

**EFFECTS OF CASH MANAGEMENT PRACTICES  
ON OPERATIONAL PERFORMANCE OF  
SELECTED PUBLIC HOSPITALS IN KISII COUNTY,  
KENYA**

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**DECLARATION**

This research report is my original work and it has not been presented for a degree or any award of this or any other institution.

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**TABLE OF CONTENTS**

**DECLARATION .....ii**

**ACKNOWLEDGEMENT .....ii**

**ABSTRACT ..... iii**

**LIST OF TABLES .....viii**

**LIST OF FIGURES .....viii**

**ABBREVIATIONS .....ix**

**DEFINITION OF TERMS .....xi**

**CHAPTER ONE .....xii**

**INTRODUCTION ..... 1**

1.1 Background of the Study ..... 1

1.2 Statement of the Problem ..... 8

1.3 Objectives of the Study ..... 9

1.4 Research Questions ..... 9

1.5 Justification of the Study ..... 10

1.6 Significance of the Study ..... 10

1.7 Scope of the Study ..... 10

1.8 Limitations of the Study .....	11
<b>CHAPTER TWO .....</b>	<b>12</b>
<b>LITERATURE REVIEW .....</b>	<b>12</b>
2.1 Introduction .....	12
2.2 Theoretical Concept of Cash Management .....	12
2.2.1 Monetary Theoretic Approach to Cash Management.....	12
2.2.2 Operations Research Approach to Cash Management .....	13
2.2.3 Financial Theoretic Approach to Cash Management .....	13
2.3 Cash Management Practices .....	13
2.3.1 Budget.....	14
2.3.2 Bank Accounts .....	17
2.3.3 Book Keeping.....	19
2.4 Theoretical Concept of Operational Performance .....	24
2.5 Research Gap .....	25
2.6 Conceptual Framework .....	26
<b>CHAPTER THREE .....</b>	<b>28</b>
<b>RESEARCH METHODOLOGY .....</b>	<b>28</b>
3.1 Research Design.....	28

3.2 Research Site .....	28
3.3 Target Population.....	28
3.4 Sample Size and Sampling Procedure.....	29
3.5 Data Collection Methods.....	29
3.5.1 Reliability of the Research Instruments .....	30
3.5.2 Validity of the Research Instrument .....	30
3.6 Data Analysis and Presentation .....	30
<b>CHAPTER FOUR.....</b>	<b>31</b>
<b>RESULTS AND DISCUSSION .....</b>	<b>31</b>
4.1 Response Rate.....	31
4.2 Gender of Respondents .....	31
4.3 Respondents’ Age .....	32
4.4 Respondents’ Level of Education .....	33
4.5 Category of Hospitals under Study .....	34
4.6 Duration of Service at the Hospitals .....	35
4.7 Number of Employees in Hospitals .....	36
4.8 Keeping of Accounting Records in Public Hospitals.....	37
4.9 Cash Budgets and Operational Performance of Public Hospitals.....	38

4.10 Operation of Bank Accounts and Performance of Public Hospitals .....	39
4.12 Effects of Book Keeping on Operational Performance .....	41
4.13 Effects of Cash Management Practices on Operational performance .....	44
4.14 ANOVA Results .....	1
4.15 Regression Analysis .....	2
4.16 Model Summary of Regression Analysis .....	4
<b>CHAPTER FIVE .....</b>	<b>5</b>
<b>SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS .....</b>	<b>5</b>
5.1 Summary of Findings .....	5
5.2 Conclusion .....	6
5.3 Recommendations .....	6
5.4 Suggestions for Further Research .....	7
<b>REFERENCES .....</b>	<b>8</b>
<b>APPENDICES.....</b>	<b>13</b>



