ADOPTION OF ACCRUAL BASED ACCOUNTING BY THE UNITED NATIONS: A CASE OF WORLD FOOD PROGRAMME (WFP) KENYA.

BY

PHILIS W. NJUGUNA

UNITED STATES INTERNATIONAL UNIVERSITY

SPRING 2014
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PHILIS W. NJUGUNA

A Project Report Submitted to the Chandaria School of Business in Partial Fulfillment of the Requirement for the Degree of Masters in Business Administration (MBA).

UNITED STATES INTERNATIONAL UNIVERSITY

SPRING 2014
STUDENT’S DECLARATION

I, the undersigned, declare that this is my original work and has not been submitted to any other college, institution or university other than the United States International University in Nairobi for academic credit.

Signed: ________________________  Date: ________________________

Philis Njuguna (ID 624910)

This project has been presented for examination with my approval as the appointed supervisor.

Signed: ________________________  Date: ________________________

Mr. Samuel Wainaina

Signed: ________________________  Date: ________________________

Dean, Chandaria School of Business
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ABSTRACT

The United Nations in an attempt to harmonize financial reporting practices across United Nations system organizations made a decision to adopt the International Public Sector Accounting Standards. The purpose of this study was to examine the implementation of accrual-based accounting by the World Food Programme. The study sought to answer three research questions; First, the benefits derived from the adoption of accrual based accounting system; second, the challenges of implementing accrual based accounting system and lastly the essential pre-conditions for successful implementation of accrual based accounting.

This study took a descriptive research design using case study approach. The population included 50 finance staff working in the WFP finance department from which a representative sample of 45 was selected using simple random sampling method. Primary data collection was through a hand circulated survey questionnaire distributed to the sampled population. Drop and pick method was adopted to circulate the questionnaire. Data was analyzed on Microsoft excel package using descriptive statistics. Correlation analysis using SPSS software represented the significance of relationship between the results obtained from the respondents and the demographic characteristics of the respondents. Data presentation was through tables and figures.

Majority of the respondents perceived better asset management, improved consistency and comparability of financial information and improved liabilities management as the major benefits derived from implementation of accrual accounting. The findings also revealed that inadequate financial information system, high cost of implementing the system and lack of adequate resources were the main challenges of implementing accrual based accounting system. The survey results showed that the most essential pre-conditions for the successful implementation of accrual accounting were information technology capability, consultation and co-ordination within and across departments and capacity building through awareness, training and resource provision.

The study concluded that implementation of accrual accounting resulted to numerous benefits accruing to the organization, many challenges were experienced during the implementation, and that successful transition to accrual accounting required proper
planning and organizing through setting the right preconditions for successful implementation.

The study recommended the adoption of accrual-based accounting by other public sector entities, creation of awareness of the challenges and essential pre-conditions for successful implementation of the system. Further research should be focused on investigating the satisfaction level of finance staff with adoption of accrual accounting. Further research could also be carried out on United Nation agencies to examine the sustainability of the dual system of accounting with the aim of investigating the possibility of introduction of accrual based budgeting.
ACKNOWLEDGEMENT

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I would also like to specially thank the respondents of World Food Programme who agreed to participate in this study and devoted their time fill in the questionnaire that provided the relevant information required to complete this project. The data you provided made the data analysis possible.

Finally, I would like to thank my family and friends for their encouragement and support. Sincere thanks and appreciation go to my son Elvis who had to cope with my absence as I took time to attend classes to pursue the degree programme.
DEDICATION

To my son Elvis with love
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<tr>
<td>CEB</td>
<td>Chief Executives Board</td>
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<tr>
<td>FEE</td>
<td>Federation des Experts Compatibles Europeans</td>
</tr>
<tr>
<td>FMIS</td>
<td>Financial Management Information System</td>
</tr>
<tr>
<td>HLCM</td>
<td>High Level Committee on Management</td>
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<td>IAS</td>
<td>International Accounting Standards</td>
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<td>IFAC</td>
<td>International Federation of Accountants</td>
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<td>IPSAS</td>
<td>International Public Sector Accounting Standards</td>
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<tr>
<td>NAO</td>
<td>National Audit Office</td>
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<tr>
<td>OECD</td>
<td>Organization for Economic Co-operation and Development</td>
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<tr>
<td>PPE</td>
<td>Property, Plant Equipment</td>
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<tr>
<td>PSC</td>
<td>Public Sector Committee</td>
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<td>PwC</td>
<td>PriceWaterhouseCoopers</td>
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<td>SPSS</td>
<td>Statistical Package for the Social Sciences</td>
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<td>UN</td>
<td>United Nations</td>
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<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organization</td>
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<tr>
<td>UNSAS</td>
<td>United Nations System Accounting Standards</td>
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CHAPTER 1

1.0 INTRODUCTION

1.1 Background of the Problem
Over the last few decades, the public demand for radical improvement of public sector activities resulted in a wave of organizational, managerial and accounting reform in the public sector worldwide (Christiaens and Rommel, 2008). Accounting reform is considered as an important prerequisite for successful implementation of any other organizational or managerial reform. This is because a reformed accounting system is able to provide relevant and accurate financial information to support any other reform (Christiaens, 2007).

Public sector reforms are geared towards enhancing accounting and financial reporting and increase public sector accountability (Prodjoharjono, 2009). The convergence to accrual accounting within the public sector is driven by the need to strengthen efficiency hence the need for the reforms. Public Sector entities should be embrace accountability as well as professionalism in the management of public financial resources (Aggestam, 2010).

The drive for accrual-based accounting in the public sector has been ongoing for a long period and many public sector entities have opted to adopt financial accounting reforms that support accrual accounting to replace cash accounting processes. This is with the intention of increasing their financial accountability and transparency and in turn improved measurement of public sector performance (Stamatiadis, 2009 and Nasi and Steccolini, 2008).

The United Nations (UN) financial statements have been for a long time been prepared in compliance with United Nations System Accounting Standards (UNSAS) that were developed by accounting specialists of the United Nations (UN) and its specialized agencies in 1993. This was following a recommendation by the panel of external auditors due to the gap that existed for lack of International Accounting Standards (IAS) for not-for-profit organizations. Although the UNSAS were based on International Accounting Standards, the UNSAS no longer reflect modern international financial reporting standards (Biraud, 2010).
The United Nations endeavored to harmonize financial reporting practices across United Nations system organizations and allow for better comparability of their financial statements. This necessitated the creation of a task force on accounting standards under the High Level Committee on Management (HLCM) of the United Nations System Chief Executives Board for Coordination (CEB). The task force was to determine whether the UN system should align itself with international accounting standards (UNICEF, 2009). The HCLM task force recommended the adoption of the International Public Sector Accounting Standards (IPSAS) and in 2006, the General Assembly endorsed the recommendation of the Chief Executives Board (CEB) and approved the adoption of the United Nations of IPSAS (General Assembly, 2006).

The adoption of IPSAS is a key reform element within the United Nations System and it continues to receive support from governing bodies and senior management. Since 2006, United Nations System organizations have made headway in aligning themselves with IPSAS requirements. IPSAS are a set of high-quality, independently developed accounting standards that require accounting on a full accruals basis. Accrual based accounting has been viewed as the most suitable accounting system worldwide both in the public as well as the private institutions (Biraud, 2010).

The implementation of IPSAS requires a migration from the current accounting system (modified cash) to accrual based accounting. The transition seeks to facilitate the availability of accurate information and the rendering of quality services from the organization to its diverse client base. The inability of the modified-cash accounting system to provide meaningful and sufficient accounting information that enables an organization to effectively plan, control and evaluate its performance necessitates the adoption of an accrual-based accounting (Koen, 2007).

According to IFAC a modified cash accounting system recognizes transactions and other events on a cash basis during the year, but it also takes into account the unpaid accounts and/or receivables at year’s end. Books of accounts are open for posting of transactions for a period of around a month after year-end (IFAC, 2008).

The problems associated with modified cash accounting include understatement of expenditure as capital acquisitions are expensed in the year of purchase instead of being
depreciated or amortized during the useful life. Poor recording, management and tracking of assets makes it difficult to accurately cost goods and services. The system permits understatement of liabilities due to non-recognition of liabilities until the cash is paid and non-provision for future commitments or guarantees. Modified cash accounting places great emphasis on cash payments and ignores non-cash items and this may result to unnoticed deterioration in fixed assets. Modified cash accounting provides only basic cash information and is therefore easy to manipulate (IFAC, 2008).

On the other hand, financial accounts prepared on accrual basis provide information on budget management as well as proper and appropriate use of public funds, assuring users the possibility of making the best economic decisions. There are many advantages provided by the financial statements including, transparency and accuracy, improved assets and liabilities management, reliable source for decision-making and better assessment of programs and related services costs (Bontas, Aurora and Petre, 2009). An accrual based accounting system provides management with sufficient and reliable information that facilitates effective management of assets and liabilities. Based on this information, the management makes informed on effective and efficient utilization of asset as well as disposal of assets not in use. This was a finding on the study of accrual accounting in the United Kingdom government (National Audit Office [NAO], 2008).

According to Carlin (2005), benefits derived from accrual accounting include enhanced transparency, both externally and internally accountability, greater organizational performance, improved resource allocation and greater efficiency derived from public entities ability to identify full costs of their activities. Managerial decision making due to better quality of financial information generated from accrual based financial statements (Sutcliffe, 2001) and accurate, comparable and useful information for users of financial statements are realized (Public Services Committee, 2002).

There exists little evidence on benefits associated with the adoption of accrual-based accounting while academics have downplayed the importance of accrual accounting in the public sector (Lapsley, 2009). However, numerous studies have advocated for the superiority of accrual-based accounting compared to cash based accounting hence the reason why many international public sector organizations have adopted or are in the process of implementing accrual accounting principles (Connolly and Hyndman, 2006).
Though numerous benefits have been accredited to the accrual accounting initiative, a number of drawback and problems have also been associated with the implementation of accrual based accounting system. The adoption of accrual-based accounting requires significant investment of resources both in terms of finance and in terms of time. This may imply that other areas of the organization experience insufficient resource allocation. Accrual accounting provides the management with the opportunity of using judgment on decision-making on many instances and hence the need to ensure there are checks in place to mitigate incidences of judgmental errors (Hepworth, 2003). According to Christiaens (2008), challenges of implementing accrual-based accounting could occur due to misinterpretation of accounting standards, the recognition, measurement and reduction in value for both tangible and intangible assets as well as the accounting treatment of revenue and expenditure. Public sector organizational activities are characterized by lengthy and repetitive procedures that result to numerous implementation barriers thereby increasing the cost and time resource needs for the accounting change implementation (Christensen, 2002).

According to Carlin and Guthrie (2003), some of the challenges of implementing an accrual based accounting system include lack of an integrated financial information system and scarcity of accountants with experience to implement an accrual based accounting system. The top management sometimes fails to take a leading role of the implementation process thus providing the staff with an opportunity to resist the change. Failure to motivate staff through both financial and non-financial compensation for extra time and effort could also imply failure of implementation of the accounting system. In order to reap the full benefits of accrual accounting it is important to consider the problems associated with the transition to avoid delays or failure of implementation and avoid a scenario where problems of implementation of accrual accounting may override the expected benefits (Christiaens and Romel, 2008).

An organization that takes the decision to move from cash based to accrual based accounting system needs to consider the pre-implementation factors inorder to mitigate implementation and post-implementation risks. The awareness of these implementation challenges provides insight to an organization as to some of the pre-conditions necessary for the successful implementation of accrual accounting. Khan and Mayes (2009), identified managerial support, support of the regulations, technical capacity and adequate
financial information systems as some of the beneficial pre-conditions for successful implementation of accrual based accounting system.

1.2 Statement of the Problem
The United Nations (UN) made the decision to implement the accrual based accounting across the United Nations System Organizations to replace the current system of modified-cash accounting. This was motivated by the desire to increase the impact of the accounting system in public service delivery. World Food Programme (WFP) already apply full accrual accounting standards and was one of the pioneer organizations that presented and received unqualified (favorable) opinion from its external auditor on its financial statements for 2008-2011. Other UN organizations are expected to follow suit in order to harmonize the financial systems reporting and enable comparability of the financial statements.

Despite the many advantages that have been identified as resulting from the use of accrual accounting there are few studies that have been carried out to support or negate these advantages. Majority of research advocating for the implementation of accrual based accounting system tend to address the question of why organizations should adopt it rather than the question of what the effects might be (Carlin, 2005). Some researchers have argued that the benefits of accrual-based accounting have been overstated and that no evidence exists to show that the claimed benefits accrual accountings have practically been achieved (Anessi-Pessina and Steccolini, 2007).

Most of the research on accrual accounting in the public sector has been carried out in western countries such as New Zealand, Australia, Finland, Greece, Denmark, Sweden and United States. Hepworth conducted a study on accrual accounting in the government of United Kingdom (Hepworth, 2003). A study on the impact of accrual accounting in New Zealand and Australia was conducted in 2007 (Ellwood and Newbury, 2007). Stamatiadis also conducted a study on government financial accounting reform in the public health sector in Greece with the aim of examining the accounting and finance officer’s perceptions regarding the implementation of accrual accounting in the health sector (Stamatiadis, 2009).
There is evidence from public sector organizations already using accrual accounting that the system has not always produced the expected benefits. The early adapters in the public sector also faced numerous challenges during the implementation process. It is critical for the United Nation Organizations in the process of implementation of accrual-based accounting to learn from the experiences of the pioneer public sector organizations who have already adopted accruals accounting. An extensive literature review of many accounting studies connected to public sector reform revealed that no in-depth study has been conducted focusing on the benefits and challenges of implementing accrual based accounting system in any of the United Nations System organizations. There has been no study carried out on what the United Nations Organizations ought to do to ensure successful implementation of accrual based accounting system. The motivation of this study was therefore to address this gap in the public sector accounting literature.

1.3 The Purpose of the Study
The purpose of the study was to examine the implementation of accrual based accounting in a United Nations Organization specifically World Food Programme (WFP).

1.4 Research Questions
This study sought to answer the following questions:

1.4.1 What benefits were derived from the adoption of accrual based accounting system?
1.4.2 What were the challenges of implementing the accrual based accounting system?
1.4.3 What were the essential pre-conditions for successful implementation of the accrual based accounting?

