
  - The cost of operations or providing services,
  - The financial position and
  - Changes in the financial position and operational efficiency.

The saturation point in review of literature in respect of definitions for the basis of accounting is easily reached, since the acceptable definition is set by standard setting bodies such as the Accounting Standards Board.

Much scholarly debate however exists as to the benefits of the accrual system in the public sector as well as its disadvantages. The following section will explore the literature in this regard.

### **2.8.3 Arguments for and against the adoption of Accrual Accounting in the Public Sector**

According to Wynne (2004:7) the following points are put forward most often in favor of the accrual basis of accounting:

- It is said to provide more comprehensive financial information,

- It allows for better management of assets and
- It provides the full cost of public services.

Other wider advantages discussed by Wynne (2004:7-8) include that the accrual basis places greater focus on outputs than inputs. The information produced by the accrual system is also argued to facilitate better quality of management and decision making. Comparisons of the full cost of a service are made easier, as well as the comparability of performance results. Wynne (2004:7-8) highlights the fact that because the cost of capital is spread over the useful life of assets, it encourages better management. He argues that the accrual basis of accounting provides for a more reliable assessment of the financial health of the public sector.

Pauw *et al.* (2009:184) summarizes the benefits of the accrual system relative to the cash system as follows:

- It enables an assessment of the stewardship of management,
- The true cost of goods and services can be determined and
- It enables an assessment of the true financial position of the government.

In a study commissioned by the International Federation of Accountants published in January 2011 entitled *Transition to the Accrual Basis of Accounting: Guidance for public Sector Entities* (2009:12), the following benefits of reporting on the accrual basis are listed:

- It shows how the entity financed its activities and met its cash requirements.
- Allows users to evaluate the entity's ongoing ability to finance its activities
- Shows the position of an entity and changes in financial position.
- Provides an opportunity to demonstrate successful management.
- Is useful in evaluating an entity's performance in terms of its cost and efficiency.

As can be deduced from the above discussion that the accrual basis of accounting has strong advantages, yet some authors found the implementation in the public sector to be disappointing. In this regard, Wynne (2004:9) states that one of the major disadvantages with the implementation of accrual accounting is the costs involved in the implementation. These include costs associated with identifying and valuing existing assets, the development of accounting policies, establishing accounting systems, and developing the required skills on both the user and preparer of financial statements.

Another disadvantage is that the system is designed to measure profit (Wynne, 2004:9), whilst it is not the purpose of government institutions to make profit but rather to render a service. The complexity of accrual accounting might lead to less oversight by Parliament and the requirement of higher skilled staff and auditors in the public sector.

#### **2.8.4 Challenges for the public sector in the implementation of accrual accounting**

Heald (2003:2) accepts that the implementation of accrual accounting and budgeting in the public sector will make a difference to organizational performance, but also concedes that more research is required to make a determination of the extent of that difference. Carnegie & West (2003:83) further argue that accrual accounting will benefit the public sector in terms of optimizing outputs; however modification and augmentation of accrual accounting practices are required for its use and introduction to be successful. This study advocates for a movement from a sector-neutral approach to an accounting standard setting. This would mean that the accounting standards would have to take the unique circumstances of the public sector into account.

Tickell (2010:78) reported on the factors that hampered implementation of accrual accounting in the Fiji public sector. In his study he found the following factors which resulted in slow implementation:

- Government attempted too much change too soon,
- Incorrect software was purchased,



- High reliance on international consultants, which did not understand the circumstances in Fiji at the time and
- Low skills base for public service accountants.

Tickell's study highlights that changing the bases of accounting is not a simple process. Baboojee (2011:44) argues that on a normative assessment, accrual accounting appears to be a superior model than the cash basis of accounting, however at a practical level implementation is a heavy load. Baboojee (2011:44) found that countries that have implemented it at a central government level have generally been disappointed with end results. While Baboojee concedes that the argument is not whether accrual is better than cash, it is more about whether the benefits exceed the cost of implementation and whether conditions for transition is appropriate. Baboojee (2011:48) cannot confirm the hypothesis that the accrual basis is a superior model for addressing performance challenges.

## **2.9 CONCLUSION**

It is clear from the literature that performance management and financial management are linked and that the information produced by the system of financial management is relevant and has an impact on the assessment of performance in the public sector.

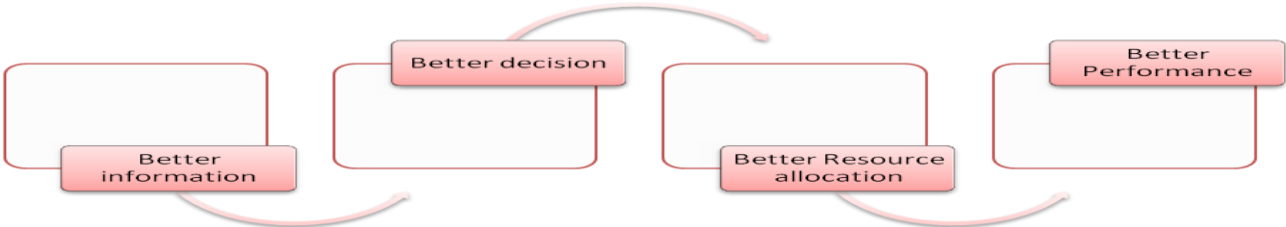
The models described also demonstrate that the information produced by the financial management system is used in the decision making. While the cash basis of accounting is much simpler to execute and understand, the limitation of input in decision making is a serious downside. This coupled with its inability to present an assessment of true cost of service, and indirectly efficiency and cost effectiveness makes it an undesirable model. Theoretically the accrual system of accounting is a superior model, and has greater advantages in terms of performance management as well as measurement.

While little or no empirical evidence can be presented to confirm that accrual accounting has delivered its expected benefits, cognizance must be taken of the fact that where accrual accounting was implemented, it was done as part of a wider set of reforms and it was difficult for the researchers to link increases in performance to the implementation of the accrual accounting alone. None the less, the legislative requirement for the

Northern Cape Provincial Legislature to prepare financial statements on the accrual basis remains.

The value proposition that states that better information ultimately leads to better performance forms the basis of this study. This can be seen in Figure 2.6 in the flow chart below.

**Figure 2. 6: Value Proposition.**



(Source: Adapted from Baboojee, 2011:26)

## **CHAPTER 3: RESEARCH METHODOLOGY**

### **3.1 INTRODUCTION**

This chapter sets out the research design which will be used to meet the aim and objectives of the study. The data collection strategy is presented, as well as sampling procedures. The questionnaire is also given in this chapter as well as an elaboration on semi structured interviews. Since a mixture of qualitative and quantitative methods will be used in this study, the research design section will elaborate extensively on the application of mixed methods. The chapter also highlights some of the ethical considerations and concludes with limitations. A logical starting point is to highlight the aim and objectives of the study.

### **3.2 AIM OF THE STUDY**

The primary aim of this study is to explore the relationship between accounting information and performance outputs in the Northern Cape Provincial Legislature in order to present a framework where the use of resources can be linked to the outputs.

### **3.3 OBJECTIVES OF THE STUDY**

The following are the objectives of the study:

- To provide a theoretical framework for the relationship between accounting information and performance output reports.
- To assess the current system of accounting, the information produced in terms thereof and its usefulness in performance reporting in the Northern Cape Provincial Legislature.
- To conduct an inquiry into best practices by using the accrual accounting system.
- To develop a management framework for the implementation of a system of accounting that provides more useful information in performance management.

### **3.4 RESEARCH DESIGN**

In order to satisfy the aim and objectives stated in this study, a combination of qualitative and quantitative methods will be applied. The combination of the qualitative and quantitative research methods is also known as a mixed method approach to

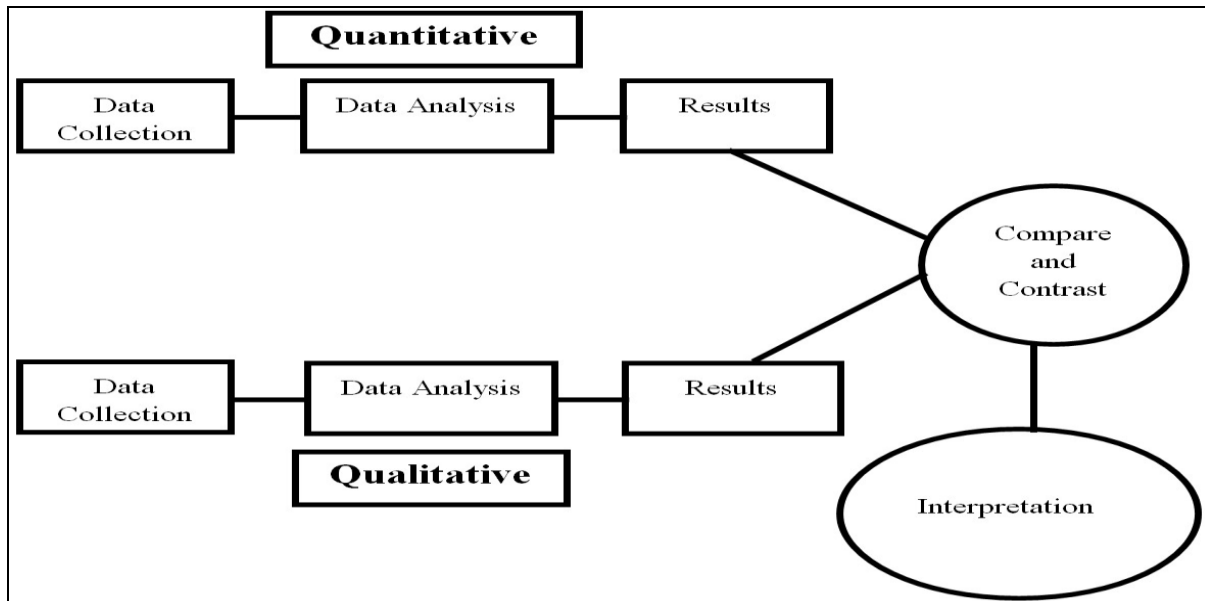
research (Cooper & Schindler 2011:182). Scholars such as Bryman & Bell (2007:646) refer to this method as triangulation which entails using more than one method or source of data in the study. Henning, van Rensburg & Smith (2005:103) states that triangulation indicates that information is coming from various points or angles towards a measured position, which leads to finding the true position. Cooper & Schindler (2011:182) cite increased perceived quality and validation of qualitative finds as the main advantages of following a mixed method.

This study is conducted in the arena of business research. According to Cooper & Schindler (2011:183) four common strategies exist in combining methodologies in business research. These are as follows:

1. Qualitative and quantitative studies can be conducted simultaneously.
2. A Qualitative study can be ongoing while conducting multiple waves of quantitative studies in order to measure changes in behavior and attitudes over time.
3. A qualitative study can precede a quantitative study, and a second qualitative study then might follow the quantitative study seeking more clarity.
4. A quantitative study can precede a qualitative study.

In this study the first strategy will be followed, in that qualitative and quantitative work will be conducted simultaneously. Figure 3.1 below sets out the architecture of the triangulation design applicable to this study.