## LIST OF TABLES

<b>Table 3.1:</b>	Summary of the Target Population.....	29
<b>Table 4.1:</b>	Analysis of the Number of Employees in Hospitals .....	37
<b>Table 4.2:</b>	Analysis of the Effects of Preparing Cash Budgets on Operational Performance .....	38
<b>Table 4.3:</b>	Summary of Operation of Bank Accounts in Public Hospitals.....	39
<b>Table 4.4:</b>	Analysis of the Effects of Operating Bank Account on Operational Performance .....	40
<b>Table 4.5:</b>	Effects of Book Keeping on Operational Performance .....	43
<b>Table 4.6:</b>	Analysis of Effects of Cash Management Practices on Operational Performance Indicators .....	45
<b>Table 4.7:</b>	ANOVA Table .....	2
<b>Table 4.8:</b>	Table of Coefficients .....	3
<b>Table 4.9:</b>	Model Summary .....	4

## LIST OF FIGURES

<b>Figure 2.6:</b>	Conceptual Framework.....	26
<b>Figure 4.1:</b>	Summary of Gender of Respondents.....	32
<b>Figure 4.2:</b>	Age of Respondents.....	33
<b>Figure 4.3:</b>	Respondents Level of Education.....	34
<b>Figure 4.4:</b>	The Categories of Hospitals under Study.....	35
<b>Figure 4.5:</b>	Duration of Service of the Hospital.....	36
<b>Figure 4.6:</b>	Effects of Book keeping on operational Performance.....	42

## **ABBREVIATIONS**

<b>CAPM</b>	Capital Asset Pricing Model
<b>EFT</b>	Electronic Funds Transfer
<b>M and M Model</b>	Modigliani-Miller (M and M) model
<b>NPV</b>	Net Present Value
<b>SMEs</b>	Small and Micro Enterprises

## **DEFINITION OF TERMS**

- Bank Concentration** It refers to the practice of moving cash from multiple banks into the firm's main account (Ondiek, Deya and Busaka, 2013)
- Cash Management** Refers to the series of processes used by an organization to obtain the maximum benefit from its flow of cash funds (Lienert, 2009)
- Profitability** Refers to the excess of revenue over all the expenses in any business entity (Attom, 2014)

## **ABSTRACT**

Cash management is necessary service mismatches between the timing of payments and the availability of cash may interfere with operations of a firm. Studies have noted that many hospitals have maintained large cash reserves and liquidity positions within their investment portfolios in an effort to partially accommodate unforeseen expenditure. However, inadequate cash management practices among the hospitals has led to slow rate of service delivery, accompanied with regular strikes of employees, insufficient medicines and other basic equipment for use in hospitals and employee strikes which are all linked to management of funds. The objectives of the study were to identify the effects of preparing cash budgets on operational performance of public hospitals, to determine the effects of operating bank accounts on operational performance of public hospitals and to establish the effects of Book Keeping on operational performance of public hospitals. The descriptive survey research design was adopted in the study. The study was undertaken in Kisii County. The target population was 99 respondents consisting of 34 accountants, 30 Medical Superintendents and 35 assistant administrators of all public hospitals in Kisii County. The sample frame for the study was 31 public hospitals within Kisii County. The sample size was 99 respondents which was selected using census sampling technique. Primary data were collected using a questionnaire. The data were tabulated, then analyzed using descriptive and inferential statistics with the help of Social Sciences (SPSS) version 22 software. Descriptive statistics involved the use of weighted averages and percentages while inferential statistics involved the use of ANOVA and regression analysis. The findings revealed that cash budgets assist in making cash flow projections and ensures budgetary control and controls a hospital's spending habits although and that it does not create competition of resources and politics; operating bank accounts ensured security of hospital funds besides helping keep track of hospital transactions; the hospitals keep records of all cash payment and receipts on daily basis, facilitating accountability that improves operational performance of

public funds. The ANOVA results revealed that, at 5% level of significance, cash budget, operating bank account(s) and book keeping all have a significant influence in determining the operational performance of public hospitals. The findings from regression analysis realized that cash budgeting account for 38.9% effect size in influencing operational performance, operating bank accounts account for 14.1% effect size in influencing operational performance while book keeping account for 49.3% effect size in influencing operational performance in public hospitals. The study findings are helpful to the County governments in understanding the importance of preparing cash budgets, operating bank accounts and Book Keeping to improve operational performance of public hospitals. The study will also be helpful to relevant stakeholders in the health sector and the management of these hospitals on having proper management practices in their institutions.