1.5 Justification of the Study
The importance of this study derived from the limited research examining the views of accountants and finance officers of United Nations System entities regarding the adoption of the accrual based accounting system.

1.5.1 Public Sector Organizations
The research is necessitated by the fact that accrual based accounting enhances accountability and improves performance in the public sector due to the availability
reliable and credible financial information for decision making purposes (Pettersen, 2001). The findings of the study will contribute to the information on the impact of the adoption of an accrual based accounting system. The public sector organizations planning to adopt accrual accounting will find the findings of this study very useful in making decisions.

1.5.2 United Nations Organizations

The choice to use World Food Programme, a United Nations Agency is justified by the fact that it facilitates study of an early adopter of accrual accounting. WFP implemented full accrual accounting since 2008. This Study was intended to assist United Nation entities in the process of adopting or considering adopting accrual based International Public Sector Accounting Standards (IPSASs) to successfully implement the accrual based accounting system.

1.5.3 Policy makers

It is expected that the findings of the study will be useful to professionals, policy makers, and others concerned with policy issues in public sector management to make informed decisions on the various aspects of management and in particular the area of accounting reforms.

1.5.4 Researchers and Academicians

The study contributed to the growing body of evidence available for review by focusing on the benefits, challenges and preconditions for successful implementation of accrual based accounting for public sector organizations. It provided a useful and valuable reference to future research in this context. This study aimed to support the view that the move to accrual based accounting results to various benefits and that numerous challenges and costs are associated with the implementation of accrual based accounting.

1.6 Scope of the Study

This research was limited to World Food Programme for the period 2008 to 2012. This was because WFP was the first United Nations organization to introduce accrual accounting. WFP had 5 years of experience in accrual accounting and therefore presenting a suitable candidate for which to fill the research void regarding the benefits,
challenges of implementing accrual accounting, as well as the preconditions for successful implementation of accrual based accounting.

Limitations of the study included scarcity of materials due to limited research on accrual accounting specifically relating to United Nations (UN) organizations. Bureaucracy in the UN and protocol required to obtain information was quite frustrating for conducting the research as some staff shied away from providing information. These limitations were addressed through assuring the respondents of strict confidentiality of the information provided on the survey questionnaire. The assurance of confidentiality was expressly stated on the survey questionnaire. The use of literature from research conducted on other public sector organizations that are not United Nations bodies also provided valuable input to this research.

1.7 Definition of Terms
1.7.1 Accounting Basis
Accounting basis is the set of accounting principles that provide guidelines as to when income and expenses with associated assets and liabilities are recognized for financial reporting purposes. Public sector accounting systems range from cash to accrual accounting with modified cash, modified accrual being in the middle of the spectrum (Baker and Rennie, 2006).

1.7.2 Accrual Accounting
Accrual accounting is an accounting system that recognizes transactions as they occur irrespective of whether there is actual inflow or outflow of cash. The system recognizes revenue when income is earned and expenses are recognized upon delivery or consumption of goods or services (Khan and Mayes, 2009).

1.7.3 Modified Cash Accounting
According to IFAC a modified cash accounting system recognizes transactions and other events on a cash basis during the year, but it also takes into account the unpaid accounts and/or receivables at year’s end. The books of accounts are open for posting of transactions for a period of around a month after year-end (IFAC PSC, 2000).
1.7.4 Public Sector Accounting
Public Sector Accounting is the information system that records, analyzes, classifies, summarizes and communicates public sector entity financial and economic events by providing information for planning, organising and control and for the preparation of financial statements according to accounting and reporting standards for external users (Hrabak, 2004).

1.8 Chapter Summary
This chapter introduces the research project that seeks to examine the perception of UN WFP’s accounting and finance staff on the adoption of the new accounting system based on accruals. The study investigates the benefit and challenges associated with implementation of accrual based accounting system as well as the preconditions for successful implementation of the accrual based accounting system into the UN organizations. The background of the research project was outlined and its justification previewed given a precise research problem. The importance of this study stems from the fact that no existing study focused on obtaining the views of accountants and finance staff of UN entities regarding the implementation of an accrual based accounting system

The research is structured as follows: the next chapter comprises the literature review based on the research questions. The third chapter describes the methodology employed, the fourth chapter describes the research findings while chapter five contains the discussion, conclusions and recommendations of the study.
CHAPTER 2

2.0 LITERATURE REVIEW

2.1 Introduction
This chapter reviews the vast body of public sector accrual accounting literature with the objective of describing the knowledge to date about accrual accounting. The chapter focuses on past literature with relevance to this study and contributes the research questions. The chapter identifies various contributions on the benefits, challenges and preconditions of successful implementation of accrual accounting in the public sector organizations.

2.2 Benefits of Accrual Basis of Accounting
Previous research on international public sector accounting literature resulted into the identification on a number of benefits arising from implementation of the accrual accounting initiative. Consistent with Deaconu (2009), the main benefits of accrual accounting include, better performance, comparability, improved decision-making process, enhanced accountability and more efficient control. These are shown on the Figure 2.1 below:

![Benefits of Accrual Accounting](image)

**Figure 2.1**: Benefits of Accrual Accounting
Source: (Deaconu, 2009)
The main benefits derived from the implementation of accrual based accounting includes enhanced transparency, improved consistency and comparability of financial information, enhanced decision making, reduced and better management of expenditure as well as improved asset and liabilities management. Accrual accounting results to improved resource allocation and also enhances accountability. These benefits are discussed in detail below.

2.2.1 Enhanced Transparency

One of the main reasons that organizations adopt accrual accounting is that it enhances internal and external transparency, increasing the accountability of state and nonprofit entities (Newberry and Pallot, 2005). Christiaens (2010) added that the trend towards accrual accounting is explained by the need for transparency, efficiency and performance management. The information supplied by an accrual-based system is more comprehensive and is of higher quality and consistency. This increases consciousness of a wider range of management issues hence promoting greater transparency (Pollitt and Bouckaert, 2004). When the information produced through the system of accrual accounting is used effectively, it ought to result in a more effective and efficient use of resources.

Accrual accounting provides a greater range of financial information on operations of public sector entities that enhances transparency and improved responsibility. Disclosure of information on assets and liabilities is an essential element of transparency and accountability since accrual accounting requires full statement of assets and liabilities as well as revenues and expenses. Non-cash transactions are reported under accrual accounting hence true cost of an entity’s operations is transparent (Diamond, 2002).

Accrual accounting offers an improved depiction of public sector organizations’ financial condition, which leads to enhanced transparency and accountability (Hodges and Mellett, 2003). Through enhanced transparency, improved performance can be achieved in the public sector (Christiaens and de Wielemaker, 2003). The adoption of accrual accounting is expected to improve financial transparency through the externally imposed rules and standards as to how activities and transactions should be accounted for.
2.2.2 Improved Consistency and Comparability of Financial Information

One of the objectives of financial reporting is to allow accurate comparison to be made between different organizations. The use of the accrual basis for public financial statements will increase comparability of public sector organizations, whilst retaining the comparability of an individual organization on a period-by-period basis (FEE, 2008). The reporting of assets, liabilities, revenue and expenses through the application of credible and independent international accounting standards significantly improves the quality, comparability and credibility of United Nations System financial statements to Member States, donors and staff (Biraud, 2010).

The use of accrual accounting in the public sector involves the application of similar financial accounting standards as in the commercial sector and this facilitates comparison between the cost of public provision with the costs of services purchased directly from non-public sources (Newberry and Pallot, 2005).

2.2.3 Enhanced Decision Making

Accrual accounting provides a better insight towards the performance of public sector procedures. Accrual accounting is an essential tool for assessing financial flexibility and better planning and thus makes management and decision making easy. Accrual accounting information can be presented in a format such that non-accountants can understand the key messages especially by the highlighting of key performance indicators hence the benefit to decision makers of the accruals-based accounts is realized (FEE, 2007).

An accrual based accounting system provides comprehensive information for decision makers on effective and efficient utilization and management of resources. The information enables management to make informed decisions on acquisition, as well as disposal of assets (NAO, 2008). Accrual accounting improves decision-making by providing information on the full cost of operations and the resources used to deliver services to the public and information on assets and liabilities at the end of accounting period (Rkein 2008). Information on net assets/equity also means that organizations may be held accountable for the financial impact of their decisions on both current and future net assets/equity (IFAC, 2003).
Accrual accounting takes into account non-cash items such as depreciation that represent part of the actual cost of the provision of services. Revenue and expenses are recorded in the period in which they occur, even though no cash may have been received or paid. Accrual accounting also accounts for items that could represent future obligations or revenues (Hoggett, 2003). These factors affect the decision-making hence accrual accounting is expected to result to better decision making and in turn enhance performance.

2.2.4 Reduced and Better Management of Expenditure

Under traditional cash accounting, expenses were recognized when cash was paid and the cost was charged to an expenditure account regardless of the nature of the expense. Acquisition of assets (such as, buildings, furniture, and equipment) was treated in the same way as operational expenses and this distorted the accurate allocation of service costs from year to year, especially if non-cash expenditures or asset acquisitions were of a significant amount. Under the accrual system, expenditures are accounted for when incurred, regardless of cash settlement, and expenditures of a capital nature are recognized as assets (inventory, investments, or fixed assets). The accrual method of accounting recognizes the cost of assets by allocating their capital cost across their useful lives through yearly depreciation expense that is considered as part of the cost of services for each period. Accrual accounting has helped agencies to get a better understanding of their expenses, and therefore get a more accurate figure for the cost of their services (Rkein, 2008).

2.2.5 Improved Receivables Management

Under the cash system, revenues were recognized when cash was received and there was no recognition of the amounts due by third parties, such as debtors, for services provided. In addition, revenue from the disposal of assets, for instance computer equipment, was also accounted for when cash was received. This really distorts the budget and the operating performance. However, under accrual accounting revenue is recognized when earned regardless of the cash settlement. Subsequently, revenue earned but outstanding is accounted for as receivables. In addition, the receipts from advances received and borrowings are accounted for and reported as liabilities. Accrual accounting has improved
agencies’ receivables management by establishing a complete accrual accounting system that has made information on receivables available at all times (Rkein, 2008).

2.2.6 Improved Asset Management

Accrual accounting has made a change to the way assets are accounted for, especially long-term assets. Under Modified-cash accounting, purchased assets were recorded and accounted for when money was paid out. The practice of expensing assets at the point of purchase resulted to no depreciation or amortization charge being recognized in the organization’s financial records. The implication was that it was impossible to determine when an asset was sold or outlived its useful life. With accrual accounting, the cost of the asset is distributed over its life of usage. In addition, public sector entities develop asset registers that provide detailed information on the assets’ available (cost, life estimate, depreciation rate, location, date of purchase). This increases the accountability of the managers responsible for those assets (Rkein, 2008).

Public entities are able to improve their management of assets following the introduction of accrual accounting (Connolly and Hyndman, 2006), effectively identify and sell assets that are no longer needed (Wynne, 2008) and also receive better information for the purposes of asset management and cost calculations (Champoux, 2006). Accrual accounting requires organizations to maintain complete records of assets. It facilitates better management of assets, including better maintenance, more appropriate replacement policies, identification and disposal of surplus assets, and better management of risks such as loss due to theft or damage. The identification of assets and the recognition of depreciation help managers to understand the impact of using fixed assets in the delivery of services, and encourage managers to consider alternative ways of managing costs and delivering services (IFAC, 2003).

The benefits of the use of accrual accounting are reflected in asset management as agencies became more knowledgeable about their assets. The main reason why public sector adopt full accrual basis is the need to provide a detailed appraisal of the assets under their control in any given day (Higgins, 2009). Accrual accounting makes it possible to develop financial information that enables a more reliable assessment of an
entity’s assets base and financial position. In particular, it enables the reporting of fixed assets such as property, plant and equipment and receivables and payables (IFAC, 2003).

2.2.7 Improved Liabilities Management

Liabilities management in the public sector is important since organizations strive to ensure they have enough cash to pay the bills, for procurement of goods and services as well as payment of accrued expenses that might fall due. Accrual accounting provides details about liabilities resulting from accrual of expenses thus making cash management more efficient. This helps managers not to fall short of cash. Accrual accounting also improves agencies’ liabilities management by establishing a complete accrual accounting system where information on liabilities is always available (Rkein, 2008). According to Kordestani and Iranshahri (2010), accrual accounting reflects organization's long-term liabilities and total financial situation better.

2.2.8 Improved Resource Allocation

Accrual accounting helps in identifying the full cost of activities enabling improved decision making in resource allocation, coordination and control (Diamond, 2002; Bac, 2003). Costs of utilizing capital assets paid for in prior years (depreciation costs) are accounted for. Where fixed asset values are based on current costs, the depreciation amount can provide an indication of future expenditure required to replace the existing assets at the end of their useful lives and hence maintaining current activity levels. Accrual accounting enables managers to develop more reliable assessment of the actual costs of assets and calculate full cost of services, which serves as an important element in the efficient management of resources (IFAC, 2003).

2.2.9 Improved Accountability

Public sector entities adopt accrual accounting practices in principle to improve the performance of the public sector and in particular to achieve enhanced efficiency, effectiveness and accountability in operations (Rkein, 2008). Adoption of accrual-based accounting promotes the accountability concept within the public sector organizations. Cash accounting could be manipulated to achieve management objectives but accrual accounting improves accountability and resource management by providing information on the full cost of operations and the resources used to deliver services to the public.
Accrual reporting was meant also to improve accountability by reporting more information to general financial report users, more information on assets, liabilities, full costs, expenses, revenues and cash flows (Rkein, 2008). Using accounting accrual basis, applying measurement criterion of the economic resources in integrated financial reporting of an organization can play a significant role in enhancing public sector accountability (Babajani, 2004).

Accrual accounting improves accountability in the use of public resources since public entities account for the resources for which they are held accountable (Diamond, 2002; Katsikas, 2009). Accrual accounting reflects the basis of organization’s long-term liabilities and financial condition resulting to increased accountability (Kurdestani and Iranshahri, 2010). Public entities are required to prepare a statement of financial position, a statement of financial performance statement, a net asset/net worth changes and a statement of cash flows with the notes indicating the significant accounting policies used for the generation of the financial statements and other explanation comments. The financial statements provide information for the assessment of an entity’s economic situation and these constitute in a means for accountability (IFAC, 2011). Public sector accountability is greatly enhanced by the use of accrual basis of accounting and applying financial reporting standards of measurement of the flow of economic resources (Babajani, 2003).