**Figure 3. 1: Congruent Mixed Methods Model.**



(Source: adapted from Creswell, 2012:5)

This type of research design is not without some shortcomings. According to Jick (1979:609) the replication of the study is difficult, in particular the qualitative element of the study. Bryman & Bell (2007:413) added to this by stating that mixed methods are likely to consume more time and resources and therefore dilute the research effort due to the spreading of limited research resources. While these shortcomings are a reality, replication can be regarded as an absolute necessary step in scientific research, while in business or administrative studies, it is not a popular exercise. The time and resource limitation remains a reality and the researcher will ensure appropriate balance.

### **3.5 APPLICATION OF RESEARCH DESIGN CHOICE TO RESEARCH AIMS AND OBJECTIVES**

Table 3.1 below indicates the specific type of research methodology applicable to the aims and objective.

**Table 3. 1: Application of Research design to study.**

<b>Research aim/objective</b>	<b>Research methodology</b>	<b>Data collection method</b>
Explore the relationship between accounting information and performance outputs in the Northern Cape Provincial Legislature in order to present a framework where use of resources can be linked to outputs.	Quantitative method	Self-administered survey in the form of a questionnaire.
To provide a theoretical framework for the relationship between accounting information and performance output reports	Qualitative method	Literature review (see Chapter 2).
To assess the current system of accounting, the information produced in terms thereof and its usefulness in performance reporting in the Northern Cape Provincial Legislature.	Quantitative method	Self-administered survey in the form of a questionnaire.
To conduct an inquiry into the best practices from using the accrual accounting system.	Qualitative method	Semi-structured interview process.
To develop a management framework for the implementation of a system of accounting that provides more useful information in performance management	Qualitative method	Semi-structured interview process.

(Own table)

### **3.6 DATA COLLECTION STRATEGY**

As mentioned in the previous section both quantitative and qualitative research methods will be applied in this research study. This necessitates a dynamic data collection strategy, which includes data to satisfy both applications of research methods. This study will target two specific groups of participants.

### ➤ **Questionnaire to support Quantitative methods**

The first group of specific participants for this research was selected from within the management team of the Northern Cape Provincial Legislature. The specific group of managers is those with the designation responsibility and program managers. These managers have the required authority to make recommendations and approve expenditure, as well as overall responsibility for performance within a specific program. A more detailed explanation of the functions of the program and responsibility managers follows in the section on sampling design.

Data will be collected from this group in the form of self-administered questionnaires. Questions will be closed questions where participants are presented with a set choice of responses. A Likert scale will be used to identify the most relevant aspects of financial management impacting on performance management and determine the relationship between the concepts. According to Bryman & Bell (2007:241-242) the advantages of a self-administered questionnaire are as follows:

- Cheaper to administer,
- Quicker to administer,
- Absence of interviewer effect,
- No interviewer variability (Questions are not asked differently) and
- Convenience for respondents.

Bryman & Bell (2007:242-243) also list some disadvantages, which the researcher needs to be aware of when managing a self-administered questionnaire. These are:

- The researcher cannot prompt,
- The researcher cannot probe,
- Questionnaires can be read as a whole, thus risking independence of responses,
- Participants do not know answers and requests someone else to answer,
- Increased risks of missing data and
- Low response rates.

In order to compensate for these disadvantages, the researcher in this study has obtained permission from the Administrative Head of the Northern Cape Provincial Legislature to present the questionnaires in a group gathering of participants. While this approach might be confused with a focus group discussion, it most certainly is not. The approach is more a matter of convenience. The idea is to get all participants together with the sole purpose of having them complete the questionnaire. This is useful as the researcher will be available to the group to ask clarity questions regarding the questionnaire. The strategy also provides an opportunity for the researcher to ensure completeness of the questionnaire and a high response rate.

➤ **Semi-structured interviews to support Qualitative methods**

The second group of specific participants for this research study was selected from a group of Chief Financial Officers in the Provincial Legislature which have transitioned from cash to accrual accounting reporting frameworks. These participants are considered experts in the field applicable to this study.

An interview guide was prepared, which focused on producing information which can be analysed qualitatively. According to Bryman & Bell (2007:241-483) the basic elements of the interview guide that are followed in this study are:

- A certain amount of order on the topic area is created,
- Interview questions are formulated in a way that will assist in answering them,
- Comprehensible and relevant language is used and the
- Guide does not contain leading questions.

The primary information gathered through this process relates to the impact of changing from cash accounting to accrual accounting on performance management, as well as the implementation challenges faced in the transition from cash to accrual accounting to support development of a suitable recommendation for the Northern Cape.

The interviews will be conducted personally by the researcher, recorded and transcribed. Additional notes will be taken by the researcher during the interview process to eliminate the risks of inaudible recording.



### **3.7 SAMPLING DESIGN**

Sampling entails selecting some of the elements in a population, to enable the researcher to draw conclusions about the entire population. (Cooper & Schindler 2011:364). The following sampling design is applicable to this research study.

#### **3.7.1 Sampling design applicable to Quantitative methods**

➤ ***The target population, parameters of interest and sampling frame***

As noted earlier in Chapter 1 the relationship between accounting information and performance management in the Northern Cape Provincial Legislature is of particular importance to this study. It therefore follows that those who have a particular responsibility and delegation to employ the financial resources towards the achievement of performance outcomes or goals would constitute the target population.

The Northern Cape Provincial Legislature uses a management accounting control system based on responsibility centre principles and responsibility accounting. According to Drury (2006:461), a responsibility centre can be defined as a unit of a firm where an individual manager is held responsible for the unit's performance. This definition is widely accepted in the field of study of management and financial accounting, and is also the intention of the term in the Northern Cape Provincial Legislature, and therefore acceptable for the purposes of this study.

Another term related to responsibility centres used in the Northern Cape Provincial Legislature, is program management. According to Pauw *et al.* (2009:48) program managers have delegated authority and responsibility from the accounting officer to produce a set of outputs for the various divisions of the department. Duties include driving the strategic analysis and planning for a particular service, securing the required funds and to implement the service, using effective risk management.

The total amount of responsibility and program managers in the Northern Cape Provincial Legislature constitute the target population. In terms of the approved organisational structure, three (3) program managers exist. These three program managers are supported by twenty four (24) responsibility managers. The total target

population for this study amounts to 27 population elements, which constitutes the sampling frame.

➤ ***The appropriate sampling method***

In this study purposive judgment sampling will be used. This method is considered the most appropriate since the sample frame also contains leaders of various political parties represented in the Northern Cape Provincial Legislature. The entire program consists of 4 responsibility managers and 1 program manager. The leaders of the political parties are not accountable to the accounting officer, and have no responsibility for performance outcomes of the Northern Cape Provincial Legislature from an administrative point of view. Their responsibility is solely to ensure that funds used for their political work is administered in accordance with the regulations and the law.

The criteria used for selection in this study are the responsibility and program managers who are accountable both for performance outcomes as well as the use of financial resources. The leaders of various political parties do not fall into this category.

➤ ***The required sample size***

According to Brynard & Hanekom (2006:56), when deciding on the size of the sample there are guidelines which can be followed but no fixed rules. Given the small size of the population, a guideline developed by Sekaran & Bougie (2010:293-295) will be followed in this study. This guideline was specifically designed for small sample frames. Table 3.2 sets out the required sample sizes per population.

**Table 3. 2: Sample size for a given population.**

**Table for Determining Random Sample Size from a Given Population**

(Confidence level 95%; Margin of error + or - 5%)

Population N	Sample S	N	S	N	S
10	10	220	140	1,200	291
15	14	230	144	1,300	297
20	19	240	148	1,400	302
25	24	250	152	1,500	308
30	28	260	155	1,600	310
35	32	270	159	1,700	313
40	36	280	162	1,800	317
45	40	290	165	1,900	320
50	44	300	169	2,000	322
55	48	320	175	2,200	327
60	52	340	181	2,400	331
65	56	360	186	2,600	335
70	59	380	191	2,800	338
75	63	400	196	3,000	341
80	66	420	201	3,500	346
85	70	440	205	4,000	351
90	73	460	210	4,500	354
95	76	480	214	5,000	357
100	80	500	217	6,000	361
110	86	550	226	7,000	364
120	92	600	234	8,000	367
130	97	650	242	9,000	368
140	103	700	248	10,000	370
150	108	750	254	15,000	375
160	113	800	260	20,000	377
170	118	850	265	30,000	379
180	123	900	269	40,000	380
190	127	950	274	50,000	381
200	132	1,000	278	75,000	382
210	136	1,100	285	100,000	<b>384</b>
				1,000,000	<b>384</b>
				10,000,000	<b>384</b>

(Source: Sekaran & Bougie, 2010:295)

Given that the population, excluding leaders of various political parties adds up to 23, a sample size of 21 will be selected for this study. While a total of 22 would be more appropriate, the researcher also forms part of the total population and is excluded from the sample.

### **3.7.2 Sampling design applicable to Qualitative methods**

#### **➤ *The target population, parameters of interest and sampling frame***

The secondary objectives of this study which relate to an inquiry into the best practices from using the accrual accounting system as well as that of developing a management framework for the implementation of a new accounting system, demand the application of qualitative methods of enquiry. Provincial Legislatures which have had the experience of transition from cash to accrual accounting would therefore form the target population.

South Africa is divided geographically into nine (9) provinces each with a Provincial Legislature or Parliament. Of these nine (9) provincial legislatures, five (5) have adopted accrual accounting and made a transition from modified cash to accrual accounting. The total target population for this study therefore amounts to 5 population elements, which constitutes the sampling frame.

#### **➤ *The appropriate sampling method***

For purposes of the qualitative study, convenience sampling will be used. Since the researcher has to travel to conduct semi-structured interviews, the closest geographical province will be selected as well as the province that the researcher regularly visits for other purposes.

#### **➤ *The required sample size***

In the case of the qualitative study, only two (2) of the five (5) samples will be selected to conduct semi-structured interviews. This approach is acceptable as Henning *et al.* (2005:72) argues that qualitative research is more concerned with in depth analysis of a phenomenon, than with the amount of participants who share an opinion on a matter.

### **3.8 DATA ANALYSIS**

The researcher will perform editing of raw data, to detect errors and omission, correct them where possible in order to ensure maximum data quality standards. According to Cooper & Schindler (2011:402) key elements as part of the editing process include:

- Accuracy,
- Consistency with the intended research question and
- Uniformity of capturing of data.

Editing, in this study will take place in the form of field editing, where questionnaires are completed as well as subsequent editing. Qualitative data will be analysed by statistical methods, while content analysis will be used to analyse data obtained through qualitative methods. Analysis will also entail probing and classifying data in a way that it addresses the primary aim and secondary objectives of the study

The results of the data analysis referred to above, combined and compared with a literary review, will result in a comprehensive final assessment of data.

### **3.9 RESEARCH ETHICS**

The research study will be explained to participants in terms of the value of the study for the participant. Senior management of the Northern Cape Provincial Legislature has granted full approval for the study.

Informed consent will be obtained in the form of a questionnaire to participants. Participation in this study is completely voluntary. Confidentiality of information as well as anonymity of participants will be protected at all times.

The researcher is employed at the Northern Cape Provincial Legislature, and while this provides required access to sample population and secondary data, it also poses an ethical dilemma because the position undermines independence of the researcher. Notwithstanding, the researcher will remain as independent as possible, and will always make that clear to participants.