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background of the Study**

Cash is both a fundamental resource and the means by which the entity acquires other resources. To manage cash is to manage the entity's ability to purchase assets, service debt, pay employees, and control operations. Thus, effective cash management directly correlates with the entity's ability to realize its mission, goals, and objectives. The term cash management has been defined in different ways by different scholars. For instance, Barrett (1999) defines cash management as the series of processes used by an organization to obtain the maximum benefit from its flow of cash funds. Storkey (2003) defines cash management as having the right amount of money in the right place and time to meet the government's obligations in the most cost-effective way. The Chartered Institute of Management Accountant (CIMA, 2002) observed that, cash management is imperative in every business organization as cash is said to be the life blood of any business. No business operation is isolative of cash management (Abioro, 2013).

The success of enterprises largely depends on a number of factors including sound cash management practices (Attom, 2014). The essence of cash management is to ensure positive cash flow for smooth business operation (Abioro, 2013). Barrett (1999) documents that the underlying objective of cash management is having enough cash available as and when it is needed, and that sound cash management involves better timing of expenditure decisions, earlier collection and banking of revenue, and more accurate forecasts of cash flows. This helps minimize the cost of any borrowing that is necessary and facilitates investing surplus funds to achieve the best return overall.

The Asian Banker Research (2011) documented that the main drivers for improving efficiency in cash handling are to minimize cost and increase security and therefore adequate forecasting is the key to minimize excess cash, but is also the most challenging

task, as it is influenced by many variables. Moyer, Maguigan and Kretlow (2001) submit that effective cash management is particularly important for the following reasons: First, it assists in preparation of financial statement plan to support application for bank loans; secondly, it reduces cash shortage problem, thirdly, it helps firms to keep track of its cash resources which are used in inventories and accounts receivable, fourthly, it enables a firm to operate only a minimum of cash resources because of the high cost of, and limited access to capital.

Sound cash management involves better timing of expenditure decisions, earlier collection and banking of revenue, and more accurate forecasts of cash flows. This helps minimise the cost of any borrowing that is necessary and facilitates investing surplus funds to achieve the best return overall (Barret, 1999). The techniques of cash management and the degree of sophistication in business processes will vary from entity to entity and will be influenced by an entity size, geographical location and the nature of its operations. This can be exhibited by the fact that small and medium level enterprises with diverse branches located in different regions within a given country or in different countries normally will try to adopt the cash pooling technique in managing its cash since it takes into consideration cross currency variations thus eliminating currency risk exposure (Ondiek et al., 2013). Basically, the process of managing cash today has been significantly influenced by the growing developments in the business world over the years (Kesseven, 2006). Lienert (2009) found out that modern cash management has four major objectives, namely; to ensure that adequate cash is available to pay for expenditures when they are due, to borrow only when needed and to minimize government borrowing costs, to maximize returns on idle cash and to manage risks, by investing temporary surpluses productively, against adequate collateral.

A report by Kane (2001) on the medicare cost report and the limits of hospital accountability, lamented that financial accounting elements in hospitals are unreliable, poorly defined, and lacking in critical detail in most of the US hospitals. The study goes on to state that the Medicare Cost Report and matched, audited financial statements



reveal long-standing problems with the Medicare Cost Report 's data, including major differences in reported profits; variations in the reporting of both revenues and expenses; variations in the reporting of both revenues and expenses; an absence of relevant details, such as charity care, bad debt, operating versus non-operating income, and affiliate transactions; an inconsistent classification of changes in net assets; and a failure to provide cash flow statements. Because of these problems, MCR financial data give only a limited and often inaccurate picture of the financial position of hospitals.