2.2.10 Improved Financial Performance through Operational Cost Savings

Accrual accounting contributes to improved financial performance, where performance is defined as the proficiency of an entity in acquiring resources economically and using them more efficiently and effectively in achieving specified objectives. Accrual accounting information is valuable in enabling tighter management through operational cost savings, disposal of surplus assets and increased efficiency (Barton, 2009). According to Robert and Colibert (2008), accrual accounting is the surest and most viable instrument to measure performance due to its ability to recognize expenditures in correlation with the corresponding revenues (Rkein, 2008).
2.2.11 Improved Internal Controls

Accrual accounting requires proper recording and monitoring of assets and liabilities with the aim of eliminating chances for fraud and reducing misappropriation of funds and resources. This practice ensures there are tight internal controls and also serves as an indicator of good governance (Eagleton, 2009). According to Baboojee (2008), accrual accounting helps to improve the internal control system as a way of promoting accountability. The strength and effectiveness of an entity’s internal control greatly influences the reliability of financial reporting of the entity (Donaldson, 2005).

2.2.12 Presentation of Accurate Financial Position of the Organization

Accrual accounting provides sufficient information to present an accurate financial position of public sector organizations (Rkein, 2008). According to Fourie (2009), accrual accounting enables an assessment of the true financial position of the public sector including the level of borrowings and other liabilities.

Accrual accounting enables public sector entities to measure the full costs of each of the products they deliver to the public. This information is seen as powerful tool with which to drive efficiency improvement. It is supposed to deliver unit product cost information that can then be used for performance measurement and benchmarking purposes (Robinson, 2000). Accrual accounting system reflects organization's long-term commitments and the whole financial situation more accurately (Mohammadi S., Maher M. and Zare S, 2012).

2.2.13 Improved Disclosure and Measurement of Financial Information

Financial statements provide historical information relating to the organizations performance. However, other events may have impending and major impact on the organizations financial status. Accrual accounting requires the disclosure of financial information through notes to the financial statements. The statement of financial performance shows the income and expenses of the public entity while statement of financial position shows the assets and liabilities of the entity. Accrual accounting also requires the reporting entity to provide notes of disclosure relating to information presented on the financial statements (Painter, 2006).
2.3 Challenges of Implementing Accrual Accounting

Despite the benefits discussed above one should not underestimate the substantial costs and risks associated with the implementation and maintenance of an accrual accounting system. Though accrual accounting initiative is associated with numerous benefits, its adoption by public organizations is often accompanied by several drawbacks and problems that may hinder the achievement of the anticipated benefits (Christiaens and Rommel, 2008). Despite the criticism expressed concerning the adoption of accruals in the context of public sector organizations, the United Nations aim at substituting the modified-cash accounting systems with accrual based accounting.

Challenges for implementing accrual accounting include among others, inadequacy of requested resources, lack of knowledge and expertise to implement the accrual based system, personnel reluctance and resistance to change, lack of top management support and lack of appropriate accounting software (Stamatiadis, 2009). The challenges are discussed in the subsections below.

2.3.1 High Cost of Introducing Accrual Based Accounting

The cost of introduction of accrual accounting has been known to be substantial though it is a difficult exercise to determine the cost/benefit of accrual accounting. However, the cost and timescale that should be allowed to achieve the necessary changes to the underlying accounting systems should be reliably estimated (Wynne, 2008). The costs associated with the adoption of an accrual based accounting system are continuous especially in terms of recruiting professional accountants with experience and knowledge of implementing an accrual based accounting system (Hyndman and Connolly, 2005). The public sector has unique information technology requirements caused by both size and the specialist responsibilities and activities of the organization and this has cost implications (Fee, 2003).

The costs of introducing accrual accounting include the costs of identifying and valuing existing assets, developing accounting policies, establishing accounting systems, including the purchase of computer systems and pilot testing the system, development of skills and training for both the preparers and users of financial information (IFAC, 2000).
2.3.2 Complexity in Accounting Process

Adopting accrual basis of the accounting introduces complexity into the accounting process. It requires decision making on issues such as what assets and liabilities to include or exclude, revenue recognition and many other issues. These decisions involve a lot of subjectivity in applying recognition criteria, though this is reduced by the application of accounting standards. Market absence causes some relevant consequences concerning definition, valuation, classification, depreciation and presentation of assets (Diamond, 2002).

An accrual basis accounting system is more complex than cash based system and the financial information report provided by an accrual-based system is more complex. The information may therefore not be used optimally at the operational level because of its complexity and may only be used by high-level management (Connolly and Hyndman, 2006). It has been argued that in some cases even financially literate persons found it difficult to get to grips with the complexity of financial reporting and even struggle to understand the reports (Wynne, 2008).

2.3.3 Difficulty in Establishing Opening Balance Sheet Figures

Transition from modified cash to the accrual accounting requires determination of opening balances to be reflected on the opening balance sheet. Successful transition to an accrual-based system heavily depends on the accuracy and reliability of the opening balance sheet figures. Detailed supporting documentation and narratives to support the opening balances are critical for audit purposes. This can be a very challenging and time-consuming process and requires use of judgment in establishing the beginning balances of assets and liabilities (Khan and Meyers, 2009).

When accrual accounting is implemented, valuation related issues arise especially for public sector specific assets such as infrastructure and heritage assets (Hepworth, 2003). The adoption of an accrual-based system provides an opportunity for management to exercise judgment in making decisions. Decision makers are therefore expected to be knowledgeable on the subject matter. The auditor’s participation is essential inorder to ensure that caution and due diligence is observed in areas where judgment is required (Hepworth, 2003)
2.3.4 Lack of Trained Personnel

The availability of competent personnel is crucial to successful implementation of accrual accounting. The non-availability of qualified staff was a significant barrier to the implementation of accrual accounting in Malaysia (Saleh and Pendelbury, 2006). A higher level of ability and expertise is needed to interpret and apply the financial information produced by the accrual system of accounting. Wynne in his study of implementation of accrual accounting system in the UK government found that existing levels of skills were inadequate to handle the new complexities associated with accrual accounting hence better skilled accountants and auditors were needed (Wynne, 2004). The lack of accounting skills led to implementation problems in Northern Ireland (Connolly and Hyndman 2006).

2.3.5 Inadequate Accounting Systems

New financial management information system (FMIS) implementation is usually a pre-requisite to the introduction of accrual accounting to cope with the increased complexity and reporting requirements. Accrual accounting also requires organizations to develop new ways of reporting and communicating financial information. In order to capture and analyze the increased accounting data and information, information technology systems often need change. Many public-sector entities use their IPSAS implementation as an opportunity to set up an enterprise-resource planning system or to upgrade their current system (PwC, 2011). The replacement of the financial management system requires huge financial resources that if not well planned may result to delay or complete failure of implementation of the accounting change.

2.3.6 Increased Time and Money Resources

The adoption of the accrual accounting method requires additional commitment of time and effort from staff. During the transition phase, depending on their available resources, the organizations will have to either rely on support from existing staff working for an extended period of time in addition to their regular duties or recruit additional staff. Property, Plant and Equipment (PPE) will require that the items be controlled, recognized, measured, depreciated and disclosed in notes to the Financial Statements, as opposed to the practice of immediately charging them to expenditures as stipulated in the modified cash accounting. This permanent control over PPE requires organizations to
designate staff and establish systems to ensure a full accounting cycle for PPE (Biraud, 2010).

2.3.7 Loss of Financial Management Control
Budgets determine the allocation of resources between the different expenditure programmes and also provide the legal authority for expenditure (FEE, 2003). The United Nations organizations took the decision not to switch to accruals based budgeting and problems might arise from the different bases of the budgetary and the financial accounts. Where the budget remains framed on a modified cash basis and the accounts are maintained on an accrual basis this results to loss of financial management control due to the systematic adjustments that have to be on the accounts. Public sector entities are required to prepare a statement of comparison of budget and actual amounts on a budgetary basis representing a comparison between budget amounts and actual amounts since the budget and financial statements are not prepared on a comparable basis.

2.3.8 Resistance to Change
Any changes in accounting systems and processes are frequently subject to resistance by the affected persons. The resistance to the adoption of accrual reporting is mainly due to lack of experience in the usefulness of accrual information for management purposes. Much focus has been placed on accrual reporting rather than promoting accrual accounting as the framework needed to enhance public sector management in the achievement of organization goals, resulting to resistance to the accounting change. According to Scapens (2006), if new rules are introduced which significantly differ from the organization’s shared values or organizational culture, it is likely to find opposition and resistance especially when this change is perceived as imposed.

2.3.9 Lack of Adequate Resources
Any change of an accounting system comes with serious difficulties and transient periods that create high resource requirements and within bureaucratic environments. Public sector organizational activities are characterized by lengthy and repetitive procedures that result to numerous implementation barriers thereby increasing the cost and time resource needs for the accounting change implementation (Christensen, 2002). According to Lawson (2005), significant resources are required to facilitate a smooth transition from one accounting system to another. The adoption of accrual-based accounting requires
significant investment in time and financial resources and this may necessitate transfer of labour and funds from other areas of the organization.

2.3.9 Lack of Staff Motivation and Financial Incentive
The identification of the transition barriers gives a clear picture about both volumes of work and financial resources required for successfully managing the transition process. The change of accounting system involves commitment of more time by the staff than in normal circumstances. The process of transition from one accounting system to another is very demanding and staff members are required to work extra hours to ensure successful implementation of the new system. Due to financial problems, the staff members are not adequately compensated for the extra time and effort and this causes resistance to the change (Ouda, 2003).

2.3.10 Lack of Top Management Commitment and Support
Top management’s interest and willingness to engage in transformative influences the success and failure of implementation accounting change. Management’s general interest with the reform initiative, prior experience with the accounting practices and active involvement for the managers will positively affect the level of reform adoption (Ridder, 2006). Research shows that managers sometimes impede and resist the diffusion of accounting practices (Jackson and Lapsley, 2003). Lack of top management support on the implementation of accounting change may result to dismal results on implementation of the systems. It may result in delays where deadlines are not met and the expected benefits are watered down by the costs of the delayed process.

2.4 Essential Pre-Conditions for the Introduction of Accrual Based Accounting
The transition to accrual accounting is a major cultural, administrative and technical change and in order to be successfully adopted, it must take place in phases with a clear plan of progress established from the outset. According to Barton (2009), maximum benefits of an accrual-based accounting system can only occur when an entity identifies and considers all the factors that may act as barriers to the implementation process. Lack of proper understanding of the pre-implementation barriers may result to misunderstanding between the various stakeholders involved in the implementation of the new accounting system. This may in turn increase the risks at stake throughout the implementation and post-implementation phases (Aggestam, 2010).
The transition to accrual accounting need to be well planned and organized by setting the right preconditions as failure to do so could defeat the whole purpose of public finance reform if the risks, costs and benefits of the switch, are not well understood. The costs of poorly managing the transition to accrual accounting can be significant and go well beyond the price of the hardware, software and training. The transition to accrual accounting entails much more than just the creation of a climate fit for its application, technical change in accounting policies or change in the way we present and interpret the numbers (Ouda, 2004).

Gracia, (2006) clustered the preconditions for successful implementation into three classes namely rules, information technology tools and users as shown in Figure 2.2 below.

![Figure 2.2: Change Requirements](source: (Gracia, 2006))

The way in which accounting standards are applied can lead to a number of potential risks that could seriously undermine the validity of the financial reports produced. These risks are reduced where certain preconditions are met before the accrual basis of accounting is adopted. These preconditions are discussed below:
2.4.1 Change Management
The management should be output rather than input oriented hence increased freedom on
decision making regarding resource utilization and performance measurement. Change
management is one of the most difficult things to since human behaviour will always
gravitate to the normal and the comfortable. Implementing accrual accounting must not
be a technical accounting exercise, it needs to involve a cultural change as well (OECD,
2003). A change in attitude is necessary to make new systems effective as institutional
inertia presents one of the biggest threats to the successful introduction of accrual
accounting (Woods, 2002).

It has been widely recognized that the introduction of accrual accounting in the public
sector requires a serious change in culture because instead of accrual accounting being
perceived as a financial reporting tool, it should be seen as an entirely new process of
financial management (Hepworth, 2003). The implementation of changes to financial
management systems may also require cultural or mind-shift changes especially where
senior staffs are expected to assume much greater responsibility for the financial
management of an entity (IFAC, 2003).

2.4.2 Information Technology Capability
An integrated management information system is a key ingredient to successful
implementation of any accounting change. The information system should be capable of
provide accounting, budgeting and financial management information centrally as
opposed to having different systems providing the required information. Introduction of
accrual accounting is unthinkable without availability of appropriate and affordable
standard software (Hepworth, 2003; Lüder and Jones, 2003). The system should be able
to respond to the new and additional requirements that arise from the introduction of
accrual accounting. The information system functionality should be accrual accounting
friendly as this plays a major role in setting a proper foundation for the switch to accrual
accounting.

2.4.3 Personnel Training and Motivation
There is a need for training of personnel to use an accrual accounting system and to
achieve the benefits from its operation. To successfully implement accrual accounting in
the public sector and to achieve the target benefits from that implementation, an entity requires appropriately trained and qualified accounting personnel, motivated staff through existence of appropriate incentive systems (Ouda, 2004).

FEE (2003) states that managers need to understand the differences between the information available under cash accounting system and the information available under an accrual accounting system and understand how they can use the accrual-based information to manage activities more efficiently and effectively. IFAC (2003) highlights the importance of staff training and explanation of the benefits expected from the change for them to appreciate the positive impact of the reforms. Such training needs should occur at all levels of the organization and need to be driven and owned by individual entities. The development of training strategies and the implementation of training programs should therefore be identified as project milestones.

2.4.4 Consultation and Co-ordination
Consultation and acceptance are indispensable to the introduction of accrual accounting since in absence of both there will be neither understanding nor acceptance. Consultation and coordination between departments implementing the accrual accounting system is fundamentally important in obtaining information about the required improvements and internal problems and constraints that may hinder the successful transition to accrual accounting (Ouda, 2004). The different stakeholders involved in the implementation of the accrual based accounting system need a culture change to embrace the benefits expected from the system as well as the costs involved in implementing the system (Hepworth, 2003).