### **3.10 CONCLUSION**

This chapter presents an overview of the methodology of the research study. The approach to the research was explained in detail. The data collection strategy and analysis plan has also been discussed. While the limitations to methodology adopted have also been highlighted, actions to mitigate these limitations have also been highlighted. The chapter concludes with the ethical considerations applicable to this

study have also been highlighted, as well as all actions to ensure the highest ethical standards.

## CHAPTER 4: DATA ANALYSIS AND RESEARCH FINDINGS

### 4.1 INTRODUCTION

Self-administered questionnaires regarding the relationship between accounting information and performance management were circulated among the management team of the Northern Cape Provincial Legislature. Participants were briefed in a group session authorised by the Administrative Head of the Northern Cape Provincial Legislature, on the purpose and scope of the study. Discretion, confidentiality and anonymity of responses were assured to all participants. The following responses were received from the respective group of managers (Table 4.1).

**Table 4.1: Questionnaire response analysis.**

Management Group	Questionnaires sent	Completed Questionnaires returned	Percentage
Responsibility manager	18	15	83%
Accounting Officer	1	1	100%
Programme Manager/Responsibility Manager	4	4	100%
<b>TOTAL</b>	<b>23</b>	<b>20</b>	<b>87%</b>

The feedback was extremely successful; 20 of the 23 questionnaires handed out were completed and returned. This represents a response rate of 87%. The high response rate can be attributed to the fact that questionnaires was administered in a group session to the entire population (23) and that twenty one (21) of the participants attended the group session. Sixteen (16) of the respondents took the time made available to complete and return the questionnaire on the same day. Five (5) respondents however indicated that they would like to think about their responses a bit more. Two (2) questionnaires were given to the two participants who did not attend the group session, providing them individually with the same briefing. Of these seven (7) questionnaires four (4) were received after continuous follow-ups had been made.

Analysis of the data was done manually, with the assistance of a statistician from the Economic and Management Sciences facility at the University of the Free State. Tables

and graphs were obtained with the use of the Microsoft Excel program. The reliability of the scales was tested by calculating the Cronbach's alpha of the questions. The Cronbach alpha determines the reliability of the scale used and it tests whether or not the items used for a construct/variable actually measure that particular construct. Table 4.2 sets out the Cronbach's alpha for the two variables relevant to this study, namely Accounting Information and Performance Information. Since both values are above 0.5, the conclusion can be made that a reliable scale was used.

**Table 4.2: Cronbach's alpha.**

<b>Variables</b>	<b>Cronbach's Alpha</b>
<b>Accounting</b>	0.604
<b>Performance</b>	0.640

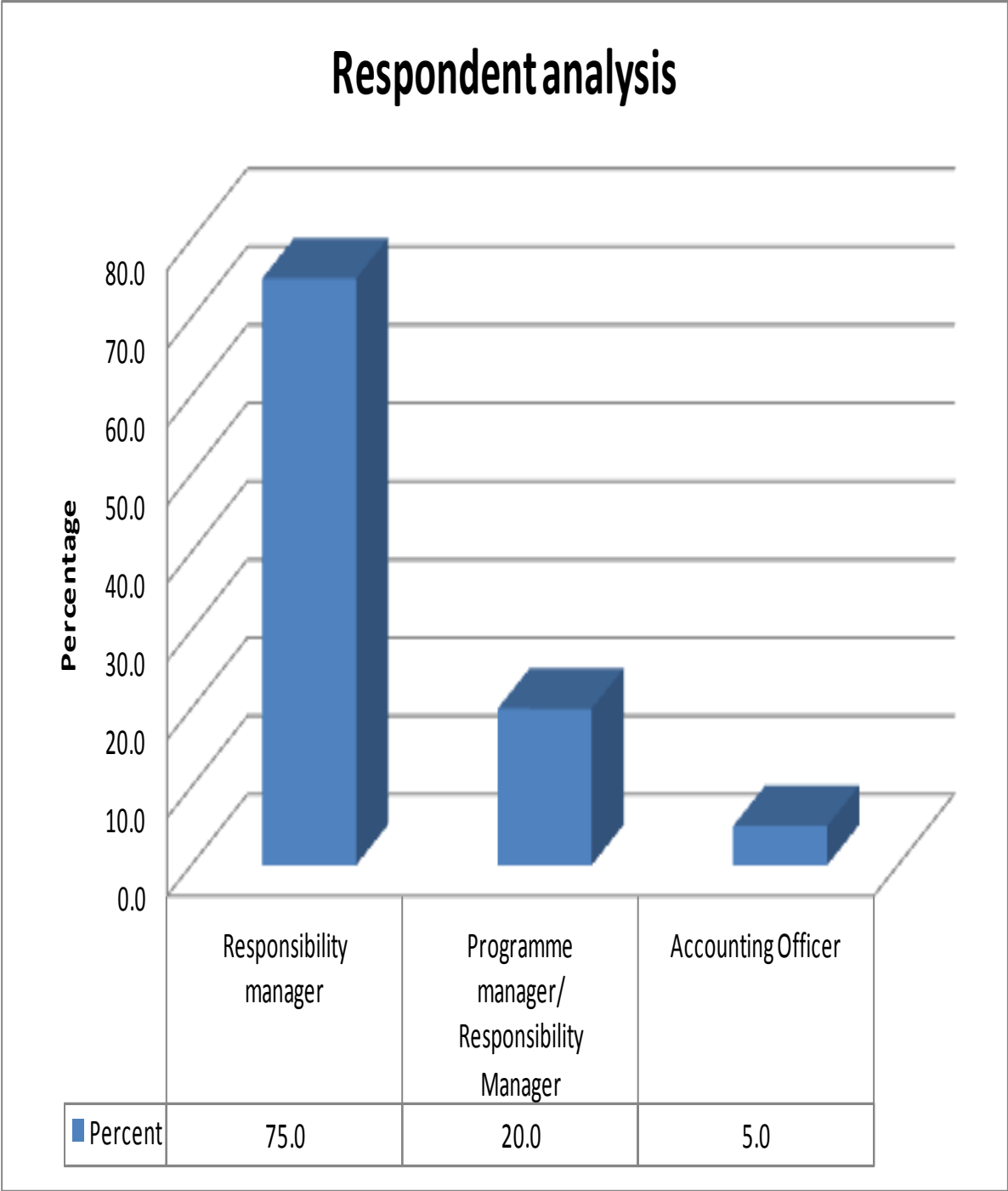
In addition to the questionnaires, semi-structured interviews were conducted with the Chief Financial Officers of two provincial legislatures which have already implemented accrual accounting. The purpose of the interviews was to obtain more in-depth qualitative information. An interview guide was prepared (see Annexure 2) and used to guide participants through the interview. The participants were interviewed telephonically, and the researcher noted the responses in writing. The data was analysed manually and reported in terms of each participants view.

#### **4.2 RESPONDENT ANALYSIS**

Figure 4.1 represents an analysis of respondents of the study in terms of their management role.



**Figure 4.1: Analysis of respondents of the study.**



75 % of the respondents are responsibility managers, 20% are program managers and 5% are in the role of accounting officer. According to the program structure of the budget (see Chapter 1), the accounting officer is responsible and accountable for all the

desired outputs and the use of resources of the Northern Cape Provincial Legislature. The outputs to be delivered are divided into main divisions/programs and program managers, who report to the accounting officer, and are responsible for the outputs and the utilisation of resources to achieve the outputs. The main divisions are further broken down into sub-programs, for which responsibility managers are appointed. The following figure presents the hierarchal relationship explained above (Figure 4.2).

**Figure 4.2: The hierarchal relationship of management in the NCPL.**



The percentage of responses per group of management correlates with the relationship between the different role players. This means that the higher percentage of questionnaires received from the responsibility managers relative to program managers confirms the validity of the results of this study.

### **4.3 ANALYSIS OF THE QUESTIONNAIRES**

A Likert scale was used to measure the participant's perception of the quality of information currently available to them to make management decisions which involve the use of financial resources to achieve performance outcomes.

#### **4.3.1 Quality of financial information**

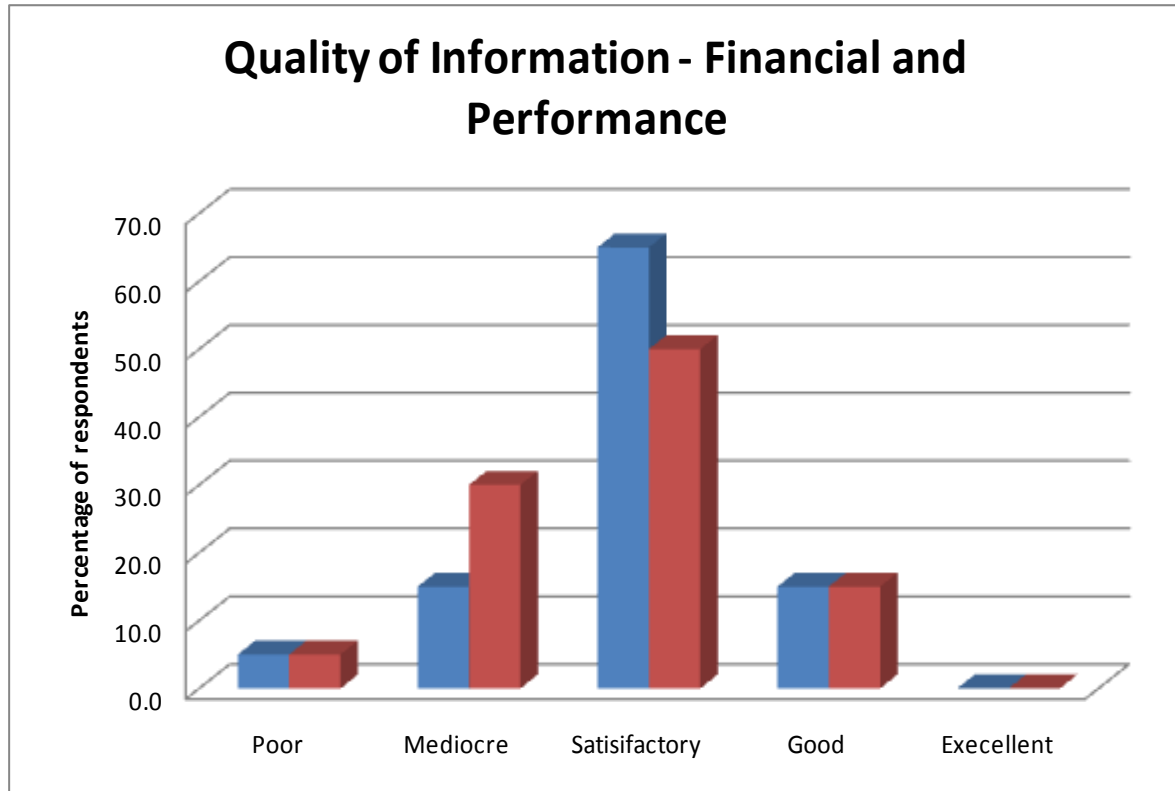
When asked about the quality of financial information on a scale of one (1) to five (5), where one represents poor and five represents excellent and three (3) the midpoint representing satisfactory, a mean of 2.900 was calculated and a factor value of 0.475. This represents a lower factor value, in that the majority of the respondents are of the view that the quality of financial information in the current form is of a poor quality, since the mean is below the point where respondents are at least satisfied with the quality of the financial information.