In the US, Song, Smith and Wheeler (2000) investigated Cash management in health care systems. The study sought to explore how Not-For-Profit (NFP) hospitals allocate and manage financial assets, how much risk hospitals employ in their investment strategies, and the risk and return trade-off under contrasting market conditions. The study used two years of survey data from the Common fund Benchmarks Study for Health Care Institutions for fiscal years 2002 and 2003. The study analyzed NFP hospitals' investment strategies by comparing asset size, investment management characteristics, board characteristics, asset allocation, levels of risk, and annual returns. The study realized that NFP hospitals have sizeable long-term financial assets, averaging over \$558 million in 2002 and \$634 million in 2003. The study also revealed that, two thirds of these funds are invested in long-term operating funds followed by defined benefit pension funds and insurance reserves; management of these funds is primarily outsourced. It was also evident from the study that NFP hospitals allocate, on average, 50% of their operating fund assets to equities. The study went further to claim that, during the stock market downturn in 2002, each 1% investment in equities was significantly associated with a -0.18% decrease in annual returns. NFP hospitals with heavy reliance on investment income to boost total profit margins may have difficulty adjusting to periods of low performance. The study recommended that evaluation of the performance and financial condition of the hospital must account for the size and composition of financial assets.

Still in the US, Song and Reiter (2010) documented on trends in asset structure between Not-for-Profit and Investor Owned Hospitals in the US. The study aimed to describe and analyzes trends in aggregate asset structure between Not-For-Profit (NFP) and Investor Owned (IO) hospitals during the post-capital based prospective payment system (PPS) implementation period, providing the first documentation of long-term trends in hospital investment. The study found out that hospitals' aggregate asset structure differs significantly based on ownership, size, and profitability. The study also observed that both NFP and IO hospitals, financial securities have remained consistent over time, while fixed asset representation has declined in IO hospitals.

Wongthatsanekorn (2010) studied the impact of Cash-to-Cash cycle time, inventory conversion period (INV), receivable conversion period (AR), and payable deferral period (AP) of listed private hospitals in the Stock Exchange of Thailand (SET) on their corporate profitability, by using both regular and panel data analysis. The study sought data from the financial reports of the listed private hospitals in SET across 13 private hospital populations, from 2002 to 2008. The results from regular regression revealed that only the payable deferral period was negatively related to Asset Turnover under the control variables (namely, the control variables are company size, sales growth, financial debt level, and annual gross domestic product growth). The study also revealed that, Cash-to-Cash cycle time, inventory conversion period, receivable conversion period had no relationship with Assets Turnover at significance level 0.10. The results from panel data regression show that both receivable conversion period and deferral period are negatively related with Asset Turnover at significance level 0.10. The results also suggested that, the listed firms in SET can increase corporate profitability by decreasing payable deferral period and receivable conversion period.

A study by Wongthatsanekorn (2010) on the Cash-to-Cash Cycle management on profitability of private hospital in Thailand by regular and panel data regression analyses, found out that, drug distributors face the problem of delay in payment collection from their hospital customers and that, consequently, they lose the flexibility

of quick decision-making for the next appropriate replenishment order. This was due to the fact that, the hospital and the drug distributor has a conflict over deferral payment period which is used to calculate cash-to-cash cycle time. The hospitals prefer long deferral payment period while the drug distributor wants to shorten deferral

payment period. Based on the studied company's experiences, it was also noted that, each of the customer hospitals has different policies of purchasing plans and payment periods. The findings of the study revealed that, payable deferral period is negatively related to Asset Turnover under the control Variables (company size, sales growth, financial debt level, and annual gross domestic product growth) among the listed private hospitals in the Stock Exchange of Thailand.