2.4.5 Effective Communication
Effectively communication with all stakeholders is critical to the implementation of an accounting system change (Diamond, 2002). The acceptance of the change to accrual accounting must go beyond a relatively narrow group of technocrats for the change to be effective and sustainable (Hepworth, 2002). Effective and ongoing communication is crucial to obtain organization-wide acceptance and reduce resistance. Communicating the right message across to the right people, in the right place, and at the right time is key to effective communication. The objective is to communicate the changes and their impact
on the organization to all stakeholders, encourage staff to start thinking about the implications for their own areas of work, and build buy in for the change (Biraud, 2010).

2.4.6 Management Support
Top management support is critical towards successful implementation of an accrual based accounting system. Successful implementation of accounting change requires prominent and unambiguous support at the highest levels of the executive. Top management should actively take the lead to promote culture change, objectives for the change as well as the change timeline. The support of the top management is necessary to endorse and utilize the changed financial reporting as a result of the accounting change (Khan and Meyers, 2009). The tone at the top influences organizational behavior and staff commitment to the implementation of an accrual based accounting system.

2.4.7 Formulation and Revision of Accounting Policies
Accounting policies are defined as the specific principles, bases, conventions, rules and practices adopted by an entity in preparing and presenting financial statements. The transition to accrual accounting requires the establishment of a new set of accounting policies and review of existing financial management policies. Transition to an accrual based accounting system requires changes in accounting policies inorder to comply with accounting standards. Issues that are not specifically addressed by the accounting standards requires that decision makers diligently use judgment in selecting the most appropriate accounting policies to assure credibility and reliability of financial information (Khan and Meyers, 2009).

In an accrual based accounting system, recognition, valuation, measurement, impairment and de-recognition of assets and liabilities makes the system more complicated than cash or modified-cash accounting systems. This requires the exercise of judgment and technical skill with risks of errors and misstatements and hence the need for international accounting standards to reduce such risks and to provide guidance on acceptable accounting treatment of specific items. Asset management guidelines defining responsibility for the custody, safeguarding and maintenance of assets are required. Other areas where accounting policies need review or development are cash and debt management, inventory, receivables management and financial reporting (IFAC, 2003).
2.4.8 Involvement of External and Internal Auditor
Although it is essential that auditors maintain their independence, there are many benefits to be obtained from establishing a cooperative working relationship with the auditor at the beginning of the transition process. Consultation with the auditor would provide advice regarding the criteria that would be used in assessing the system or process that would meet audit requirements. An internal audit function would play a critical role on transition through liaising with external auditors (IFAC, 2011). According to Hepworth (2003), successful implementation of accrual accounting depends heavily upon the understanding of, and willingness to support, the system by the external auditor who should be involved in the process from the outset.

2.4.9 Effective Project Management Structure
There are numerous challenges associated with the process of transition from modified cash accounting to full accrual accounting. These challenges relate to the organization’s technical capability, administrative procedures, behavioral change or communication challenges. The transition involves a vast amount of work in the accounting arena and also major changes in business processes and practices. The challenges can be managed through a project management approach in adopting accrual accounting. Project management approach ensures that there is support from top management, communication and training plans are developed and managed and new accounting policies are written in a timely manner (Aggestam, 2010). Project management involves splitting the project into separate components that can then be managed by individuals with the appropriate skills and experience. The project should be well documented, have formal implementation plan, allocation of responsibility for the various tasks and milestones defined and their performance monitored (IFAC, 2011).

2.4.10 Capacity Building
There is a need for a considerable degree of institutional capacity building due to the variety and complexity of the new tasks to be undertaken during the implementation of accrual accounting. There is an urgent need for awareness creation, training for staff in the spending units to illustrate not only the technical changes required of them but also to demonstrate the positive advantages for them (McKendrick, 2007).
2.4.11 Tighter Internal Controls

Control systems must be strengthened in order to accommodate the increased complexity of accruals accounting. Accrual accounting will not improve the weaknesses of cash accounting where poor management and control exist, and it could even make matters worse. If financial control is not effective under the cash accounting system, it is likely to be even less effective under the accrual system (Hepworth, 2003). Organizations will have to enhance existing processes, create new ones and re-examine internal control frameworks to ensure that internal control and risk management are effective under the new accounting standards.

2.5 Chapter Summary

There has been a lot of research focused on the public sector especially in the field of changes in the accounting area. This chapter has identified the research literature that is relevant to this project’s objectives. The review concentrated on the bases of accounting in the public sector and specifically the transition from cash based accounting to accrual based accounting. The literature reviewed focused on the potential benefits that public sector organizations expect due to the decision to abandon cash accounting in favour of accrual accounting. Despite the benefits derived from adopting accrual accounting, it is apparent that there are also challenges that are encountered on implementation of the accrual system. These challenges have also been identified in this chapter. The chapter has also reviewed literature concerning the preconditions that are essential for successful implementation of the accounting changes.

The next chapter will discuss research methodology used including the research design, population, sampling method, sample size, data collection method/instruments, data analysis and presentation used in the research.
CHAPTER 3

3.0 RESEARCH METHODOLOGY

3.1 Introduction
This chapter highlights the various methods and procedures that were used in the research. The chapter addresses a range of matters. It justifies the study methodology and provides for the data collection techniques used. The chapter describes the research design, population, sampling method, sample size, data collection method/instruments, data analysis and presentation used in the research. The methodology ensures that the information needs requirements are fulfilled, data is collected in a systematic manner and the research objectives are met. Finally, the chapter ends with a summary.

3.2 Research Design
The central purpose of this study was to develop an understanding of accounting change and its working in the United Nations. This study employed a descriptive research design using a case study approach as a means to provide a deep understanding of how a specific organization as a unit of analysis adopted a new accounting system (Yin, 2009). According to Polit and Beck (2004), descriptive design is most appropriate when researcher intends to find out the respondents perception on the subject of study since it has the ability of representativeness (Polit and Beck, 2004).

According to Page and Meyer (2000), a descriptive case study is a study that describes a phenomenon or event as it exists without manipulation or control of any elements in the phenomenon or event under study hence useful in accounting research to provide insight into the accounting practice. Descriptive case studies describe accounting systems, techniques and practices used in organizations and hence useful in explaining the difference between accounting theory and accounting practice (Scapens, 2004).

3.3 Population and Sampling Design
3.3.1 Population
Population is the total number of people or elements that fit the specific set specifications of the study (Polit and Beck, 2006). According to these scholars, the target population is the interest group the researcher intends to study and to which the research result will be
For the purposes of this study, the population included all the 50 finance staff working in the WFP finance department in the Nairobi duty station. The staffs were all trained accountants and were involved in the implementation of accrual based accounting system.

3.3.2 Sampling Design
3.3.2.1 Sampling Frame
A sampling frame is the target population to which a researcher wishes to generalize the research findings. According to Burns and Grove (2001), a sampling frame includes the actual list of individuals included in the population and for each person in the target population or accessible population to have an opportunity to be selected for the sample, each person in the population must be identified. The 50 finance staff working in the WFP finance department in the Nairobi duty station formed the sampling frame.

3.3.2.2 Sampling Design
Patten (2004) defines an unbiased sample as one in which every member of a population has an equal opportunity of being selected in the sample and this should be the main criterion when evaluating the adequacy of a sample. Gay and Airasian (2003) assert that it is most likely to obtain a representative sample if random sampling technique is used. Simple random sampling was used in this study to help ensure an unbiased sample population.

3.3.2.3 Sample Size
A sample is a subgroup of the elements of the population selected for participation in the study (Malhotra, 2007). Gay and Airasian (2003) state that the first thing to do in the sample selection process is to identify and define the target population. Leedy and Ormrod (2005), stressed the need of a representative sample of the target population to enable survey results be generalized to the target population. Fraenkel and Wallen (2006) prefers that a researcher to draw a sample from the accessible population rather than the target population because the accessible population is realistic.

The sample in this study was based on a focus group of finance officers and finance assistants working in the WFP finance department in the Nairobi duty station. According
to Gay and Airasian (2003), a sample of 10% to 20% of the target population sufficiently represents the study population in a descriptive research. In this study, a sample of 5 to 10 would therefore be reasonable to use. However, according to Gorard (2003), a large sample size would be suitable despite the sampling selection technique used. To achieve sample representativeness, researcher can use random sampling coupled with confidence level and sample error. At 95% confidence level and a sampling error of 5%, there is likelihood that the sample will be representative of the population (Cohel, 2001). In this study, the population size was 50 finance staff members and at 95% confidence level and 5% sampling error, a sample size of 45 finance staff members was representative of the population.

3.4 Data Collection Methods
Data collection is a systematic process in which the researcher collects relevant information to achieve the research purpose and objectives. In collecting primary data, the study used a quantitative research method using a questionnaire that used five-point Likert scale questions and provided space for respondents to comment on any issues that may not have been reflected on the questionnaire (Bryman, 2008). This method has previously been used in numerous accounting studies investigating an accounting change in an organization (Dambrin, 2007; Sharma and Lawrence, 2008; Siti-Nabiha and Scapens, 2005). The survey questions were based on the research questions discussed in literature review.

Part one of the questionnaire provided data about the demographical characteristics of the respondents including age, level of academic qualification, professional qualifications, length of work experience. Part two captured the respondents perception regarding the benefits derived from introduction of accrual accounting. The respondents’ opinion on the challenges of introducing accrual accounting were captured in part three while part four captured the respondents’ perception on preconditions necessary for successful implementation of accrual accounting. Part five provided the respondents with the opportunity to make any additional comments and state in their opinion what they felt had not been covered on the questionnaire regarding the three research questions.
The survey questions were designed on the questionnaire to provide respondents with the opportunity to give their perception on a Likert scale the extent of their agreement (where five corresponded to totally agree) or disagreement (where one corresponded to totally disagree) on the 41 statements representing the three research questions. The questionnaire technique captured the views from 40 staff in finance department to obtain their views on the introduction of accrual accounting. Appendix II represent the sample questionnaire that was used for data collection for this study.

3.5 Research Procedure

In this study, data collection was through questionnaire. Pre-testing was done by administering the questionnaire to five respondents selected randomly who did not participate in the final data collection. The intention was to fine-tune the questionnaire for objectivity and efficiency of the process. The questionnaire consisted of five parts and contained forty-one questions seeking both factual and attitudinal data of introducing accrual-based accounting by World Food Programme and assessment of the employees' perceptions of this process change. The cover letter introduced the researcher, the reason for the study and its importance. The respondents were assured of confidentiality of the information provided through a confidentiality statement on the introductory letter.

A survey involving the use of questionnaires was conducted during 2013 in the finance department in order to gather the necessary data. The questionnaires were numbered for accountability purposes and a register of all questionnaires was maintained in order to track the responses from respondents. The survey instrument was administered requesting the respondents to express on a Likert scale the extent of their agreement or disagreement on forty-one statements representing the three research questions. The questionnaire was circulated manually to 45 finance staff working in WFP’s finance department. The staff provided a credible and reliable source of information on the impact of the accrual based accounting system in the organization owing to their advanced accounting knowledge and working experience. The questionnaire was based on the three research questions and was pre-tested to ascertain the suitability of the tool before the actual administration.

The questionnaire took an estimated thirty minutes to complete. One research assistant, trained on communication with respondents and on using the questionnaire tool assisted
with administering the refined questionnaire and data entry. The World Food Programme was chosen as the research site for this study mainly for reason that the organization was the first UN agency to produce accrual-based accounts hence suitable for the purpose of the study.

3.6 Data Analysis
Data analysis involves the drawing of inferences from raw data. It is important that raw data be well managed for ease of analysis (Boeije, 2010). For analysis of data obtained from questionnaires, descriptive analysis was used. Data analysis was performed by calculating the frequency percentage of information obtained from the general questionnaire. The mean as a measure of central tendency was calculated while standard deviation represented the measures of data dispersion. Due to the quantitative nature of the current research, Microsoft Excel package was used as a tool to analyze the data obtained from the questionnaires.

To obtain the correlation analysis statistics, a Statistical Package for the Social Sciences (SPSS) was used. The key objective of performing this analysis was to identify the relationship between the demographic characteristics of the respondents with their responses on the three research questions. The Pearson correlation coefficient was used to elaborate the differences in the relationships. It is pertinent to note that the strength of the relationship between two variables falls between -1 to +1. With a significance level of 0.05, the variables with a correlation coefficient of 0.1 to 0.29 were considered to be low correlated, those between 0.30 to 0.49 to be moderately correlated while a correlation coefficient above 0.5 to 1.0 was considered as high correlation (Pallant, 2007). The data was presented in tables and figures.

3.7 Chapter Summary
This chapter has outlined the research methodology utilized in a study of accrual accounting in a public sector setting. In this chapter the research design, population, sampling method sample size, data collection method/instruments, data analysis and presentation used in the research was described. The research method involved a survey questionnaire and data was analyzed using Microsoft excel application and SPSS
package. Descriptive case study method was chosen due to its ability to provide a rich understanding of the research phenomena.

The next chapter presents the empirical findings of this project while chapter five provides an analytical discussion of the findings based on the research questions, conclusions and recommendations for further research.
CHAPTER 4

4.0 RESULTS AND FINDINGS

4.1 Introduction

This chapter describes the results and findings of the study based on the three research questions. Tables and figures were used to present the data with brief explanations of the data obtained from the study. The chapter concludes with a summary of the findings.

A total of 45 copies of the survey questionnaires were distributed. Out of the 45 distributed questionnaires, 40 were returned representing a response rate of about 89%. In this study, 70% of the completed responses were received within the first three days and the balance of 30% by the end of the week.

4.2 Demographic Analysis

In this study, sample characteristics such as age, job experience, academic and professional qualifications were examined. The results of these descriptive characteristics are as described below and presented in on Figures 4.1 to 4.4.

4.2.1 Age of Respondents

As per Figure 4.1, 58% of the sample was in the age class of between 25 to 45 years representing the highest frequency while the lowest frequency was under the age class of below 25 years of age representing 10% of the sampled population. Thirteen percent of the respondents were over 55 years of age while 20% of the respondents were between the ages of 46 to 55 years of age. This implied that the respondents are within the most productive age bracket.

Figure 4.1 Age of the Respondents
4.2.2 Job Experience of Respondents
As per Figure 4.2 Staff with experience 5 to 10 years experiences had the highest frequency percentage of 50% while staff who had worked for the organization for over 15 years had the lowest frequency consisting of 15% of the sample. The results also show that 82% of the sampled staff members had worked for the organization for over 5 years.