#### **4.3.2 The quality of performance information**

In terms of performance information, a mean of 2.750 was calculated from the responses on the Likert scale. A factor value of 0.438 was calculated which is below 0.5 and meaning that the majority of the respondents consider the quality below satisfactory.

The graph below provides an indication of the quality of both the financial and performance information according to the opinion of respondents (Figure 4.3).

**Figure 4.3. The quality of information in the Northern Cape Legislature**



An analysis of participants' responses indicates that they rate both the quality of financial information and performance information below satisfactorily. In addition the quality of performance information is rated lower than that of financial information. It is worth noting that no respondent rate the quality of either the financial information or performance information as excellent.

#### **4.3.3 The efficiency and effectiveness of the link between performance objectives and financial information**

The respondents were asked to rate the efficiency and effectiveness of the link between performance outcomes and financial information. The purpose of this question was to determine whether the financial information in the current system is sufficiently linked to the performance outcomes. According to the Likert scale used for this study the mean value for this question calculated is 2.250, with a low factor value of 0.313. This means that the majority of the respondents are of the view that the link between the financial

information and performance information is below satisfactory and responses gravitate towards mediocre and poor.

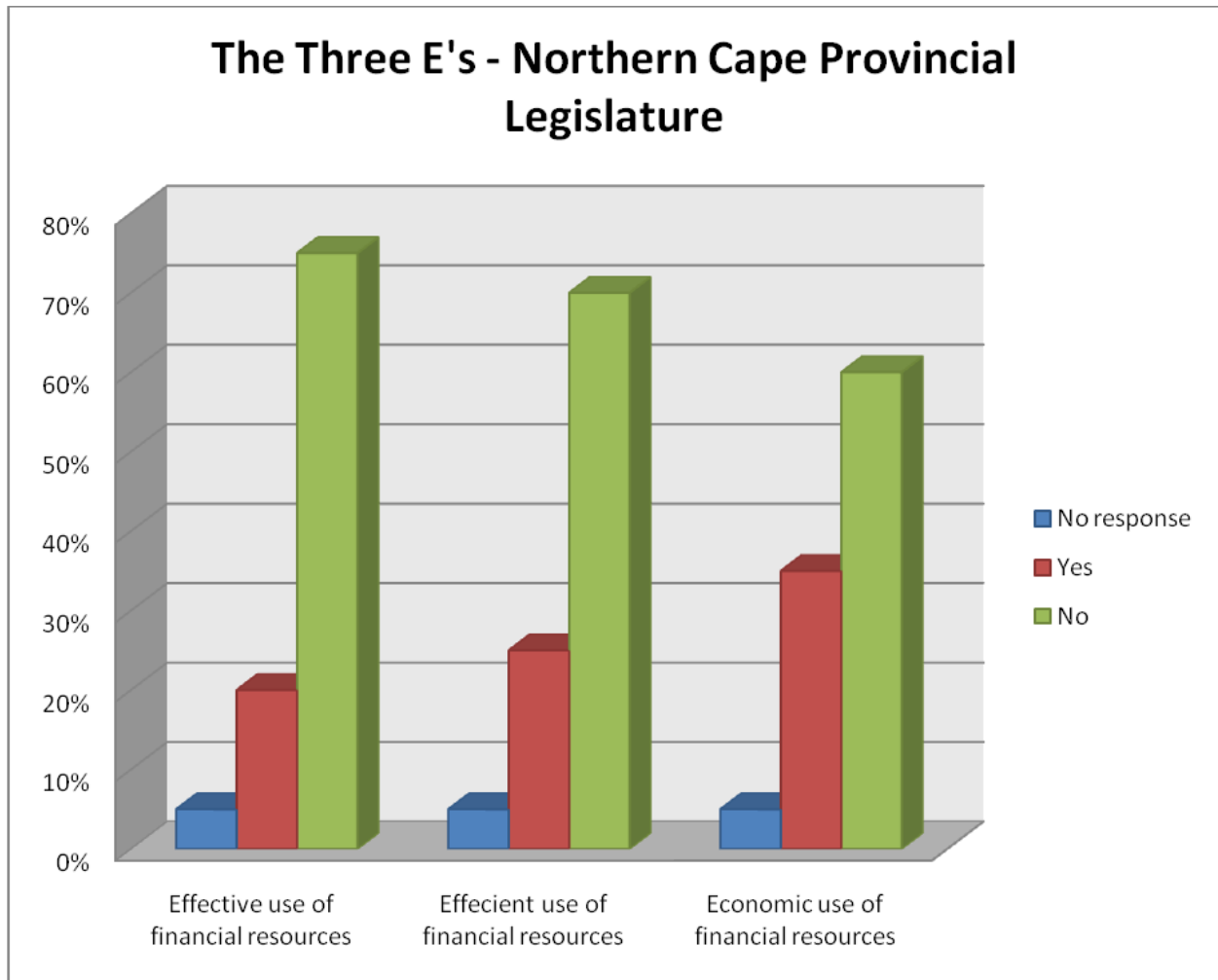
#### **4.3.4 Are financial resources used towards attainment of stated objectives – efficient, effective and economic.**

The study revealed that 75% of the respondents believe that financial resources are not effectively used towards the attainment of the stated performance objectives. It was further indicated that only 25% of the respondents are confident that the financial resources are efficiently used, while 60% of the respondents stated that resources are not economically employed towards the stated objectives. Five percent (5%) of the respondents chose not to complete the specific section relating to the three E's: effectiveness, efficiency and economically.

The study reveals that the management of the Northern Cape Provincial Legislature is not doing well in terms of managing its resources. Figure 4.4 illustrates the total response when presented with the question of whether financial resources are efficiently, effectively and economically.

According to Pauw *et al.* (2009:122) the management's success in the public sector is measured in terms of efficiency, effectiveness and economy, and in light of scarcity of resources and the multitude of needs in the public sector, managers should keep the three E's in mind in their use of public resources. According to section 38 (1) (b) of the Public Finance Management Act, 1999 (Act 1 of 1999) the accounting officer of an institution is responsible for the effective, efficient, economical and transparent use of resources which makes the three E's obligatory in the public service. The situation as per the findings of the study in the Northern Cape Provincial Legislature seems to contradict this requirement.

**Figure 4.4: Effectiveness, efficiency and economic use of resources in the NCPL.**



#### **4.3.5 Factors that contribute to an unqualified audit opinion on the financial statements, but a qualified opinion on its performance information**

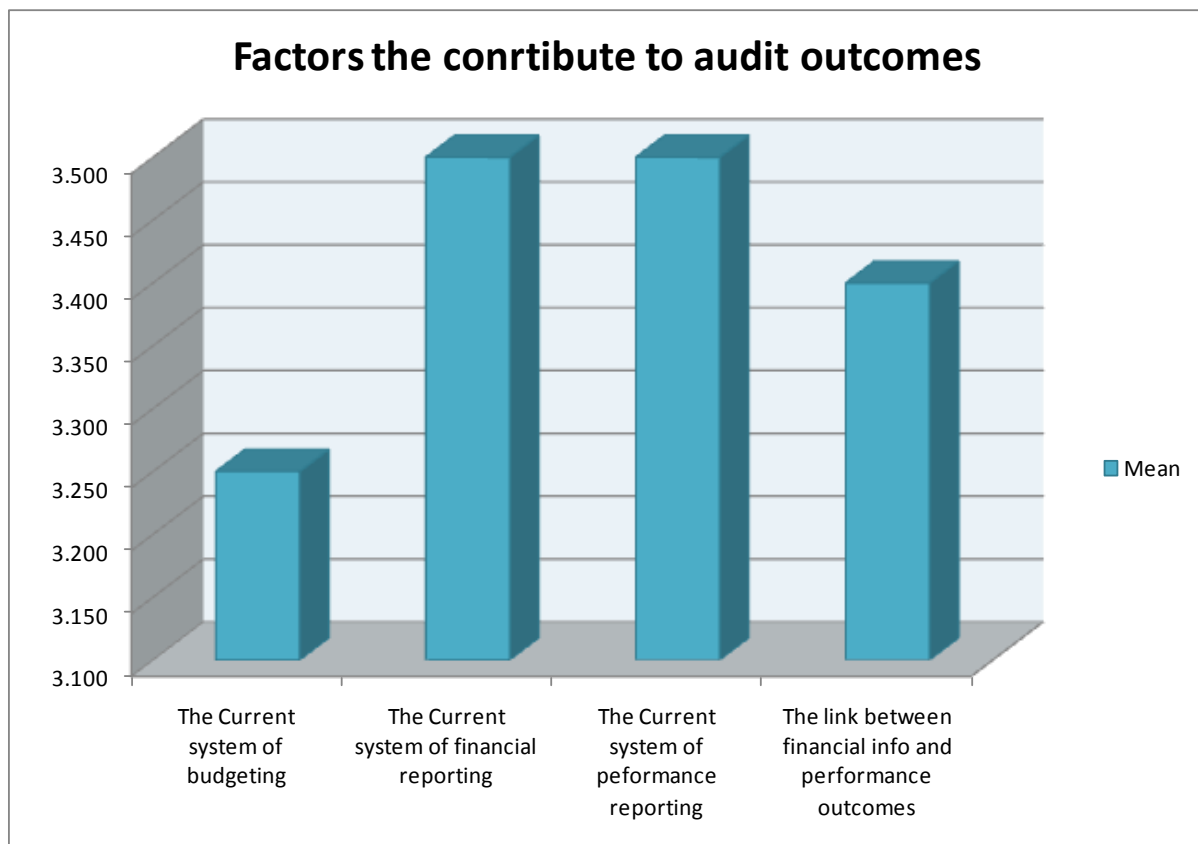
The purpose of this question was to determine which factors contribute to the fact that a qualified opinion was received for performance information by the NCPL. An importance rating on a Likert scale, with 1 representing not important and 5 representing very important was obtained of the factors which contribute to the above. A factor value of 0.563 was calculated for budgeting as a contributing factor. A factor value of 0.625 was obtained in respect of financial reporting (Cash Accounting) and performance reporting. The link between financial information and performance

information was rated with a factor value of 0.600. All factor values calculated for the contributing factors are high (>0.5). The contributing factors in order of importance are:

1. The current cash system of financial reporting and the current system of performance reporting (0.625).
2. The link or association between the system of financial reporting and the performance reporting system (0.600).
3. The current system of budgeting (0.563).

The factors, that respondents consider to be the most important contributors to a qualified audit opinion on performance information correlates with the factors that the respondents viewed as poor quality information (both performance and financial) in 4.3.1 and 4.3.2 above. Figure 4.5 depicts the results discussed here.