Aidoo-Buameh (2014) did a study on the effect of NHIA debt on accounts payables management in public hospitals. The main objectives of the study was to determine the effects of NHIS's share of credit revenue to public hospitals, accounts receivable period, accounts receivable balances, share of credit revenue to public hospitals has no effect on total accounts payable Periods of public hospitals, accounts receivable balances have no effect on total accounts payable periods of public hospitals and accounts receivable period of NHIS debts on total accounts payable periods of public hospitals. The findings indicated that only Accounts Receivable Period of NHIS related debt has no statistical significance to Accounts Payable Balance of the public hospitals. The study concludes that, Public Hospitals' management have been ineffective at managing the non-NHIS component of their debt structure in meeting its payable obligations to suppliers.

Miller and Orr (1966) undertook a current look at the key performance measures considered critical by health care leaders. The study surveyed health care executives to determine the performance indicators considered critical for organizational assessment and improvement. A total of 27 health care organizations responded to our survey, representing a response rate of approximately 5 percent. The findings of the study suggest financial measures such as operating profit margin, days cash on hand, charity

care, net profit margin, bad debt expense, and days in accounts receivable continue to be critical for health care decision makers. These measures are complemented by non-financial indicators such as physician and employee satisfaction, hospital-acquired infection rates, surgical site infection rates, inpatient mortality, infection control outcomes, and medication error rates.

Mungai (2013) did a research on the relationship between working capital management and financial performance of private hospitals in Kenya. The objective of this study was to examine the relationship between working capital management and financial performance of private hospitals in Kenya. The study established a positive relationship with working capital management. This implies that profitability increases with increase in inventory and average accounts payable while decreasing with increasing average accounts payable. The study concluded that management must continue to manage their working capital in a more efficient way as this will always affect profitability if not managed efficiently. Besides, constant efforts should be made to reduce on the amount of inventories and that they must not only increase their debtors' collection efforts while negotiating for higher credit periods with their creditors but also create value for their shareholders by reducing the number of days for accounts receivables.

Kamau (2014) investigated the effect of internal factors on the profitability of private hospitals in Kenya. This was a case study of the Karen Hospital Limited. The main objectives of the study were to examine the effect of firm size on the profitability of private hospitals, to establish the effects of leverage on the profitability of private hospitals, to find out how the volume of capital affects profitability of private hospitals and to assess the effect of tangibility of assets on the profitability of private hospitals in Kenya. The study established a positive relationship between profitability of private hospitals and firm size, volume of capital and tangibility of assets with leverage showing a negative relationship. The study concluded that firm size, leverage, volume of capital and tangibility of assets affect profitability of private hospitals in Kenya. The researcher recommends that private hospitals should expand in a controlled way with the aim of

achieving an optimum size, avoid situations where they are highly leveraged, increasing the number of shareholders, and develop sound techniques of managing their assets. The researcher recommended a study on the external factors that may affect the performance of hospitals in Kenya.

Ayiekoet al. (2012) were interested in the Variations in Mortality in Children Admitted with Pneumonia to Kenyan Hospitals. The study aimed to analyze case fatality rates of children admitted to nine Kenyan hospitals with pneumonia during the era of routine infant immunization with Hib conjugate vaccine to determine if significant variations exist between hospitals. By obtaining data from a 9.25-year period (1999-March 2008) in one of the participating hospitals and using hospital case fatality rates for inpatient pneumonia during 2007 to 2008 modeled using a fixed effect binomial regression model with a logit link, the results were that, overall, 5.9% children admitted to all 9 hospitals with pneumonia from March 2007 to March 2008 died in hospital. After adjusting for child's sex, comorbidity, and hospital effect, mortality was significantly associated with child's age and pneumonia severity. There was also evidence of significant variations in mortality between hospitals. The study concluded that there are important variations in hospital-pneumonia case fatality in Kenya and these variations are not attributed to temporal changes, and that such variations in mortality are not addressed by existing epidemiological models and need to be considered in allocating resources to improve child health.