This study investigated implementation of accrual accounting change for a period of five years. The survey results indicated that more than 82% of the respondents had more than 5 years’ work experience and therefore had exposure to the implementation of the accrual accounting change in the organization. This in turn implied that they had the ability to share their knowledge of the accounting change process and provide reliable and credible information regarding the implementation.

![Figure 4.2 Job Experience of the Respondents.](image)

4.2.3 Academic Qualifications
According to Figure 4.3, 38% had obtained bachelor’s degrees, 20% were holders of masters degree, with 13% being diploma holders and 30% being certificate holders. The respondents profile therefore implied that they were well educated and majority of the respondents had accounting background and training. Notably, a total of 58% of the respondents had attained university education.
4.2.4 Professional Qualifications
The results as indicated on Figure 4.4 shows that 90% of the respondents were professionally trained accountants with 60% being Certified Public Accountants and 10% being Chartered Accountants. It is therefore prudent to conclude that the respondents were qualified enough to answer questions on the questionnaire and the responses obtained can be considered of high quality and informative as far as the use of accrual accounting in the organization is concerned.

4.3 Benefits of Implementing Accrual Accounting
The respondent’s perceptions on the benefits realized through implementation of accrual accounting were obtained through the survey. The respondent expressed their views in terms of the extent with which they agreed or disagreed with each statement based on a five-point likert scale. The likert scale had two extremes with one point representing strong disagreement and five representing strong agreement. The respondent’s views regarding the benefits derived by the organization due to the adoption and implementation
of accrual-based accounting are as discussed below.

4.3.1 Improved Asset management

The results indicated that the respondents perceived improved asset management as the greatest benefit derived from the adoption of accrual based accounting. This was supported by the highest mean variable of 4.75 and a standard deviation 0.58. The results also indicate that a total 98% of the respondents strongly agreed (80%) or agreed (18%) that, accrual accounting resulted to improved asset management. Only 3% disagreed that adoption of accrual accounting contributed to improved asset management.

Table 4.1: Perception on Asset Management

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved Asset management</td>
<td>80%</td>
<td>18%</td>
<td>0%</td>
<td>3%</td>
<td>0%</td>
<td>4.75</td>
<td>0.58</td>
</tr>
</tbody>
</table>

4.3.2 Improved Consistency and Comparability of Financial Information

The second greatest perceived benefit of accrual based accounting as per the results was improved consistency and comparability of financial information reported with a mean variable of 4.7 and a standard deviation 0.6. The results also indicate that a total 98% of the respondents either strongly agreed (75%) or agreed (23%) that, accrual accounting resulted to improved consistency and comparability of financial information reported. Only 3% disagreed that accrual accounting resulted to improved consistency and comparability of financial information.

Table 4.2: Improved Consistency and Comparability of Financial Information

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved consistency and comparability of financial information reported</td>
<td>75%</td>
<td>23%</td>
<td>0%</td>
<td>3%</td>
<td>0%</td>
<td>4.70</td>
<td>0.60</td>
</tr>
</tbody>
</table>
4.3.3 Improved Liabilities Management
Improved liabilities management was ranked third on the list of benefits achieved with a total of 96% of the respondents either strongly agreeing (38%) or agreeing (58%) that this benefit was actually achieved. The respondents highly ranked the benefit with a high mean of 4.3 and a standard deviation of 0.64 obtained through the analysis. Three percent of the respondents were undecided while only about 3% disagreed that there was improved liabilities management as a result of introducing accrual-based accounting.

Table 4.3: Perception on Improved Liabilities Management

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved liabilities management</td>
<td>38%</td>
<td>58%</td>
<td>3%</td>
<td>3%</td>
<td>0%</td>
<td>4.30</td>
<td>0.64</td>
</tr>
</tbody>
</table>

4.3.4 Presentation of Accurate Financial Position of the Organization
A total of 88% of the respondents either strongly agreed (38%) or agreed (50%) that accrual accounting presented accurate financial position of the organization. A mean value of 4.1 and a standard deviation of 0.99 was obtained. Ten percent disagreed while 3% strongly disagreed that this benefit was realized in practice.

Table 4.4: Presentation of Accurate Financial Position of the Organization

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentation of accurate financial position of the organization</td>
<td>38%</td>
<td>50%</td>
<td>0%</td>
<td>10%</td>
<td>3%</td>
<td>4.10</td>
<td>0.99</td>
</tr>
</tbody>
</table>

4.3.5 Enhanced Transparency
Accrual accounting greatly enhanced transparency as supported by 38% of respondents strongly agreeing while 48% agreeing that this benefit was realized. A mean of 4.05 and a standard deviation of 1.05 supported this opinion. On the other hand, none of the respondents were undecided while a total of 16% either disagreed (13%) or strongly disagreed (3%) that accrual accounting enhanced transparency.
Table 4.5: Perception on Enhanced Transparency

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhanced transparency due to greater financial information provided</td>
<td>38%</td>
<td>48%</td>
<td>0%</td>
<td>13%</td>
<td>3%</td>
<td>4.05</td>
<td>1.05</td>
</tr>
</tbody>
</table>

4.3.6 Improved Disclosure and Measurement of Financial Information

Improved disclosure and measurement of financial information was also realized as a result of adopting accrual accounting. This is supported by the fact that a total of 75% of the respondents either strongly agreed (35%) or agreed (40%) that accrual accounting helped the organization in realizing the benefit. A mean of 3.95 and a standard deviation of 1.05 was obtained. On the other hand, 13% of the respondents were undecided and another total of 13% either disagreed (10%) or strongly disagreed (3%) that accrual accounting resulted to improved disclosure and measurement of financial information.

Table 4.6: Improved Disclosure and Measurement of Financial Information

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved disclosure and measurement of financial information</td>
<td>35%</td>
<td>40%</td>
<td>13%</td>
<td>10%</td>
<td>3%</td>
<td>3.95</td>
<td>1.05</td>
</tr>
</tbody>
</table>

4.3.7 Reduced and Better Management of Expenditure

A total of 78% respondents either strongly agreed (33%) or agreed (45%) that accrual accounting resulted to reduced and better measurement of expenditure due to proper cost allocation. A mean value of 3.93 and a standard deviation of 1.06 was obtained. Eight percent of the respondents were undecided, 13% disagreed while 3% strongly disagreed that this benefit was actually realized due to implementation of accrual accounting.
Table 4.7: Perception on Reduced and Better Management of Expenditure

<table>
<thead>
<tr>
<th>Benefit</th>
<th>n= 40</th>
<th>Percentages</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduced and better management of expenditure due to proper cost allocation</td>
<td></td>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Undecided</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
<td>Mean</td>
</tr>
<tr>
<td></td>
<td>33%</td>
<td>45%</td>
<td>8%</td>
<td>13%</td>
<td>3%</td>
<td>3.93</td>
<td>1.06</td>
</tr>
</tbody>
</table>

4.3.8 Improved Accountability

The results indicate that a total of 76% identified improved accountability as a benefit achieved through adoption of accrual accounting with 33% of the respondents strongly agreeing and 43% of the respondents agreeing that accrual accounting improved accountability. A mean value of 3.88 and a standard deviation of 1.12 was obtained. However, 10% of the respondents were undecided, another 10% disagreed, while 5% strongly disagreed that accrual accounting resulted to improved accountability.

Table 4.8: Perception on Improved Accountability

<table>
<thead>
<tr>
<th>Benefit</th>
<th>n= 40</th>
<th>Percentages</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved Accountability</td>
<td></td>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Undecided</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
<td>Mean</td>
</tr>
<tr>
<td></td>
<td>33%</td>
<td>43%</td>
<td>10%</td>
<td>10%</td>
<td>5%</td>
<td>3.88</td>
<td>1.12</td>
</tr>
</tbody>
</table>

4.3.9 Improved Decision Making

The respondents identified improved decision making through accurate and reliable information as a benefit resulting from implementing accrual accounting with a total of 73% either strongly agreeing (33%) or agreeing (40%) that this benefit accrued to the organization. A mean of 3.7 with a standard deviation of 1.31 was obtained. A total of 28% either disagreed (20%) or strongly disagreed (8%) that this benefit was achieved.

Table 4.9: Perception on Improved Decision Making

<table>
<thead>
<tr>
<th>Benefit</th>
<th>n= 40</th>
<th>Percentages</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved decision making through accurate and reliable information provided</td>
<td></td>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Undecided</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
<td>Mean</td>
</tr>
<tr>
<td></td>
<td>33%</td>
<td>40%</td>
<td>0%</td>
<td>20%</td>
<td>8%</td>
<td>3.70</td>
<td>1.31</td>
</tr>
</tbody>
</table>
4.3.10 Better Receivables Management

Improved receivables management due to completeness of information was achieved by the organization as a result of adopting accrual based accounting. This was supported by a total of 65% of the respondents with 30% strongly agreeing and 35% agreeing that the benefit was realized. A mean of 3.65 with a standard deviation of 1.24 was obtained. Ten percent were undecided while 20% and 5% disagreed and strongly disagreed respectively that accrual accounting improved receivables management.

Table 4.10: Perception on Better Receivables Management

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Percentages</th>
<th></th>
<th></th>
<th></th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Better receivables management due to completeness of information</td>
<td>30%</td>
<td>35%</td>
<td>10%</td>
<td>20%</td>
<td>5%</td>
<td>3.65</td>
</tr>
</tbody>
</table>

4.3.11 Improved Resource Allocation

A total of 65% of the respondents identified that accrual accounting resulted to improved resource allocation due to identification of full cost of activities with 30% strongly agreeing and 35% agreeing that the benefit was realized. A mean of 3.63 with a standard deviation of 1.3 was obtained. On the other hand, 13% of the respondents were undecided, another 13% disagreed while 10% strongly disagreed that accrual based accounting improved resource allocation.

Table 4.11: Perception on Improved Resource Allocation

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Percentages</th>
<th></th>
<th></th>
<th></th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved resource allocation due to identification of full cost of activities</td>
<td>30%</td>
<td>35%</td>
<td>13%</td>
<td>13%</td>
<td>10%</td>
<td>3.63</td>
</tr>
</tbody>
</table>

4.3.12 Improved Internal Control Systems

According to the respondent’s views, improved internal control systems was identified as a benefit derived from accrual accounting with a mean of 3.4 and standard deviation of 1.3 being obtained. Twenty five percent of the respondents strongly agreed while 28% agreed that accrual accounting resulted to improved internal control systems. On the other
hand, 20% were undecided, 18% disagreed while 10% strongly disagreed that accrual based accounting improved internal control systems.

Table 4.12: Perception on Improved Internal Control Systems

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Percentages</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved internal control systems</td>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Undecided</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
<td>Mean</td>
<td>Standard deviation</td>
</tr>
<tr>
<td></td>
<td>25%</td>
<td>28%</td>
<td>20%</td>
<td>18%</td>
<td>10%</td>
<td>3.40</td>
<td>1.30</td>
</tr>
</tbody>
</table>

4.3.13 Improved Financial Performance

According to the respondent’s views, the benefit rated lowest was improved financial performance through operational cost savings with a mean of 3.35 and standard deviation of 1.33 respectively. A total of 55% of the respondents identified improved financial performance through operational cost savings as a benefit with 25% strongly agreeing and 30% agreeing that the benefit was realized. However, 8% of the respondents were undecided, 30% disagreed and 8% strongly disagreed that the benefit was realized.

Table 4.13: Perception on Improved Financial Performance

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Percentages</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved financial performance through operational cost savings</td>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Undecided</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
<td>Mean</td>
<td>Standard deviation</td>
</tr>
<tr>
<td></td>
<td>25%</td>
<td>30%</td>
<td>8%</td>
<td>30%</td>
<td>8%</td>
<td>3.35</td>
<td>1.33</td>
</tr>
</tbody>
</table>

4.3.14 Correlation Analysis on Benefits of Accrual Accounting

In addition to the tables provided in previous sub-sections the significance of relationships between variables were summarized using Pearson correlation coefficients as presented on Table 4.14. The correlation results indicated that there was significant positive relationship between improved asset management and job experience (r=0.65, p<0.000), academic qualification (r=0.73, p<0.000) and professional qualification(r=0.66, p<0.000) of the respondents. Improved consistency and comparability of financial information had significant positive relationship to the job experience (r=0.44, p<0.010), academic qualification (r=0.58, p<0.000) and professional qualification (r=0.73, p<0.000) of the respondents. Significant positive correlation was also observed between improved
liabilities management and the job experience (r=0.51, p<0.000), academic qualification (r=0.45, p<0.004) and professional qualification (r=0.50, p<0.000) of the respondents.

Table 4.14: Pearson's Correlation Results for Benefits of Accrual Accounting

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Pearson's Correlation Job Experience</th>
<th>Academic Qualification</th>
<th>Professional Qualification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benefit 1</td>
<td>0.65*</td>
<td>0.73*</td>
<td>0.66*</td>
</tr>
<tr>
<td>Sig. (2 tailed)</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>n</td>
<td>40</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Benefit 2</td>
<td>0.44*</td>
<td>0.58*</td>
<td>0.73*</td>
</tr>
<tr>
<td>Sig. (2 tailed)</td>
<td>0.010</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>n</td>
<td>40</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Benefit 3</td>
<td>0.51*</td>
<td>0.45*</td>
<td>0.50*</td>
</tr>
<tr>
<td>Sig. (2 tailed)</td>
<td>0.000</td>
<td>0.004</td>
<td>0.000</td>
</tr>
<tr>
<td>n</td>
<td>40</td>
<td>40</td>
<td>40</td>
</tr>
</tbody>
</table>

*Correlation is significant at the 0.05 level (2-tailed)

Table 4.15: Variable Definitions - Benefits of Accrual Accounting

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Improved Asset management</td>
</tr>
<tr>
<td>2</td>
<td>Improved consistency and comparability of financial information reported</td>
</tr>
<tr>
<td>3</td>
<td>Improved liabilities management</td>
</tr>
</tbody>
</table>

4.4 Challenges of Implementing Accrual Accounting

Although the survey results discussed above indicates that implementation of accrual accounting systems resulted to substantial benefits to the organization, the analysis of the evidence showed that the majority of the survey’s respondents also identified numerous challenges associated with the implementation of the accrual-based accounting. This section details the respondent’s views on the challenges that were identified on the implementation of accrual accounting in the organization.