**Figure 4.5: Factors that contribute to unqualified financial audit opinion, but qualified performance reports.**

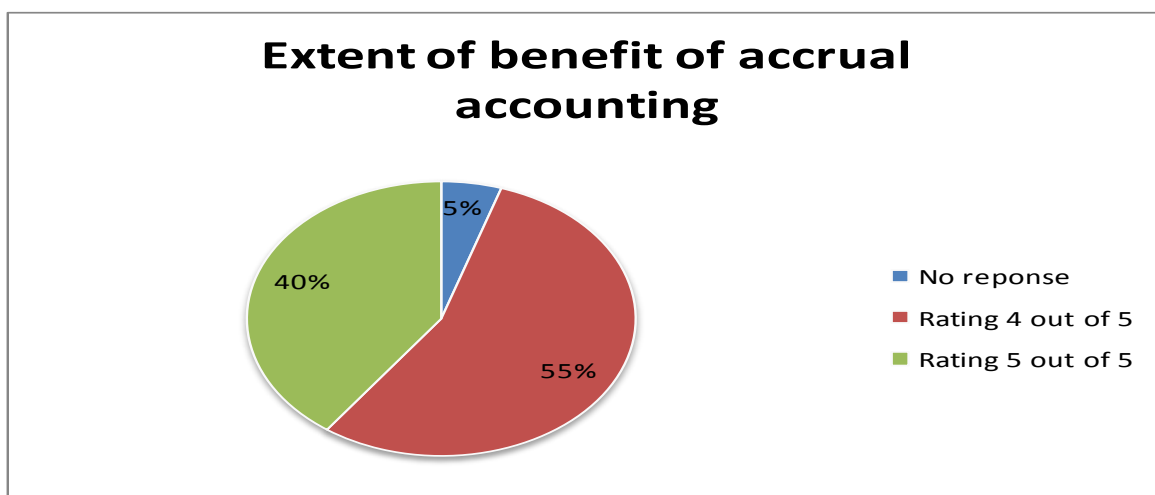


#### 4.3.6 Will the accrual basis benefit management decision making as opposed to the cash basis

The aim of this question was to determine if the accrual basis of accounting will benefit the decision making by management in the Northern Cape Provincial Legislature. All of the respondents (100%) are of the opinion that the implementation of accrual accounting in the Northern Cape Provincial Legislature will benefit management decision making as opposed to the current cash basis. The extent to which respondents felt that the introduction of accrual accounting will benefit management decisions was measured on a Likert scale of one (1) to five (5) with one (1) representing a small or lesser extent and five (5) representing a large extent.

55% of the respondents rated the extent at a four (4) on the Likert scale and 40% of the respondents rated the extent at five (5) on the Likert scale. A mean of 4.200 was calculated for this question, with a high factor value 0.800. This means that the overwhelming majority of participants agreed that the introduction of accrual accounting will benefit them in terms of the management's decision making. Figure 4.6 below represents the extent to which participants felt that the introduction of accrual accounting will benefit the Northern Cape Provincial Legislature.

**Figure 4.6: The extent to which accrual accounting will benefit the Northern Cape Provincial Legislature.**





### 4.3.7 An accrual accounting system will lead to an improvement in performance outcomes for the Northern Cape Provincial Legislature

This question sought to determine if an accrual accounting system will lead to an improvement in performance outcomes for the NCPL. From the responses received, a factor value of 0.788 was calculated on a Likert scale from one (1) to five (5). One (1) on the scale was no, three (3) was the midpoint (maybe) and five (5) represented yes definitely. The mean calculated here were 4.150. None of the respondents chose a value of less than three, 20% were not sure, 45% responded with a yes and 35% indicated yes definitely. Figure 4.7 below represents the responses discussed above.

**Figure 4.7: The relationship between accrual accounting and performance information.**



While 20% of the respondents were not sure, no respondent indicated that accrual accounting will not improve performance outcomes. A total of 80% of the respondents

indicated that an investment in accrual accounting will, to varying extents, lead to the improvement of performance outcomes.

#### **4.3.8 The features of a good system of financial and performance management**

The purpose of this question was to determine what the features of a good system of financial and performance management is. Respondents were requested to rate specific features that was identified in the literature review on a Likert scale from one (1) to five (5), where one (1) represents not an important feature and five (5) represents an important feature. The following features as identified in the literature review were rated through the questionnaire:

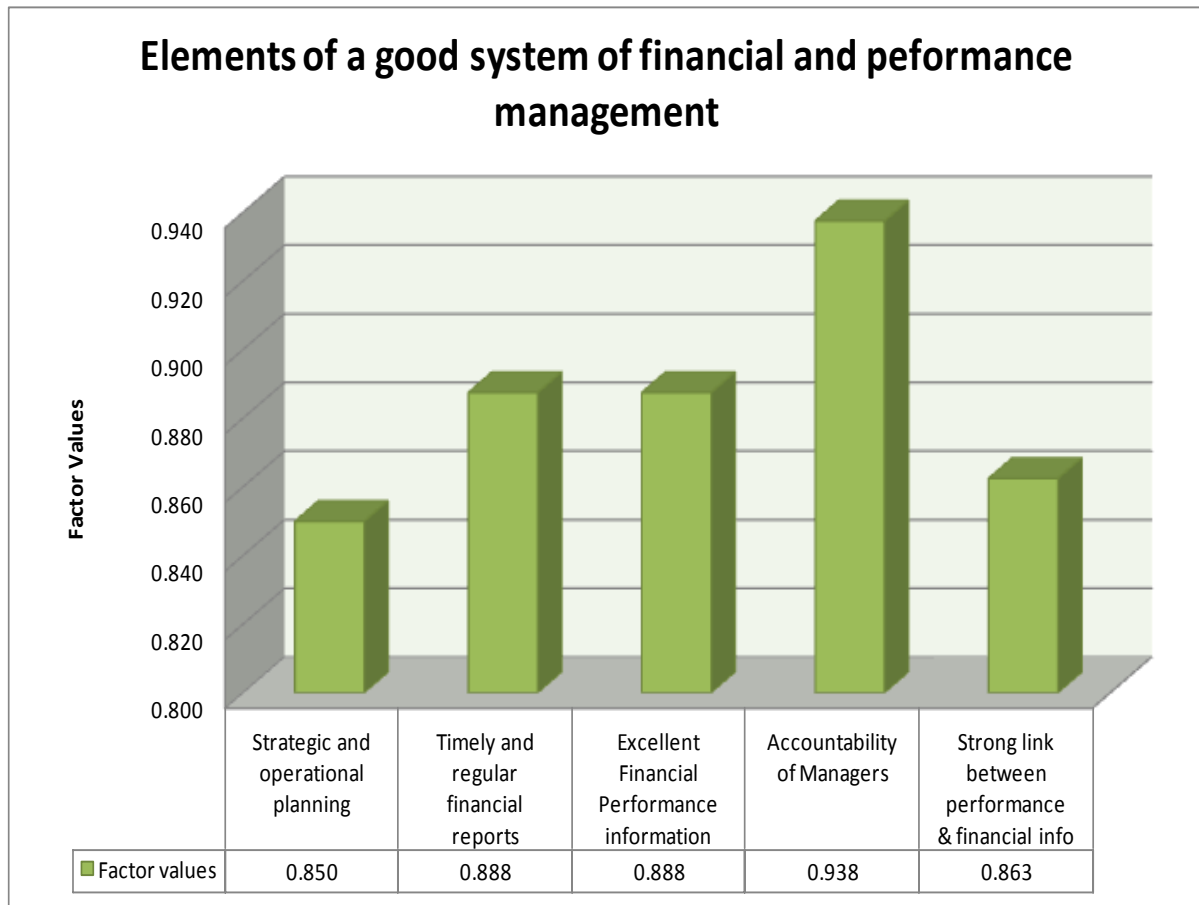
- Strategic and operational planning.
- Timely and regular financial reports.
- Excellent information produced by the system.
- Accountability of managers.
- A strong link between performance information and financial information.

The mean calculated from the responses for each feature is as follows:

- Strategic and operational planning - mean of 4.400.
- Timely and regular financial reports - mean of 4.550.
- Excellent information produced by the system - mean of 4.550.
- Accountability of managers - mean of 4.750.
- A strong link between performance information and financial information - mean of 4.450.

The factor values calculated for this question are presented in Figure 4.8 below.

**Figure 4.8: The elements of a good system of financial and performance management.**



All the features were rated of high importance with all the mean values above 4.400 on a five point scale. All factor values are calculated above 0.850 which mean that the overwhelming majority of respondents agree that all these features are of high importance for a worthy system of financial and performance reporting.

The aspect that is considered most important by the respondents in the study is the accountability of managers. This means that respondents are acutely aware of the fact that systems alone do not produce results, but that the implementers (managers) of the systems play a critical role, and in the opinion of respondents the most important role, in ensuring desired performance outcomes.

#### **4.3.9 Possible implementation problems of an accrual accounting system**

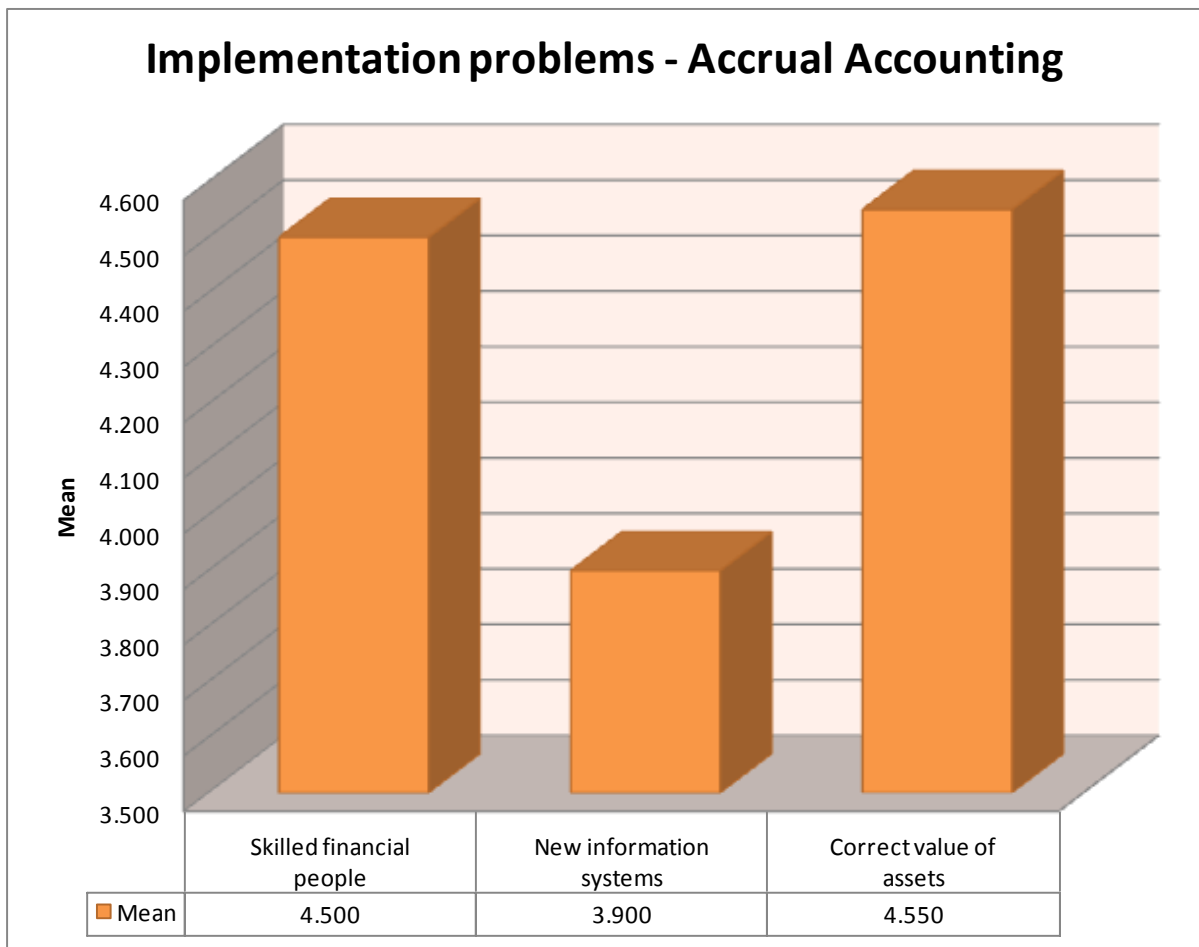
The aim of this question was to determine what the main problems facing the NCPL with the implementation of an accrual accounting system may be. Identifying such questions beforehand will assist in planning and finding possible solutions to whatever will prevent successful implementation. The study revealed that the following issues could impact negatively on the implementation of an accrual based accounting reporting system.