From the above literature, it is evident that, although few studies have been done in this area, there isn't any (known to the researcher) that has been done to address the influence of cash management practices on the operational performance of public hospitals. The only studies that have been done in Kenya have addressed different issues on hospitals. For instance, Kane (2001) observed that most of the financial accounting elements in hospitals are unreliable, poorly defined, and lacking in critical detail. This prompts the undertaking of this research so as to ascertain the extent to which the cash management practices are undertaken in Kisii County hospitals. Mungai (2013)

concentrated on the relationship between working capital management and financial performance of private hospitals in Kenya. This study only focused on the private hospitals, yet these hospitals are quite different in terms of management compared to public hospitals for which this study is pegged.

Kamau (2014) was interested in the effect of internal factors on the profitability of private hospitals in Kenya. The study had nothing to do with cash management practices besides the fact that the study was on private hospital; while Ayieko, Okiro, Edwards, Nyamai and English (2012) looked at the variations in mortality in children admitted with pneumonia to Kenyan Hospitals. This study too had nothing to do with the cash management practices. No study has tried to address the influence of cash management practices on the operational performance of public hospitals. It is for this reason that this study is done so as to bridge the gap.

## **1.2 Statement of the Problem**

Cash management is necessary because there are mismatches between the timing of payments and the availability of cash. Even if the annual budget is balanced, with realistic revenue and expenditure estimates, in-year budget execution will not be smooth, since both the timing and seasonality of cash inflows and of expenditures can result in conditions of temporary cash surpluses or temporary cash shortfalls (Lienert, 2013). However, studies have noted that cash shortage is a chronic challenge to most firms, and yet cash management is very crucial to the survival and growth of micro and small-scale enterprises (Attom, 2014). It has also been observed that many hospitals have maintained large cash reserves and liquidity positions within their investment portfolios in an effort to partially accommodate unforeseen expenditure (SEI, 2012). Inadequate cash management practices among the hospitals has led to slow rate of service delivery, accompanied with regular strikes of employees, insufficient medicines and other basic equipment for use in hospitals and employee strikes are all linked to management of funds within public hospitals. Lobel (2013) found out that improper accounts preparation and inadequate cash management procedure were some of the major

challenges facing organizations leading to close up of the enterprises. It is for this reason that the study seeks to determine the effects of cash management practices on operational performance of public hospitals.

### **1.3 Objectives of the Study**

The main objective of the study was to determine the effects of cash management practices on operational performance of selected public hospitals in Kisii County. The specific objectives of the study were;

- i. To identify the effects of preparing cash budgets on operational performance of public hospitals in Kisii County
- ii. To determine the effects of operating bank accounts on operational performance of public hospitals in Kisii County
- iii. To establish the effects of Book Keeping on operational performance of public hospitals in Kisii County

### **1.4 Research Questions**

To achieve meeting the above objectives, the study sought to answer the following research questions:

- i. What are the effects of preparing cash budgets on operational performance of public hospitals in Kisii County?
- ii. What are the effects of operating bank accounts on operational performance of public hospitals in Kisii County?
- iii. What are the effects of book keeping on operational performance of public hospitals in Kisii County?

### **1.5 Justification of the Study**

Public hospitals play a great role in providing healthcare to majority of the citizens. There is need therefore to have proper management of its cash so as to ensure there is adequate and continuous availability of the basic equipment needed for its daily functioning. This will create a sense of trust among the patients hence visit these hospitals when need be. Therefore the study seeks to know whether cash management practices have any influence on financial performance of public hospitals in Kisii County.

### **1.6 Significance of the Study**

The study may enable the government and County government to know the effects of preparing cash budgets, operating bank accounts and Book Keeping on operational performance of public hospitals. The study will also help the management of public hospitals to know not only the effect which cash management practices have on financial performance but also the various cash management practices that are of importance in tracking financial performance. The study will also be helpful to relevant stakeholders in the health sector and the management of these hospitals on having proper management practices in their institutions. Besides, the research will also help other researchers by forming a basis for their research.