4.4.1 Inadequate Financial Information System

The major challenge was the inadequate financial information system to handle accrual accounting system requirements with a mean value of 4.63 and a standard deviation of 0.49. Sixty three percent of the respondents strongly agreed while 43% agreed that this was the greatest challenge of implementing accrual accounting. None of the respondents disagreed that this was a challenge.
Table 4.16: Perception on Inadequate Financial Information System

<table>
<thead>
<tr>
<th>Challenge</th>
<th>n=40</th>
<th>Percentages</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadequate financial information system to handle accrual accounting</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>requirements</td>
<td>Mean</td>
<td>Strongly Agree</td>
<td>Strongly Disagree</td>
<td>4.63</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>63%</td>
<td>38%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Agree</td>
<td>38%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Undecided</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Disagree</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

4.4.2 High Cost of Implementation of the System

High cost of implementation of accrual accounting was identified and ranked as the second major challenge of implementing accrual accounting with a mean value of 4.55 and standard deviation of 0.63. A total of 98% of the respondents identified high cost as a major challenge on implementation of accrual accounting where 60% strongly agreed and 38% agreed that this was a major challenge. Only 3% disagreed that this was a challenge.

Table 4.17: Perception on High Cost of Implementation of the System

<table>
<thead>
<tr>
<th>Challenge</th>
<th>n=40</th>
<th>Percentages</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>High cost of implementation of the system</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>60%</td>
<td>38%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Agree</td>
<td>38%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Undecided</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Disagree</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Mean</td>
<td>4.55</td>
<td>0.63</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.4.3 Lack of Adequate Resources

Lack of adequate resources was also highly ranked as a major challenge to the implementation process with each a mean of 4.38 and standard deviation of 0.53. Forty percent of respondents strongly agreed and 58% agreed with only 3% being undecided on whether lack of adequate resources was a challenge to the implementation of accrual accounting.

Table 4.18: Perception on Lack of Adequate Resources

<table>
<thead>
<tr>
<th>Challenge</th>
<th>n=40</th>
<th>Percentages</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of adequate resources</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>40%</td>
<td>58%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Agree</td>
<td>58%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Undecided</td>
<td>3%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Disagree</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Mean</td>
<td>4.38</td>
<td>0.53</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4.4.4 Increased Time and Money Resource Needs

Increased time and money resource was identified as a major challenge to the implementation of accrual accounting with a total of 95% of respondents either strongly agreeing (45%) or agreeing (50%) that this was a challenge. On the other hand, 3% of the respondents were undecided and another 3% disagreed that this was a challenge to the implementation of accrual accounting. None of the respondents strongly disagreed that this was a challenge to the implementation of accrual accounting. A mean of 4.38 and standard deviation of 0.66 was obtained.

Table 4.19: Perception on Increased Time and Money Resource Needs

<table>
<thead>
<tr>
<th>n=40</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Challenge</td>
</tr>
<tr>
<td></td>
<td>Increased time and money resource needs.</td>
</tr>
</tbody>
</table>

4.4.5 Difficulty in Establishing the Opening Balance Sheet Figures

The respondents also identified difficulty in establishing the opening balance sheet figures as a challenge to the implementation process with a mean of 4.35 and standard deviation of 0.99. Fifty five percent of respondents strongly agreed and 38% agreed that establishing the opening balance sheet figures was a challenge to the implementation of accrual accounting. However, 3% disagreed and 5% strongly disagreed that this was a challenge to the implementation.

Table 4.20: Difficulty in Establishing the Opening Balance Sheet Figures

<table>
<thead>
<tr>
<th>n=40</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Challenge</td>
</tr>
<tr>
<td></td>
<td>Difficulty in establishing the opening balance</td>
</tr>
</tbody>
</table>

figures |

4.4.6 Lack of Staff Motivation and Financial Incentives

Lack of staff motivation and financial incentive to implement the new change was identified as a challenge to the implementation process with mean of 3.9 and a standard deviation of 1.2. Thirty five percent of respondents strongly agreed and 45% agreed that lack of staff motivation and financial incentive to implement the new change was a
challenge to the implementation of accrual accounting. However, 3% of the respondents were undecided, 10% disagreed and 8% strongly disagreed that this was a challenge to the implementation.

Table 4.21: Perception on Lack of Staff Motivation and Financial Incentives

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of staff motivation and financial incentives to implement the new change</td>
<td>35%</td>
<td>45%</td>
<td>3%</td>
<td>10%</td>
<td>8%</td>
<td>3.90</td>
<td>1.20</td>
</tr>
</tbody>
</table>

4.4.7 Loss of Financial Management Control

Twenty percent of the respondents strongly agreed and 25% agreed that loss of financial management control was a challenge to implementation of accrual accounting. However, a total of 56% of the respondents did not perceive this as a challenge where 18% were undecided, 23% disagreed and 15% strongly disagreed that loss of financial management control was a challenge to implementation of accrual accounting. A mean of 3.13 and a standard deviation of 1.36 were obtained.

Table 4.22: Perception on Loss of Financial Management Control

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loss of financial management control</td>
<td>20%</td>
<td>25%</td>
<td>18%</td>
<td>23%</td>
<td>15%</td>
<td>3.13</td>
<td>1.36</td>
</tr>
</tbody>
</table>

4.4.8 Complexity of the Accrual Accounting Process

Complexity of the accrual accounting process was identified as a challenge to implementation of accrual accounting with a mean of 2.95 and a standard deviation of 1.45. A total of 48% of the respondents identified complexity of the accrual accounting process as a challenge of implementation where 18% strongly agreed and 30% agreed that this was a challenge. On the other hand, 3% of the respondents were undecided, 30% disagreed and 20% strongly disagreed that complexity of the accrual accounting process was a challenge to the implementation resulting to a total of 53% of the respondents.
Table 4.23: Perception on Complexity of the Accrual Accounting Process

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complexity of the accrual accounting process</td>
<td>18%</td>
<td>30%</td>
<td>3%</td>
<td>30%</td>
<td>20%</td>
<td>2.95</td>
<td>1.45</td>
</tr>
</tbody>
</table>

4.4.9 Lack of Trained and Qualified Personnel

The lack of trained and qualified personnel to implement the system was ranked third from the bottom of the challenges that affected the implementation process with a mean of 2.53 and standard deviation of 1.50. Fifteen percent of the respondents strongly agreed and 20% agreed that lack of trained and qualified personnel to implement the system was a challenge to implementation of accrual accounting. However a total of 66% of the respondents did not perceive this as a challenge where 3% were undecided, 28% disagreed and 35% strongly disagreed that this was a challenge to implementation of accrual accounting.

Table 4.24: Perception on Lack of Trained and Qualified Personnel

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of trained and qualified personnel to implement the system</td>
<td>15%</td>
<td>20%</td>
<td>3%</td>
<td>28%</td>
<td>35%</td>
<td>2.53</td>
<td>1.50</td>
</tr>
</tbody>
</table>

4.4.10 Lack of Top Management Commitment and Support

Lack of top management commitment and support was identified as a challenge to accrual accounting implementation with 15% strongly agreeing and 13% agreeing that it was a challenge. On the other hand, a total of 74% did not identify lack of top management commitment and support as a challenge where 23% disagreed, 48% strongly disagreed and 3% were undecided on whether this was a challenge. A mean of 2.51 and standard deviation of 1.5 was obtained.
Table 4.25: Perception on Lack of Top Management Commitment and Support

<table>
<thead>
<tr>
<th>Challenge</th>
<th>n=40</th>
<th>Percentages</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Undecided</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
<td>Mean</td>
<td>Standard deviation</td>
</tr>
<tr>
<td>Lack of top Management commitment and support</td>
<td>15%</td>
<td>13%</td>
<td>3%</td>
<td>23%</td>
<td>48%</td>
<td>2.51</td>
<td>1.51</td>
</tr>
</tbody>
</table>

4.4.11 Resistance to Change

Fourteen percent of the respondents strongly agreed and another 14% agreed that resistance to change was a challenge to implementation of accrual accounting. However, a total of 71% of the respondents did not identify this as a challenge where 20% disagreed and 51% strongly disagreed that this was a challenge to implementation of accrual accounting. A mean of 2.20 and standard deviation of 1.53 was obtained.

Table 4.26: Perception on Resistance to Change

<table>
<thead>
<tr>
<th>n=40</th>
<th>Percentages</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Challenge</td>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Undecided</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
<td>Mean</td>
</tr>
<tr>
<td>Resistance to change</td>
<td>14%</td>
<td>14%</td>
<td>0%</td>
<td>20%</td>
<td>51%</td>
<td>2.20</td>
</tr>
</tbody>
</table>

4.4.12 Correlation Analysis on Challenges of Implementing Accrual Accounting System in relation to demographic characteristics

In addition to the tables provided in previous sub-sections the significance of relationships between variables were summarized using Pearson correlation coefficients as presented on Table 4.27. The correlation results indicated that there was significant positive relationship between inadequate financial information system to handle accrual accounting system requirements and job experience ($r=0.74$, $p<0.000$), academic qualification ($r=0.67$, $p<0.000$) and professional qualification ($r=0.76$, $p<0.000$) of the respondents. There was significant positive relationship between high cost of implementing the system with the job experience ($r=0.67$, $p<0.000$), academic qualification ($r=0.54$, $p<0.000$) and professional qualification ($r=0.40$, $p<0.010$) of the respondents. Significant positive relationship also existed between increased time and money resource needs and job experience ($r=0.59$, $p<0.000$), academic qualification($r=0.63$, $p<0.000$) and professional qualification ($r=0.73$, $p<0.000$) of the respondents.
Table 4.27 Pearson's Correlation Results for the Challenges of Implementing Accrual Accounting

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Job Experience</th>
<th>Academic Qualification</th>
<th>Professional Qualification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Challenge 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson’s Correlation Sig. (2 tailed)</td>
<td>0.74*</td>
<td>0.67*</td>
<td>0.76</td>
</tr>
<tr>
<td>n</td>
<td>40</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Challenge 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson’s Correlation Sig. (2 tailed)</td>
<td>0.67*</td>
<td>0.54*</td>
<td>0.40*</td>
</tr>
<tr>
<td>n</td>
<td>40</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Challenge 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson’s Correlation Sig. (2 tailed)</td>
<td>0.59*</td>
<td>0.63*</td>
<td>0.73*</td>
</tr>
<tr>
<td>n</td>
<td>40</td>
<td>40</td>
<td>40</td>
</tr>
</tbody>
</table>

*Correlation is significant at the 0.05 level (2-tailed)

Table 4.28 Variable Definitions – Challenges of Implementing Accrual Accounting

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Inadequate financial information system to handle accrual accounting system requirements</td>
</tr>
<tr>
<td>2</td>
<td>High cost of implementation of the system</td>
</tr>
<tr>
<td>3</td>
<td>Increased time and money resource needs.</td>
</tr>
</tbody>
</table>

4.5 Preconditions for successful implementation of accrual accounting

The respondents recognized that there were some essential preconditions that were necessary for the successful implementation of accrual accounting as discussed below. The respondent expressed their views in terms of the extent with which they agreed or disagreed with each statement based on a five-point likert scale. The likert scale had two extremes with one point representing strong disagreement and five representing strong agreement. This section details the respondent’s ranking of preconditions that they considered important in successful implementation of accrual accounting.

4.5.1 Information Technology Capability

The most important precondition was information technology capability through upgrading or replacing existing financial information systems with a mean 4.35 and a standard deviation of 0.53. A total of 98% of respondents identified this as a very important precondition with 38% strongly agreeing and 60% agreeing that information technology capability is an essential precondition for successful implementation of
accrual accounting. None of the respondents disagreed or strongly disagreed but 3% were undecided on information technology as an essential precondition.

Table 4.29: Perception on Information Technology Capability

<table>
<thead>
<tr>
<th>Pre-condition</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information technology capability through upgrading or replacing existing financial information systems</td>
<td>38%</td>
<td>60%</td>
<td>3%</td>
<td>0%</td>
<td>0%</td>
<td>4.35</td>
<td>0.53</td>
</tr>
</tbody>
</table>

4.5.2 Consultation and Co-Ordination Within and Across Departments

Consultation and co-ordination within and across departments implementing accrual accounting was also ranked highly as an essential precondition for successful implementation of accrual accounting. Forty percent of the respondents strongly agreed, 55% agreed, 3% were undecided and another 3% disagreed that this was an essential precondition for successful implementation of accrual accounting. A mean value of 4.33 and a standard deviation of 0.65 was obtained.

Table 4.30: Consultation and Co-Ordination Within and Across Departments

<table>
<thead>
<tr>
<th>Pre-condition</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consultation and co-ordination by departments implementing accrual accounting</td>
<td>40%</td>
<td>55%</td>
<td>3%</td>
<td>3%</td>
<td>0%</td>
<td>4.33</td>
<td>0.65</td>
</tr>
</tbody>
</table>

4.5.3 Capacity Building

The respondents also identified capacity building through awareness, training and resource provision as having a major impact on the successful implementation of accrual accounting with a mean value of 4.33 and standard deviation of 0.82. A total of 95% of the respondents identified capacity building through awareness, training and resource provision as a precondition for successful implementation of accrual accounting where 45% strongly agreed and 50% agreed to this. On the other hand, none of the respondents
were undecided, 3% disagreed and another 3% strongly disagreed that this was an essential precondition for successful implementation of accrual accounting.

Table 4.31: Capacity Building through Awareness, Training, and Resource Provision

<table>
<thead>
<tr>
<th>Pre-condition</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity building through awareness, training and resource provision</td>
<td>45%</td>
<td>50%</td>
<td>0%</td>
<td>3%</td>
<td>3%</td>
<td>4.33</td>
<td>0.82</td>
</tr>
</tbody>
</table>

4.5.4 Formulation of New and Amending Existing Accounting Policies

Formulation of new and amending existing accounting policies was identified as an essential precondition for the successful implementation of accrual accounting with a mean of 4.23 and standard deviation of 0.82. A total of 91% of the respondents either strongly agreed (39%) or agreed (52%) that this was an essential precondition. However, 5% of the respondents were undecided, 2% disagreed and another 2% strongly disagreed that this was a precondition necessary for successful implementation of accrual accounting.