- A need exists for properly skilled people in the finance section. This concern relates to the fact that the current financial staff in the Northern Cape Provincial Legislature is trained and experienced in the cash basis of accounting and might require retraining on the accrual basis.
- A need exists to procure an information system which can handle the requirements of accrual based reporting.
- The conversion of assets at the correct value could prove problematic given the past practice of writing off assets when purchased.

The participants rated the impact of these issues on a Likert scale of one (1) to five (5) with one (1) representing a small or lesser impact and five (5) representing a substantial impact. Figure 4.9 summarises the mean values calculated for each potential problem.

As can be noted, all means are higher than the midpoint of three (3), this means that most respondents rate the possible implementation problems with high importance. The most important concern of respondents is the need for skilled financial officials and ensuring that the conversion of the assets to the accrual basis is done correctly. Both these items were rated with a mean of 4.500 on a scale of one (1) to five (5).

**Figure 4.9: Implementation problems - Accrual Accounting.**

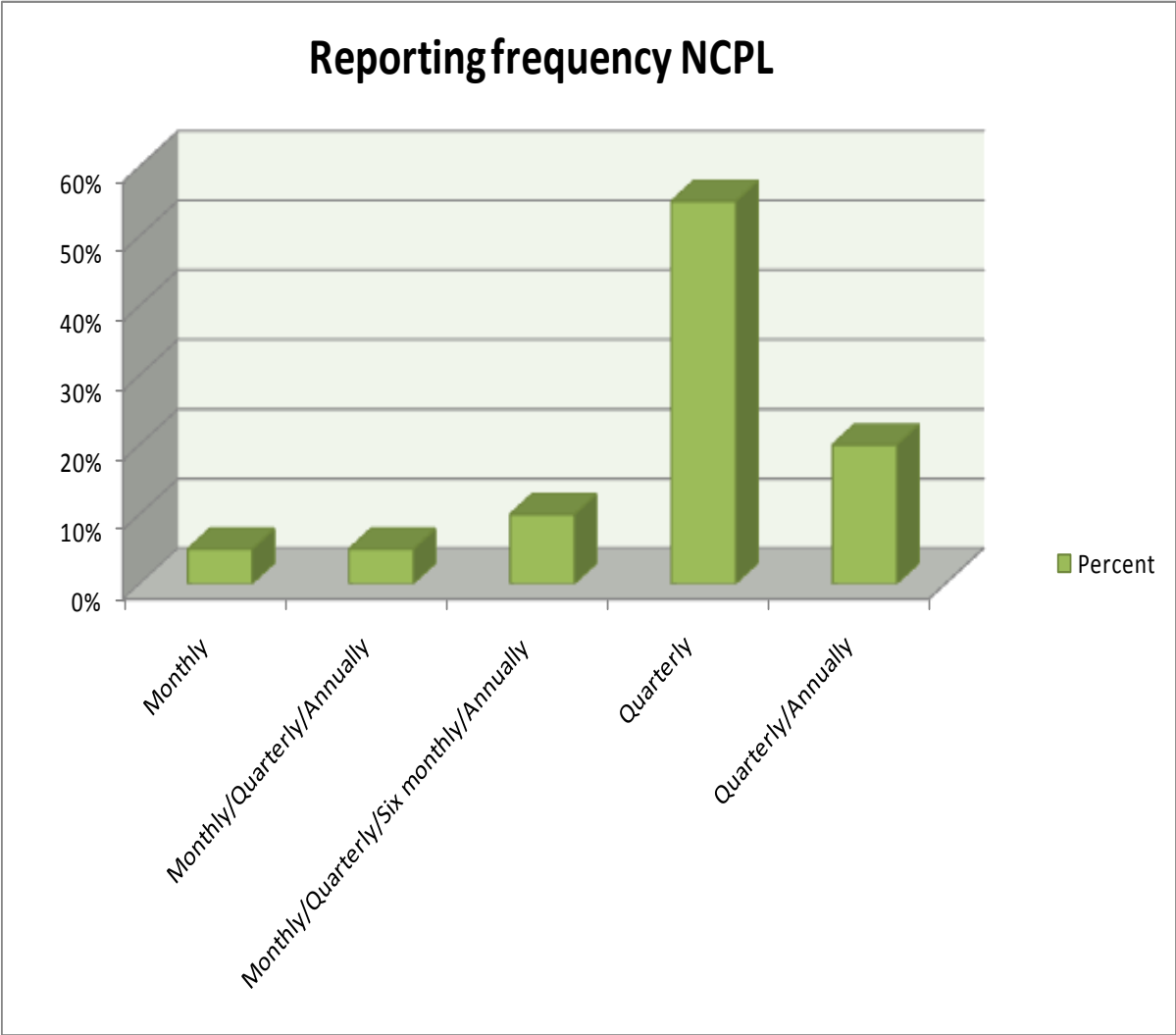


#### **4.3.10 Frequency of reporting**

The purpose of this question was to determine how frequent internal financial and performance reporting is taking place in the Northern Cape Provincial Legislature. Coupled with information available to make management decisions, is the frequency with which these reports are made available. The empirical study also measured the existing reporting frequency with which management received information critical to making decisions which affect the performance outcomes.

In Figure 4.10 below the reporting frequencies in the Northern Cape Provincial Legislature as received by respondents are indicated.

**Figure 4.10: The frequency of reporting in the Northern Cape Provincial Legislature.**



A total of 90% (of which 20% include annual reporting) of the respondents indicated that formal reporting takes place on a quarterly basis. 20% indicated that monthly reporting is coupled with quarterly reporting, while 10% indicated that midyear reports are produced in their respective sections and 20% of respondents prepared formal annual reports. 65% of the respondents believe that the reporting frequency should be increased to enable better decision making.

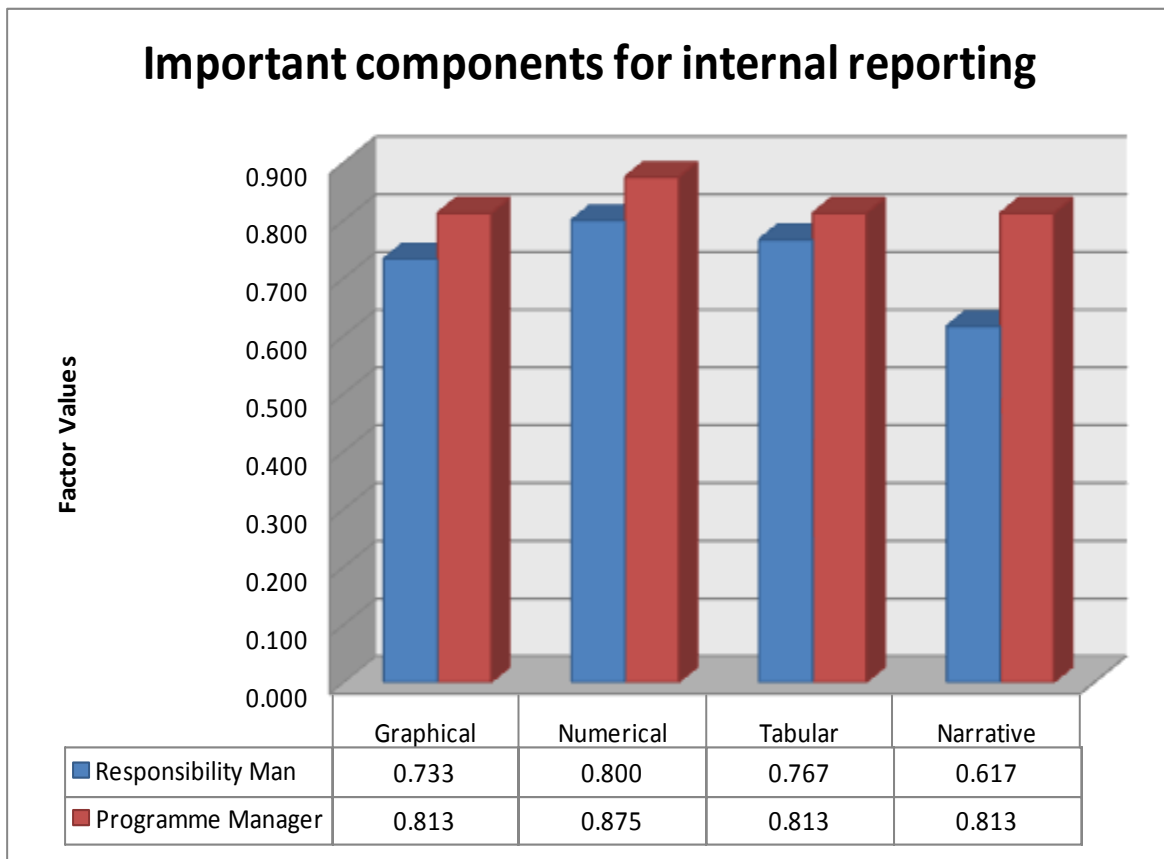
Quarterly reporting seems to be the overall standard frequency of reports for both financial and performance information. This means that most financial decisions that impact the performance are at the worst 3 months old. Furthermore, the lack in

performance reports indicates a manager might only see the results of a management decision six months (two quarters) later.

#### 4.3.11 Importance of certain components of reporting to management

The purpose of this question was to determine how important certain components like graphs, numbers, tables and narratives are in reports to management. Participants at the level of program and responsibility manager rated the components on a Likert scale of one (1) that indicates it is not important to five (5) that indicates it is important. Figure 4.11 below shows the factor values for each component.

**Figure 4.11: Important components of internal reporting.**



Given that all the factor values obtained are high (> 0.5), it means that the majority of the participants value a comprehensive internal reporting system as high.

#### **4.3.12 Inclusion of a formal performance statement in the financial statements of the Northern Cape Provincial Legislature**

This question sought to discover whether a formal performance statement should be included in the financial statements of the Northern Cape Provincial Legislature with the other components such as the balance sheet, income statement and cash flow statement. All the respondents (100%) indicated that performance management is equally important as financial management. Respondents indicated that reports should include a statement of performance together with other components of financial statements, such as the balance sheet, income statement and cash flow statement.

In order to determine if any relationship exists between the financial information and performance information the correlation coefficient and p-values were calculated. The analysis tested whether or not there is a relationship between accounting information and performance information. The p-value was compared with a significance level of 0.1. In calculating the p-value for accounting information questions 3, 7.1, 7.2, 8, 8.1 and 9 were used. This was correlated to the responses in questions 4, 6.1, 6.2, 6.3, 7.3 and 15. Table 4.3 indicates the correlation coefficient and p-values of the variables relevant to the study.