Table 4.32: Formulation of New and Amending Existing Accounting Policies

<table>
<thead>
<tr>
<th>Pre-condition</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formulation of new and amending existing accounting policies to cater for the requirements of accrual accounting</td>
<td>39%</td>
<td>52%</td>
<td>5%</td>
<td>2%</td>
<td>2%</td>
<td>4.23</td>
<td>0.82</td>
</tr>
</tbody>
</table>

4.5.5 Top Management Support and Commitment

The respondents also identified top management support and commitment to successful transition as a precondition for successful implementation of accrual accounting with a mean of 4.10 and a standard deviation of 0.83. Thirty percent of the respondents strongly agreed and 58% agreed to this. On the other hand, 8% of the respondents were undecided, 3% disagreed and 3% strongly disagreed that this was an essential precondition for successful implementation of accrual accounting.
Table 4.33: Perception on Top Management Support and Commitment

<table>
<thead>
<tr>
<th>Pre-condition</th>
<th>Percentages</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top management support and commitment to</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>successful transition</td>
<td>30%</td>
<td>58%</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td>3%</td>
<td>3%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.10</td>
<td>0.83</td>
<td></td>
</tr>
</tbody>
</table>

4.5.6 Personnel Training and Incentives that Promotes Staff Motivation

The respondents also identified personnel training and incentives that promote staff motivation as a precondition for successful implementation of accrual accounting with a mean of 4.10 and a standard deviation of 0.83. Thirty percent of the respondents strongly agreed and 60% agreed to this. None of the respondents strongly disagreed or undecided but 10% of the respondents disagreed that personnel training and incentives that promote staff motivation was an essential precondition for successful implementation of accrual accounting.

Table 4.34: Personnel Training and Incentives That Promotes Staff Motivation

<table>
<thead>
<tr>
<th>Pre-condition</th>
<th>Percentages</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel training and incentives that</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>promotes staff motivation.</td>
<td>30%</td>
<td>60%</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>10%</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.10</td>
<td>0.83</td>
<td></td>
</tr>
</tbody>
</table>

4.5.7 Communication to Both Internal and External Stakeholders

Effective and ongoing communication to both internal and external stakeholders was identified by a total of 91% of the respondents an essential precondition for successful implementation of accrual accounting with a mean of 4.05 and a standard deviation of 0.96. Out of these, 28% strongly agreed and 63% agreed that this was an essential precondition. On the other hand, 3% of the respondents were undecided, 5% disagreed while 3% strongly disagreed that this was a necessary precondition for successful implementation of accrual accounting.
Table 4.35: Effective Communication Internal and External Stakeholders

<table>
<thead>
<tr>
<th>Pre-condition</th>
<th>Percentages</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective and ongoing communication to both internal and external stakeholders</td>
<td>28%</td>
<td>63%</td>
<td>3%</td>
</tr>
</tbody>
</table>

4.5.8 Tight Internal Controls

A total of 78% the respondents also identified tight internal controls due to increased complexity of transactions as a precondition for successful implementation of accrual accounting with a mean of 3.98 and a standard deviation of 1.08. Out of these, 38% strongly agree and 40% agreed that this was an essential precondition. On the other hand 8% of the respondents were undecided, 13% disagreed while 3% strongly disagreed that tight internal controls due to increased complexity of transactions was necessary for successful implementation of accrual accounting.

Table 4.36: Tight Internal Controls Due to Increased Complexity of Transactions

<table>
<thead>
<tr>
<th>Pre-condition</th>
<th>Percentages</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tight internal controls due to increased complexity of transactions</td>
<td>38%</td>
<td>40%</td>
<td>8%</td>
</tr>
</tbody>
</table>

4.5.9 Effective Project Management Structure

A total of 75% of the respondents perceived effective project management structure as a precondition for successful implementation of accrual accounting with a mean of 3.95 and a standard deviation of 1.05. Out of these, 35% strongly agreed and 40% agreed that this was an essential precondition. On the other hand 13% of the respondents were undecided, 10% disagreed while 3% strongly disagreed that this was a precondition necessary for successful implementation of accrual accounting.
Table 4.3: Perception on Effective Project Management Structure

<table>
<thead>
<tr>
<th>Pre-condition</th>
<th>Percentages</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective project management structure</td>
<td>35%</td>
<td>40%</td>
<td>13%</td>
<td>10%</td>
<td>3%</td>
<td>3.95</td>
<td>1.05</td>
</tr>
</tbody>
</table>

4.5.10 Involvement of External and Internal Auditor

Involvement of external and internal auditor throughout the implementation process was identified as an essential precondition by 78% of the respondents with a mean and standard deviation of 3.85 and 1.15 respectively. Thirty percent of the respondents strongly agreed while 48% agreed that this was a precondition necessary for successful implementation of accrual accounting. However, a total of 22% of the respondents did not identify this as a precondition with 6% being undecided, 8% disagreeing and another 8% strongly disagreeing that involvement of external and internal auditor was necessary for successful implementation of accrual accounting.

Table 4.38: Perception on Involvement of External and Internal Auditor

<table>
<thead>
<tr>
<th>Pre-condition</th>
<th>Percentages</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Involvement of external and internal auditor</td>
<td>30%</td>
<td>48%</td>
<td>6%</td>
<td>8%</td>
<td>8%</td>
<td>3.85</td>
<td>1.15</td>
</tr>
</tbody>
</table>

4.5.11 Change of Management Culture

Finally, change of management culture to focus on output instead of input was ranked at the bottom of the preconditions with a mean of 3.65 and a standard deviation of 1.06. Twenty five percent of the respondents strongly agreed while 33% agreed that this was an essential precondition for successful implementation of accrual accounting. However, a high percentage of the respondents (28%) were undecided as to whether change of management culture was an essential precondition for successful implementation of accrual accounting. Thirteen percent of the respondents disagreed while 3% disagreed that this was an essential precondition.
Table 4.39: Perception on Change of Management Culture

<table>
<thead>
<tr>
<th>Pre-condition</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly Agree</td>
</tr>
<tr>
<td>Change of management culture to focus on output instead of input</td>
<td>25%</td>
</tr>
</tbody>
</table>

4.5.12 Correlation Analysis on Pre-Conditions of Successful Implementation of Accrual Accounting System

In addition to the tables provided in previous sub-sections the significance of relationships between variables were summarized using Pearson correlation coefficients as presented on Table 4.40. The correlation results indicated that there was significant positive relationship between information technology capability through upgrading or replacing existing financial information with job experience (r=0.46, p<0.010), academic qualification (r=0.51, p<0.000) and professional qualification (r=0.64, p<0.000) of respondents. Significant positive relationship also existed between consultation and co-ordination within and across departments implementing accrual accounting and job experience (r=0.47, p<0.008), academic qualifications (r=0.46, p<0.010) and professional qualifications (r=0.64, p<0.000) of the respondents.

Similarly, significant positive relationship existed between capacity building through awareness, training and resource provision and job experience (r=0.78, p<0.000), academic qualifications (r=0.54, p<0.000) and professional qualifications (r=0.77, p<0.000) of the respondents.

Table 4.40 Pearson's Correlation Results for Essential Preconditions

<table>
<thead>
<tr>
<th>Pre-condition</th>
<th>Age</th>
<th>Job Experience</th>
<th>Academic Qualification</th>
<th>Professional Qualification</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pearson’s Correlation Sig. (2 tailed) n</td>
<td>0.46* 0.010 40</td>
<td>0.51* 0.000 40</td>
<td>0.64* 0.000 40</td>
</tr>
<tr>
<td>Pre-condition 1</td>
<td>Age</td>
<td>Job Experience</td>
<td>Academic Qualification</td>
<td>Professional Qualification</td>
</tr>
<tr>
<td></td>
<td>Pearson’s Correlation Sig. (2 tailed) n</td>
<td>0.47* 0.008 40</td>
<td>0.46* 0.010 40</td>
<td>0.58* 0.000 40</td>
</tr>
<tr>
<td>Pre-condition 2</td>
<td>Age</td>
<td>Job Experience</td>
<td>Academic Qualification</td>
<td>Professional Qualification</td>
</tr>
<tr>
<td></td>
<td>Pearson’s Correlation Sig. (2 tailed) n</td>
<td>0.78* 0.000 40</td>
<td>0.54* 0.000 40</td>
<td>0.77* 0.000 40</td>
</tr>
<tr>
<td>Pre-condition 3</td>
<td>Age</td>
<td>Job Experience</td>
<td>Academic Qualification</td>
<td>Professional Qualification</td>
</tr>
</tbody>
</table>

*Correlation is significant at the 0.05 level (2-tailed)
Table 4.41 Variable Definitions - Pre-Conditions for Successful Implementing Accrual Accounting

<table>
<thead>
<tr>
<th>Pre-condition</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Information technology capability through upgrading or replacing existing financial information systems</td>
</tr>
<tr>
<td>2</td>
<td>Consultation and co-ordination within and across departments implementing accrual accounting</td>
</tr>
<tr>
<td>3</td>
<td>Capacity building through awareness, training and resource provision</td>
</tr>
</tbody>
</table>

4.6 Chapter Summary

The data analysis evidently indicated that improved asset management, improved consistency and comparability of financial information reported and improved liabilities management were the major benefits achieved from the implementation of accrual accounting. The major challenges associated to the implementation of accrual accounting were identified as inadequate financial information system to handle accrual accounting system requirements, high cost of implementation the system and lack of adequate resources. Data analysis also indicated that information technology capability through upgrading or replacing existing financial information systems, consultation and co-ordination within and across departments implementing accrual accounting and capacity building through awareness, training and resource provision were the most essential preconditions for successful implementation of accrual accounting.

The next chapter brings out discussion and conclusions of the major findings and finally, recommendations for further research.
CHAPTER 5

5.0 DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction
This chapter discusses the issues further and relates the research findings of this study to the findings of previous studies presented in the literature review. It begins with a summary of the important elements of the research, discusses the major findings based on research questions, draws conclusions from the research findings and ends with recommendations for further research.

5.2 Summary
The purpose of the study was to assess the effect of the implementation of accrual-based accounting by World Food Programme. The study focused on the benefits, challenges and essential preconditions of implementing accrual accounting. The study sought to establish firstly, the benefits derived from the adoption of accrual based accounting system, secondly the challenges of implementing the accrual based accounting system and lastly the essential pre-conditions for successful implementation of the accrual based accounting.

In order to investigate the three research questions, the study employed a descriptive case study approach as a means to provide a deep understanding of how a United Nations organization as a unit of analysis adopted accrual accounting system. The study population comprised of all the 50 finance staff working in the WFP finance department in the Nairobi duty station. Simple random sampling was used to help ensure an unbiased sample population resulting to a sample size of 45 finance persons. The study used a quantitative survey questionnaire that used five-point Likert scale questions. The questionnaire was distributed to the staff working in the finance department using drop and pick method.

Data analysis was performed by calculating the frequency percentage of information obtained from the survey questionnaire. The mean as a measure of central tendency was calculated while standard deviation represented the measures of data dispersion. Microsoft Excel package was used as a tool to analyze the data obtained from the questionnaires. A correlation analysis was performed using the Statistical Package for the
Social Sciences (SPSS) software with the objective of identifying the degree of relationship between respondents’ opinion on the three research questions and the descriptive characteristics of the respondents. The results of the findings based on the three research questions are as discussed below.

The findings revealed that the greatest benefits derived from the implementation of accrual-based accounting were improved asset management and improved consistency and comparability of financial information reported. Improved internal control systems and improved financial performance through operational cost savings were perceived as the least achieved benefits from the adoption of accrual based accounting. It was also established that significant positive correlation existed between the benefits of accrual accounting and the job experience, academic and professional qualification of respondents.

The major challenges associated to the implementation of accrual accounting were identified as inadequate financial information system to handle accrual accounting system requirements and high cost of implementing the system. However, lack of top Management commitment and support and resistance to change were perceived as the least of the challenges experienced on the implementation of accrual based accounting. Significant positive correlation was observed between the challenges of implementing accrual accounting and respondents’ demographic characteristics of job experience, academic and professional qualification.

The respondents also agreed that information technology capability through upgrading or replacing existing financial information systems plus consultation and co-ordination within and across departments implementing accrual accounting were the most essential preconditions for successful implementation of accrual accounting. Involvement of external and internal auditor throughout the implementation process and change of management culture to focus on output instead of input were ranked at the bottom of the preconditions for the successful implementation of accrual accounting. There was significant positive correlation between the results on the essential preconditions for successful implementation of accrual based accounting and the respondents’ demographic characteristics of job experience, academic and professional qualifications.
5.3 Discussion

5.3.1 Benefits of Adopting Accrual Accounting

The survey results showed that the respondents differently ranked the benefits accrued from the implementation of accrual accounting. The respondents perceived improved asset management as the major benefits derived from the implementation of accrual accounting thus confirming the main findings reported in the existing literature. The studies include Connolly and Hyndman (2006) who concluded that public entities are able to improve their management of assets following the introduction of accrual accounting while Wynne (2008) concluded that public entities effectively identify and sell assets that are no longer needed. According to Champoux (2006), public entities also receive better information for the purposes of asset management and cost calculations.

Improved consistency and comparability of financial information was perceived as a major benefit of accrual accounting. This is consistent with existing literature. According to FEE (2008), the use of the accrual basis for public financial statements increases comparability of public sector organizations, whilst retaining the comparability of an individual organization on a period-by-period basis. Improved liabilities management was also identified as a major benefit of accrual accounting. According to Kordestani and Iranshahri (2010), accrual accounting reflects organization's long-term liabilities and total financial situation better. According to Stamatiadis (2009), benefits of accrual accounting were summarized as improved monitoring of assets and liabilities and improved consistency and comparability of financial information reported.

The respondents also highly perceived that accrual accounting presented accurate financial position of the organization, resulted to enhanced transparency and improved disclosure and measurement of financial information. According to Thomas (2007), accrual accounting possesses advantages for public sector such as better facilitation of planning and management of financial resources, performance evaluation, presenting financial position and its evaluation, and assessment of financial performance. Accrual accounting helps improve the manager’s decision-making, provides a more transparent service cost and activities and increases accountability of managers (Karbasi, Yazdi and Tarighi (2010). Chan (2003), in his study concluded that accrual accounting offers an improved depiction of public sector organizations’ financial condition.
Reduced and better management of expenditure, improved accountability and improved decision-making were also identified as benefits that were derived from implementation of accrual accounting. According to Kordestani and Iranshahri (2010), accrual accounting has more power to assess the effectiveness and organization performance results, results to better management and control the costs of the activities as well as increases accountability. Accrual accounting also results to reduction and better measurement of public expenditures, better financial management and improved performance measurements (Pessina and Steccolini, 2007; OECD, 2005).