**Table 4.3: Correlation coefficient and p-values.**

<b>Correlation coefficient – two variables are accounting information and performance information</b>	<b>P-value</b>
0.523	0.018

The correlation coefficient is 0.523 which indicates a positive relationship and has a p-value of 0.018 (<0.1) which shows a significant positive relationship between accounting information and performance information. This suggests that an improvement in the accounting information, through the implementation of accrual accounting, could lead to a significant improvement in performance of the Northern Cape Provincial Legislature.



#### **4.3.13 Measures currently in place to maximize efficient, effective and economic use of resources in the Northern Cape Provincial Legislature**

In total only 50% of respondents indicated that certain current measures are in place to maximize effective and economic use of resources in the Northern Cape Provincial Legislature. Respondents indicated the following current measures:

- Budget monitoring, Coordination (10% of participants)
- Electronic Systems - procurement, financial, performance (5% of participants)
- Expenditure reports, Annual performance plans, Financial policies (5% of participants)
- Financial Directives (5% of participants)
- Internal Audit (5% of participants)
- Management Meetings (5% of participants)
- Pre-authorisation and coordination (5% of participants)

The measures mentioned by respondents did not include the financial and reporting systems as measure to maximize effective and economic use of resources in the Northern Cape Provincial Legislature. There therefore no contradiction with previous findings.

#### **4.4 SUMMARY OF QUALITATIVE STUDY – INTERVIEW RESULTS**

The participants in the interviews indicated that since the introduction of accrual accounting, there has been an improvement in management of resources in their respective legislatures. The participants in the study could quantify the improvement in the management of resources. It was indicated that by reporting the cost of operations more accurately through accrual accounting, it made decision makers more cost sensitive and able to improve the economic use of resources.

New financial legislation had been enacted which places a compliance requirement on the Legislature to implement accrual accounting. This legislation also puts more stringent compliance regulations in place other than accrual accounting. However it was indicated that it is difficult to isolate the effect of the implementation of accrual accounting since it was done as part of many reforms at the time.

Participants indicated that because the state as a whole operates on a cash basis of accounting, all other processes such as budgeting and planning are done to support the cash basis. Because the Legislature is part of the state system of appropriation, it means budgets and financial reports have to be converted to cash in any event to be consolidated. The aforementioned scenario creates additional work load which otherwise would not be necessary.

Participants believe that accrual accounting in the legislature is superior to cash in that it allows for better planning, since the transactions are on the books immediately and can be taken into account when planning.

In terms of the level of investment, participants agree that the information technology software is the largest investment, followed by retraining of staff, and costs related to conversion of historic information. Participants used information systems which differed vastly in terms of costs. However one participant is of the opinion that the information system is not used to its full capacity.

Participants cited the retraining of staff and the valuing of assets as the most challenging aspects in the conversion from cash to accrual accounting. Other aspects which were regarded as challenging relate to the users of financial statements, who were not accustomed to accrual reporting and were overlooked when the entire process was planned.

The acquisition of a new information system that is able to handle the requirements was rated by participants as the most important aspect of the entire process.

It was also indicated that implementing the accrual system parallel to the cash system or whilst the cash system is maintained, was advisable for a pilot period to iron out any implementation problems.

#### **4.5 CONCLUSION**

Respondents in the quantitative study rate the current quality of accounting and performance information both below satisfactory. Moreover the respondents rate the link between the two variables' influence on one another even poorer. This in turn leads to

resources not being used effectively, economically and efficiently in the Northern Cape Provincial Legislature.

According to the respondents, the leading causes for the poor quality of information are both the current system of financial reporting and the current system of performance reporting. While the objectives of this study aims to evaluate the effect of changing the basis of accounting on the performance management, the empirical evidence seems to suggest that both the basis of accounting and the system of performance management contribute in equal proportions to the poorer performance outcomes in the Northern Cape Provincial Legislature.

All respondents agree that the implementation of accrual accounting will lead to improvement in performance of the Northern Cape Provincial Legislature. The empirical study also revealed those elements which are important to an improved system of financial and performance reporting. The qualitative data largely supports the data obtained from quantitative sources.

The following chapter will focus on recommendations and conclusions drawn from the empirical study.

## **CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS**

### **5.1. INTRODUCTION**

The purpose of this chapter is to summarise the conclusions and recommendations from this study. The findings from the qualitative and quantitative empirical studies together with findings from the literature review will be dealt with.

Findings and recommendations in respect of the system of financial reporting in the Northern Cape Provincial Legislature will be discussed. This will be followed by a discussion on performance management in the Northern Cape Provincial Legislature. Finally the impact of financial reporting on performance management will be discussed. The chapter will conclude with recommendations for practical implications and further study.

### **5.2. FINANCIAL REPORTING IN THE NORTHERN CAPE PROVINCIAL LEGISLATURE**

The Northern Cape Provincial legislature currently reports its financial results on the cash basis of accounting. It follows that all planning processes, such as budgeting and strategic planning is based on the cash basis of accounting.

In the literature review (see Chapter 2) it was determined that the accrual basis of accounting is considered to be more effective when compared to the cash basis of accounting. The main reasons cited for this according to Wynne (2004:7) are:

- The accrual basis of accounting provides more comprehensive financial information.
- It allows for better management of assets.
- It provides full or true records of goods and services.

The study revealed that the quality of financial management is below satisfactory and that the financial resources are not used economically, efficiently and effectively. A major contributing factor to this is the cash basis of accounting which does not provide

the needed information at the required time. It is therefore not surprising that participants in the study believe that the introduction of accrual accounting will improve both the quality of information and performance in terms of effectiveness, efficiency and being economical.

Regular and timely financial reports as well as excellent information produced by the financial reporting basis are rated highly by respondents in terms of what constitutes a good system of financial reports. The findings of the empirical study support the literature review that suggests that the accrual basis of accounting makes provision for both these aspects.

The study revealed that the accrual basis of accounting in the legislature is regarded as more effective than the cash basis of accounting in that it allows for better planning, since the transactions are reflected on the books immediately and can be taken into account when planning. The empirical study supported the literature, by providing a clear indication that the implementation of accrual accounting is both beneficial and desirable. However it should be mentioned that the literature indicates the disadvantages as the high cost of implementation and little or no empirical study done to measure the impact in terms of cost benefit analysis. This view was shared by the participants in the qualitative study.

On the bases of the empirical evidence, supported by the literature, it is recommended that the Northern Cape Provincial Legislature implement accrual accounting as the basis for its financial reporting. This recommendation will be further expanded on in the conclusion of this chapter.

### **5.3. PERFORMANCE REPORTING IN THE NORTHERN CAPE PROVINCIAL LEGISLATURE**

While the hypothesis of this study focus on the impact of accounting information on performance management, with accounting information as the variable and performance information as the constant, the empirical study revealed some surprising results with respect to the current system of performance management.

Respondents have rated both the quality of current financial information and performance information below satisfactory; with the quality of performance information was rated lower than that of the financial or accounting information. The current system of performance management was rated as an equally important contributing factor to the basis of accounting for the low quality of information and not using resources effectively, efficiently and economically.

Strategic and operational planning, which is a critical element of any system of performance management, as indicated in the literature review, was given a high importance rating by participants in terms of a good system of performance reporting.

While this study did not examine different alternatives in terms of performance management, the empirical evidence suggests that the performance management systems are not at the required standard. It is recommended that a further study must be conducted in this area to determine which system of performance management suits the unique need of the Northern Cape Provincial Legislature.

#### **5.4. THE LINK BETWEEN FINANCIAL AND PERFORMANCE INFORMATION**

The empirical study found a strong positive correlation between accounting information and performance management. This means, theoretically, that an improvement in the quality of accounting information should lead to an improvement in performance management.

The majority of respondents feel that the linkage between the financial information and performance information is below satisfactory and responses gravitate towards mediocre and poor. In the Northern Cape Provincial Legislature budget and financial results are reported with the assistance of information technology resources, while performance management and the subsequent reporting of results is collated, reported and verified by means of a manual system. The empirical study showed poor linkage of financial results to performance outcomes. The two systems are independently managed, with no effort to reconcile the results of the two systems.

As noted in the previous section, more research is required in terms of the most appropriate performance management for the Northern Cape Provincial Legislature. It is recommended that a strong link between the financial system and performance objective is developed.

## **5.5. RECOMMENDATION**

Based on the empirical evidence, the following model is recommended for the Northern Cape Provincial Legislature:

**Stage 1** - Simultaneous Strategic and Operational Planning and Budgeting (Accrual based)

In this stage the performance objectives are clearly set and required financial resources are linked to the objectives (budgeting). This stage requires economic, efficient and effective allocation of resources.

**Stage 2**-Implementation and monitoring

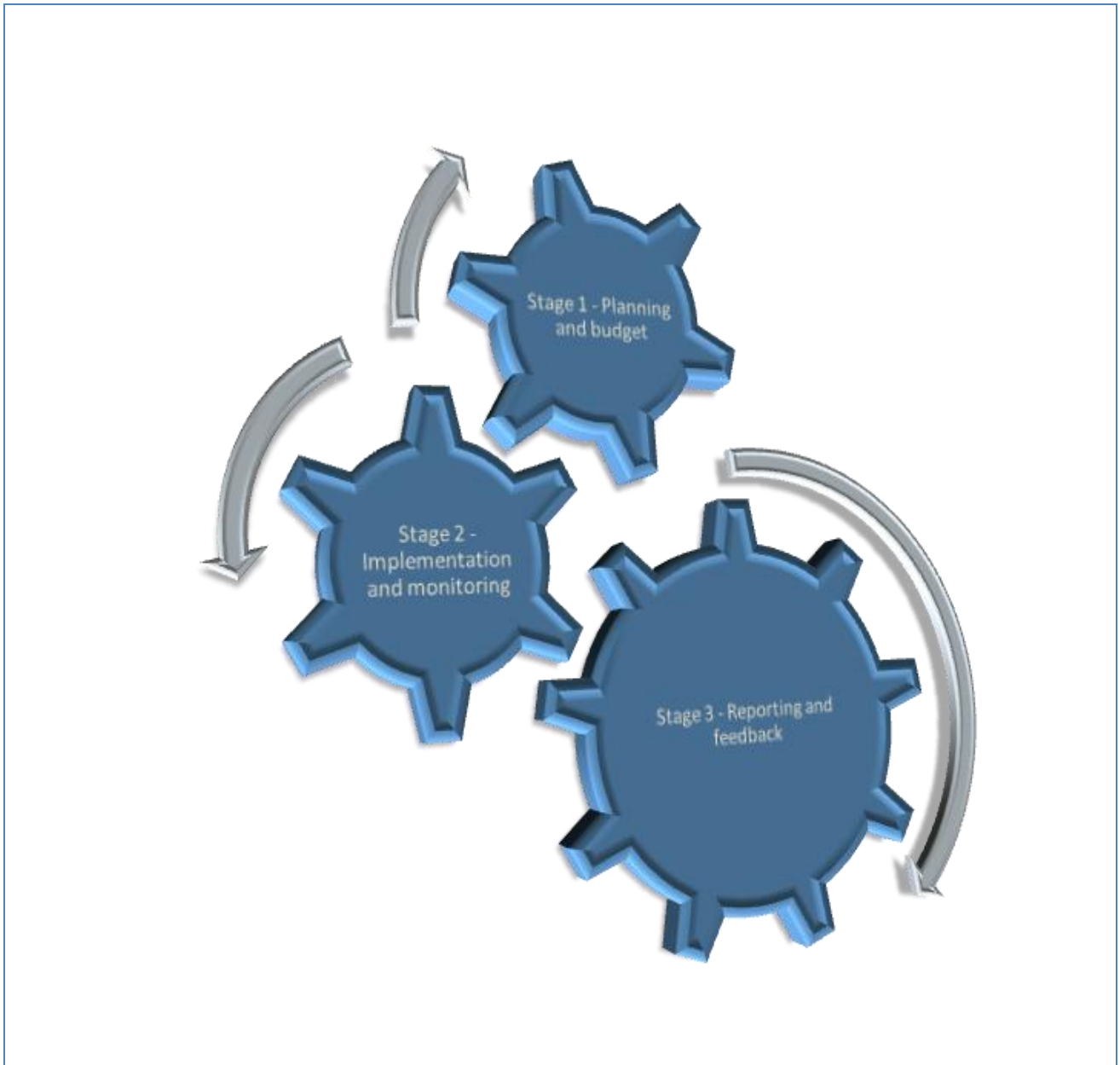
In this stage all implementation decisions are based on plans and the budget (available resources) and monthly monitoring by means of formal reporting against both financial results and performance results.

**Stage 3** - Report and Feedback

In this stage the results are reported upon, on the same basis of planning, and the formal statement of performance is reported with the financial results. The results are fed back to the system stage 1(Strategic and Operational Planning and budgeting) for the following year.

A three stage planning and reporting cycle consists of one calendar year (12 months) which feeds into a five year strategic planning cycle. The following figure represents the recommended model (Figure 5.1).

**Figure 5.1: Integrated accrual based performance and financial reporting model.**



While the accrual accounting basis of reporting is recommended, it is further recommended that the Northern Cape Provincial Legislature:

- Invests in an integrated management information system, which supports integrated performance and financial management.



- Skills audit to be performed to determine if any skill gaps exists in the implementation and management of accrual accounting systems, and required training be put in place to bridge any identified gap.
- Strong emphasis be placed on ensuring data is accurately converted from the cash basis of accounting to the accrual basis of accounting, through the appointment of external experts to facilitate the process.
- Any new system to be run parallel to the existing system for a period of at least one reporting cycle.

## **5.6. CONCLUSION**

This study revealed that there are certain shortcomings/deficiencies as far as the cash basis of accounting, which is currently in use by the NCPL, is concerned. It was also determined that the accrual basis of accounting is a more effective basis for accounting and can contribute to more effective, efficient and economical use of resources.

The findings for the study suggest that there are specific benefits for the NCPL if an accrual basis of accounting is implemented. However the implementation of a new basis of accounting is not without problems and aspects such as costs and personnel should be carefully considered before such implementation take place.

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## Annexure 1 – Questionnaire

**THE PURPOSE OF THIS QUESTIONNAIRE IS TO SEEK INFORMATION ON THE RELATIONSHIP BETWEEN ACCOUNTING INFORMATION AND PERFORMANCE MANAGEMENT IN THE NORTHERN CAPE PROVINCIAL LEGISLATURE**

### Instructions to respondents

You are kindly requested to complete this questionnaire as accurately and honestly as possible. Responses will be treated with utmost confidentiality, anonymity and will not prejudice anyone.

1. Which management role do you currently fulfil in the Northern Cape Provincial Legislature?

Programme Manager	Responsibility Manager	Both
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2. In which programme are you a manager?

Programme one: Administrative Support	Programme Two: Members Facilities	Programme Three: Core Business
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3. On a scale of 1 to 5 how would you rate the standard of financial information currently available to you to make management decisions? Please rate between one and five. Indicate (5) if excellent and (1) if considered poor.

1	2	3	4	5
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4. On a scale of 1 to 5 how would you rate the standard of performance information currently available to you to make management decisions? Please rate between one and five. Indicate (5) if excellent and (1) if considered poor.

1	2	3	4	5
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5. On a scale of 1 to 5 how would you rate the efficiency and effectiveness of the link between performance objectives and financial information (both budget and actual)? Please rate between one and five. Indicate (5) if considered strong and (1) if considered poor.

1	2	3	4	5
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6. Do you think that financial resources used towards attainment of stated objectives are currently used:

6.1 Effectively

Yes	No
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6.2 Efficiently

Yes	No
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6.3 Economically

Yes	No
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- 7 The Northern Cape Provincial Legislature has received an unqualified audit opinion on the financial statements, 2012/13 but a qualified opinion on its performance information. Which of the following do you think contributed, in order of importance to this state of affairs? Please rate each between five (important) and 1 (not so important)

7.1 The current system of budgeting



1	2	3	4	5
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7.2 The current system of financial reporting

1	2	3	4	5
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7.3 The current system of performance reporting

1	2	3	4	5
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7.4 The link between the financial information and performance outcomes

1	2	3	4	5
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8 Accrual accounting is a system of accounting where transactions are recorded when they occur, as opposed to the cash basis of accounting, which records transactions only when cash is paid or received. Do you think that information produced by the accrual basis will benefit management decision making as opposed to the cash basis?

Yes	No
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If yes, to what extent? Please rate between five (to a great extent) and one (to lesser extent)

1	2	3	4	5
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9 Do you think an investment in an accrual accounting system for the Northern Cape Provincial Legislature will lead to an improvement in performance outcomes for the Northern Cape Provincial Legislature? Please rate from five (yes definitely) to one (not really).

1	2	3	4	5
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10 What do you consider to be the features of a good system of financial and performance management and reporting? Please rate features below five (important) and one (not so important)

10.1 Strategic and operational planning

1	2	3	4	5
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10.2 Timely and regular financial reports

1	2	3	4	5
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10.3 Excellent information

1	2	3	4	5
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10.4 Accountability of managers

1	2	3	4	5
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10.5 Strong link between performance information and financial information

1	2	3	4	5
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11 The main implementation problems for a fully integrated accrual based accounting system are listed below. Please rate them in terms of five (important) and one (not so important).

11.1 The need for skilled finance people

1	2	3	4	5
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11.2 New information systems

1	2	3	4	5
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11.3 Getting assets on the books at correct value

1	2	3	4	5
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11.4 Other (Specify) \_\_\_\_\_

1	2	3	4	5
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12 How frequently is internal financial and performance reporting taking place in the Northern Cape Provincial Legislature?

Monthly		Quarterly		Six - Monthly		Annually		Never	
Yes	No	Yes	No	Yes	No	Yes	No	Yes	No

13 Should the frequency of reporting be increased to assist with better resource management?

Yes	No
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14 How important are the following components of reporting to you? Please rate components below five (important) and one (not so important).

14.1 Graphical presentation

1	2	3	4	5
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14.2 Numerical presentation

1	2	3	4	5
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14.3 Tabular presentation

1	2	3	4	5
---	---	---	---	---

14.4 Narrative presentation

1	2	3	4	5
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15 Performance measurement is important for effective financial management. Are you of the opinion that a formal performance statement should be included in the financial statements of the Northern Cape Provincial Legislature with the other components such as the balance sheet, income statement and cash flow statement?

Yes	No
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16 What measures are currently in place to maximizing efficient, effective and economic use of resources in the Northern Cape Provincial Legislature?

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**THANK YOU FOR YOUR TIME AND EFFORT**

## Annexure 2-Interview Guide

**THE PURPOSE OF THIS GUIDE IS TO SEEK INFORMATION TO SUPPORT AN EMPIRICAL STUDY INTO THE RELATIONSHIP BETWEEN ACCOUNTING INFORMATION AND PERFORMANCE MANAGEMENT IN THE NORTHERN CAPE PROVINCIAL LEGISLATURE**

**1. General briefing:**

This interview is conducted for purposes of an academic study towards the researchers MBA studies at the University of the Free State.

Responses are treated with confidentiality and discretion.

This interview is aimed at a sample Provincial Legislatures who have converted from the cash basis of accounting to the accrual basis of accounting.

Responses will be used only and exclusively for analysis and inclusion in the academic study mentioned above, for no other purpose.

Do I have your informed consent to continue the interview: Yes/ No

**2. Your Legislature has adopted accrual accounting as basis for financial reporting. Since the conversion have you noted any improvement in the management of resources, with particular reference to economic, efficient and effective use of resources? Please provide some detail.**

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**3. Do you think the introduction of accrual accounting has lead to better performance of your Legislature in terms of achieving its predetermined objectives?**

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**4. Are you of the view that accrual accounting is superior to cash accounting, here I am not looking for the academic response, but rather in relation to your experience in the Legislature. In other words, we know accrual is better for private sector, but do you think it has the same benefits for the public sector?**

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**5. Do you think the total investment in the conversion from cash to accrual is worth the benefits it brings?**

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**6. From your experience what were the difficulties experienced by your Legislature in the conversion process?**

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**7. What was the single most important aspect of the conversation process and why do you rate this aspect as the most important?**

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**8. Is there any other aspect about the conversation from cash to accrual accounting which you would like to mention or discuss?**

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**THANK YOU FOR YOUR TIME AND EFFORT**

## ABSTRACT

Performance in the public sector is measured in terms of the **economic, efficient** and **effective** (three E's) use of resources in order to achieve the service delivery output. While accounting information is used in the private sector to measure the extent of performance, the same does not seem to hold true in the public sector. Furthermore different bases of accounting are used in the private and public sector. The accrual basis of accounting is used in the private sector and cash basis of accounting is used in public sector. The Northern Cape Provincial Legislature receives unqualified audit opinions on the state of their finances, while at the same time receiving qualified reports on its performance outcomes. This study is a comprehensive investigation into the relationship between cash-based accounting information and performance management (three E's) in the Northern Cape Provincial Legislature.

A detailed study of existing literature on the subjects of both performance management and basis of accounting was done. Both quantitative and qualitative research methods were applied in gathering and analysing data to support findings and conclusions in the study. The findings were also evaluated against the existing literature.

The study found that managers in the Northern Cape Provincial Legislature regard the quality of financial information as well as performance information as poor. The study further finds that management of the Northern Cape Provincial Legislature does not see a clear link between the financial information and performance information. The study also reveals that the management of the Northern Cape Provincial Legislature is not doing well in terms of managing its resources, in terms of the economy, efficiency and effectiveness. The current cash system of financial reporting and the current system of performance reporting are found to be the most problematic in terms of what contributes to poor resource management. The adoption of accrual accounting, according to the study, will greatly improve management of resources and in turn improve performance outcomes. The study also goes on to identify some problems with the implementation of accrual accounting and the transition from cash to accrual is by no means an easy feat.



The findings for the study suggest that there are specific benefits for the NCPL if an accrual basis of accounting is implemented. However the implementation of a new basis of accounting is not without problems and aspects such as costs and personnel should be carefully considered before such implementation take place.

The study recommends a three stage approach to implementation of accrual accounting in the Northern Cape Provincial Legislature. Proper planning for all resource requirements is recommended as well as continuous monitoring, evaluation and feedback into the planning stage.

### **Keywords**

Accrual Accounting, Cash basis of Accounting, Public Sector, efficiency, economy, effectiveness, Performance Information, Financial Management, Performance Management