5.3.2 Challenges of Implementing Accrual Based Accounting
The survey results confirm the main findings in the existing literature where the respondent’s perceptions revealed that the major challenges of implementing accrual accounting were inadequate financial information system to handle accrual accounting system requirements and high cost of implementation the system (Lawson (2005). Lack of adequate resources and increased time and money resource needs were also highly ranked by the respondents. The respondent’s perceptions are consistent with existing literature where Wyk (2007), argued that some of the main obstacles in implementing accrual accounting in the public sector were the need for new information systems, need for recording assets in the system and the need for changing the mindsets of the officials.

Difficulty in establishing the opening balance sheet figures was also highly ranked as a major challenge to the implementation of accrual accounting. In consistence with the respondent’s perceptions, Hepworth (2003), based on his experience in Eastern Europe, concluded that the adoption of accrual-based accounting requires significant investment of resources both in terms of finance and in terms of time. This may imply that other areas of the organization experience insufficient resource allocation. Establishing the opening balance sheet figures is a very challenging and time-consuming process and requires use of judgment in establishing the beginning balances of assets and liabilities (Khan and Meyers, 2009). Decision makers are expected to be knowledgeable on the subject matter. The auditor’s participation is essential inorder to ensure that caution and due diligence is observed in areas where judgment is required (Hepworth, 2003)
Lack of staff motivation and financial incentive to implement the new change was also highly ranked as a challenge to implementation. Ouda (2003) concluded that the change of accounting system involves commitment of more time by the staff than in normal circumstances and due to financial constraints, staffs are not provided with the incentives that make them to bear additional work that is involved in shifting to the new accounting system.

The respondents ranked the lack of top management commitment and support and resistance to change at the bottom of the challenges faced on the implementation of accrual accounting. This is consistent with the previous research findings where Harun (2007), concluded that in the public sector, decision making is highly centralized and as the accounting system reform was imposed by the authorities it would be given the highest priority by top management and hence no resistance to implementation.

### 5.3.3 Preconditions for Successful Implementation of Accrual Based Accounting

The survey results on the respondent’s perception of the essential pre-conditions for the successful implementation of accrual accounting were as discussed in this sub-section. The respondents perceived information technology capability through upgrading or replacing existing financial information systems and consultation and co-ordination within and across departments implementing accrual accounting as the most essential preconditions for successful implementation of accrual based accounting. According to Hepworth (2003), introduction of accrual accounting is unthinkable without availability of appropriate and affordable standard software that is able to respond to the new and additional requirements of accrual based accounting. According to Ouda (2004), consultation and co-ordination among and within the public entities that will apply the accrual accounting system is crucial to the successful transition to accrual accounting mainly due to informational feedback with suggestions of required improvements.

The respondents also perceived capacity building and formulation of new and amending existing accounting policies as crucial to the successful transition to accrual accounting. McKendrick, (2007) agreed that there is a need for a considerable degree of institutional capacity building due to the variety and complexity of the new tasks to be undertaken during the implementation of accrual accounting. Transition to an accrual based accounting system requires changes in accounting policies inorder to comply with
accounting standards. Issues that are not specifically addressed by the accounting standards requires that decision makers diligently use judgment in selecting the most appropriate accounting policies to assure credibility and reliability of financial information (Khan and Meyers, 2009). Accrual accounting is a more comprehensive accounting system requiring the recording, the recognition and measurement or valuation of complex transactions and assets and liabilities hence need for review or development of accounting policies to cater for this requirement ((IFAC, 2003).

The respondents also identified top management support and commitment, personnel training and incentives that promotes staff motivation and effective and ongoing communication as essential to the successful implementation of accrual accounting. Christensen (2003) concluded that promoters of change can speed the change process and that the promoters and producers of change will more likely achieve a successful outcome if there is strong support. Ouda (2004) emphasizes on motivated and appropriately trained and qualified accounting personnel for successful implementation of accrual accounting. Diamond (2002) stressed the need for communication with all internal and external stakeholders on the implementation process to obtain acceptance and reduce resistance.

Involvement of external and internal auditor throughout the implementation process and change of management culture to focus on output instead of input were perceived as the least important of preconditions for successful implementation of accrual accounting. Woods (2002) noted that change in attitude is necessary to make new systems effective as institutional inertia presents one of the biggest threats to the successful introduction of accrual accounting. The support of external auditor is critical to any organization to change its financial accounting system to adopt an accrual-based system (Hepworth, 2003)

5.4 Conclusions
This study focuses on investigating implementation of accrual accounting in World Food Programme. The study focused on the benefits realized, challenges faced and the essential pre-conditions for the successful implementation of accrual accounting.
5.4.1 Benefits of Adopting Accrual Accounting
The survey results revealed that most of the respondents agree that improved asset management, improved consistency and comparability of financial information reported, improved liabilities management and presentation of accurate financial position of the organization were the major benefits derived from the implementation of accrual accounting. The correlation results indicated that there were significant positive correlation results between responses on the major benefits of implementing accrual accounting and the respondents’ job experience, academic qualification and professional qualification. These major benefits included improved asset management, improved consistency, and comparability of financial information, improved liabilities management and presentation of accurate financial position of the organization. The respondents had the experience, appropriate knowledge to understand accrual based accounting in the organization and hence their views could be relied on to determine the actual benefits derived from the new accounting system.

5.4.2 Challenges of Implementing Accrual Based Accounting
Despite the major benefits identified from the survey, challenges were also identified that acted as barriers to the implementation process. According to the survey results, the major challenges were identified as the lack of technological resources specifically inadequate financial information system to cope with the new reporting requirements, the high cost of implementing the accrual system and lack adequate resources. Majority respondents were qualified accountants hence the reason why lack of trained and qualified personnel to implement the system was considered one of least of the challenges. Similarly, lack of top management support and commitment and resistance to change were not considered as major challenges owing to the fact that the decision to adopt accrual based accounting was endorsed by General Assembly and was not an option but mandatory for all United Nations organizations. The survey results therefore confirm that there were numerous challenges associated with the implementation of accrual accounting.

5.4.3 Preconditions for Successful Implementation of Accrual Based Accounting
The survey results revealed that majority of the respondents agreed that the most essential pre-conditions for the successful implementation of accrual accounting were information technology capability, consultation and co-ordination within and across departments implementing accrual accounting, capacity building, formulation of new and amending
existing accounting policies and top management support and commitment. The adoption of accrual accounting is an enormous task that demands total devotion by top management and requires allocation of adequate resources both financial and non-financial.

Significant positive correlations existed between the major essential pre-conditions for the successful implementation of accrual-based accounting with the respondents’ job experience, academic qualification and professional qualification. It is important that any organization contemplating adopting accrual accounting be aware of these implications and hence put in place the right framework before embarking on a change to the accounting system.

5.5 Recommendations

5.5.1 Recommendation for Improvement

It is evident that implementation of accrual accounting has brought about numerous benefits to the organization as well as to both internal and external stakeholders. The researcher recommends that the organization consider adopting accrual based budgeting in order to harmonize both financial reporting and budgeting.

5.5.1.1 Recommendation on Benefits Derived from Adoption of Accrual Accounting.

This study has resulted into the identification on a number of benefits arising from implementation of the accrual accounting initiative. These include better asset and liabilities management, better financial performance, comparability, improved decision-making process, enhanced accountability and transparency. The study recommends that other public entities should undertake to implement accrual based accounting in order to realize the benefits.

5.5.1.2 Recommendation on Challenges of Implementing Accrual Accounting

Despite the benefits derived from accrual accounting, there substantial costs and risks associated with the implementation and maintenance of an accrual accounting system which may overcome its anticipated benefits. Public sector entities intending to adopt accrual accounting should be aware of these challenges and put mechanisms in place to ensure that the problems do not hinder the implementation process. Entities should upgrade or replace their financial information systems, build capacity, allocate adequate
resources, effectively communicate and motivate staff in readiness of the transition process.

5.5.1.3 Recommendation on Preconditions for Successful Implementation of Accrual Based Accounting

The benefits from accrual accounting information can only be realized if the system is designed to suit the unique environment. The transition to accrual accounting needs to be well planned and organized by setting the right preconditions. Failure to consider the pre-implementation factors could defeat the whole purpose of the reform process. Organizations should therefore create the right environment before implementing accrual based accounting.

5.5.2 Recommendations for Further Studies

This study has importance in itself by throwing light on implementation of accrual accounting in a public sector entity but the study also gains additional significance in forming a basis for future research. Further research should focus on developing case studies to investigate the satisfaction level of the accounting and finance staff with adoption of accrual accounting. Further research could also be carried out on United Nation agencies to examine the sustainability of a dual system of accounting where financial accounts are prepared on accrual basis while the budgets are prepared on modified cash basis with the aim of investigating the possibility of introduction of accrual based budgeting.
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APPENDIX I: INTRODUCTORY LETTER

NJUGUNA PHILIS WANJIRU

UNITED STATES INTERNATIONAL UNIVERSITY – AFRICA

P.O BOX 4803-00200

NAIROBI

Dear Respondent,

In partial fulfillment of a Masters degree in Business Administration at the United States International University, I have embarked on carrying out a research with the aim of finding out what benefits WFP derived from adopting the accrual based accounting system, the challenges encountered and what were the preconditions necessary for the successful implementation of the system.

This Study is intended to assist United Nation entities in the process of adopting or considering adopting accrual based International Public Sector Accounting Standards (IPSASs) and also assist the public sector entities transitioning from the modified cash basis to the accrual basis. The findings of the study shall also be useful to professionals, policy makers, and others concerned with policy issues in public sector management, locally and internationally.

Any information provided on the questionnaire shall be treated as confidential and your personal details shall not be reflected anywhere in this research. I take this opportunity to thank you in advance and it is my humble request that you fill and return the completed form within one week.

Yours Sincerely

PHILIS NJUGUNA
APPENDIX II: QUESTIONNAIRE

Thank you for taking time to complete the data requested on this questionnaire, your views and contributions are crucial to the successful completion of this research project.

1. General Information

Name…………………………………………………Department………………………………

2. Please tick in the parenthesis as appropriate

a) Age

( ) Under 25 years       ( ) 25-45 years
( ) 46-55 years       ( ) over 55 years

b) Academic Education – Degrees and Diplomas

( ) Graduate       ( ) Diploma
( ) Undergraduate       ( ) Certificate

c) Professional qualification in accounting and finance

( ) CPA       ( ) ACCA
( ) KATC       ( ) Any other

d) How long have you worked for the organization?

( ) Less than 5 years       ( ) 6-10 years
( ) 11-15 years       ( ) over 15 years

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PART II: Kindly indicate by ticking the correct box the degree to which you agree or disagree that the following benefits have accrued to the organization upon the adoption accrual based accounting.

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved Asset management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improved liabilities management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improved decision making through accurate and reliable information provided.</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Enhanced transparency due to greater financial information provided</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improved consistency and comparability of financial information reported</td>
<td></td>
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<td></td>
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<tr>
<td>Reduced and better management of expenditure due to proper cost allocation</td>
<td></td>
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<tr>
<td>Improved receivables management due to completeness of information</td>
<td></td>
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<tr>
<td>Improved resource allocation due to identification of full cost of activities</td>
<td></td>
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<tr>
<td>Improved financial performance through operational cost savings</td>
<td></td>
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<tr>
<td>Presentation of accurate financial position of the organization</td>
<td></td>
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<tr>
<td>Improved Accountability</td>
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<tr>
<td>Improved disclosure and measurement of financial information</td>
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<tr>
<td>Improved internal control systems</td>
<td></td>
<td></td>
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<td></td>
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</tbody>
</table>
### PART III: Kindly indicate by ticking the correct box the degree to which you agree or disagree that the following challenges were experienced on the implementation of accrual-based accounting.

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of adequate resources</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>High cost of implementation the system.</td>
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<tr>
<td>Lack of top Management commitment and support</td>
<td></td>
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<tr>
<td>Resistance to change</td>
<td></td>
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<tr>
<td>Lack of staff motivation and financial incentive to implement the new change</td>
<td></td>
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<tr>
<td>Complexity of the accrual accounting process</td>
<td></td>
<td></td>
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<tr>
<td>Lack of trained and qualified personnel to implement the system</td>
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<tr>
<td>Difficulty in establishing the opening balance sheet figures</td>
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<tr>
<td>Inadequate financial information system to handle accrual accounting system requirements</td>
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<tr>
<td>Increased time and money resource needs.</td>
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<tr>
<td>Loss of financial management control</td>
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</tbody>
</table>
PART IV: Kindly indicate by ticking the correct box the degree to which you agree or disagree that the following pre-conditions were necessary for the successful implementation accrual based accounting by the organization.

<table>
<thead>
<tr>
<th>Change of management culture to focus on output instead of input</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information technology capability through upgrading or replacing existing financial information systems</td>
<td></td>
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</tr>
<tr>
<td>Personnel training and incentives that promotes staff motivation.</td>
<td></td>
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<tr>
<td>Consultation and co-ordination within and across departments implementing accrual accounting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effective and ongoing communication to both internal and external stakeholders</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Top management support and commitment to successful transition</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Tight internal controls due to increased complexity of transactions</td>
<td></td>
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<tr>
<td>Involvement of external and internal auditor throughout the implementation process</td>
<td></td>
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<tr>
<td>Effective project management structure</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Capacity building through awareness, training and resource provision</td>
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</tr>
<tr>
<td>Formulation of new and amending existing accounting Policies to cater for the requirements of accrual accounting</td>
<td></td>
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</tbody>
</table>

PART V

Kindly provide a list of other benefits that in your opinion have accrued to the organization due to the adoption of accrual based accounting.

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

Kindly provide a list of other challenges that in your opinion may have been encountered by the organization due to the adoption of accrual based accounting.

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

Kindly provide a list of other pre-conditions in your opinion that were necessary for the successful implementation accrual based accounting by the organization.

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

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