### **1.7 Scope of the Study**

The study focused on determining the effects of cash management practices on operational performance of public hospitals in Kisii County where specifically dealt with forms of cash management practices currently in use, factors influencing effective cash management practices key indicators and their impact on operational performance of hospitals and Identifying challenges that hospitals in Kisii County are facing in implementing effective cash management practices. The study only gathered data from public hospital within Kisii County. Kisii County is one of the two Counties in



GusiiCommunity. The County has one public referral hospital, 7 Sub County hospitals and 24 Dispensaries.

### **1.8 Limitations of the Study**

The findings of the study would only be generalized to effects of cash management practices on financial performance of public hospitals and therefore may not apply to private hospitals nor public hospitals in other Counties. Besides, the study confined itself to studying only three of the several variables that are known to affect cash management of any organization. This therefore means that there could be other variables, though not within the scope of this study, which could also have some variables that could be having significant effects operational performance of the hospital. Further still, the period of carrying out this study is limited to three months only.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter presents the literature related to this study. Specifically, the chapter provides the theories of cash management, the various cash management practices, empirical review, the conceptual framework and the operational framework of the study.

#### **2.2 Theoretical Concept of Cash Management**

Kytonen (2004) cited in identified three theoretical approaches to cash management, namely; Monetary theoretic approach to cash management, Operations research approach to cash management and Financial approach to cash management.

##### **2.2.1 Monetary Theoretic Approach to Cash Management**

This theory argues that monetary economists are interested in the cash management of firm with an aim of describing the mechanism of the demand for money by firms, because it differs from the behaviour of other economic agents. The theory views cash management as financial transactions, which means the purchasing or selling of financial securities or borrowing or repaying of capital. The study argues that in monetary theory, the demand for money is one of the most intensively investigated areas, and that the demand for money investigates decisions made in the cash management process. For this reason therefore, cash balances could be treated in the same way as inventories of goods. A stock of cash is its holder's inventory, and like an inventory of a commodity, cash is held because it can be given up at the appropriate moment, serving then as its processor's part of the bargain in an exchange. The firm is presumed to hold the amount of money, which minimizes the interest cost by holding

money rather than investing it in short-term investments and the transaction costs associated with transferring between securities and cash.

### **2.2.2 Operations Research Approach to Cash Management**

Numerous operational models have been developed to optimize the split between cash and marketable securities based on the firm's needs for cash, the predictability of these needs, the interest rate on marketable securities, and the cost of a transfer to cash and vice versa (Kytonen, 2002 as cited in Abioro, 2013). The study further claims that the basic transaction models most commonly accepted in the financial literature are the deterministic Baumol-Tobin (1952) and the stochastic Miller-Orr inventory models (1966).

### **2.2.3 Financial Theoretic Approach to Cash Management**

Kytonen (2002) opined that in financial theory, researchers are interested in how cash and other liquid assets affect firm value and the optimal capital structure of a firm. This theory links cash management to financial theory by considering its importance in an imperfect market. According to this study, this can be done by adding it to the financial theoretic models, such as the Capital Asset Pricing Model (CAPM) or the Modigliani-Miller (MandM) model. The study further observes that the effects of the inclusion of cash balances in these theoretical models show the importance of liquid assets for the value of a firm (through the systematic risk component) and for the optimal capital structure (through the liquidity slack concept).

## **2.3 Cash Management Practices**

Cash management is the process of ensuring that businesses have good cash balances to ensure that they continue to stay in business. Thus prudent cash management ensures that a small business would be able to honour its debt obligations as and when they fall due and also to facilitate the responsibility of the firm to pay for its upcoming expenses

(Attom, 2014). Cash management forms an integral part of working capital management. Hence, it is considered as part of the scope of a good working capital management in modern businesses (Brealey, Myers & Allen, 2008).

Once cash budget has been approved, and appropriate net cash flow established, Abioro (2013) recommends that the financial manager should ensure that there does not exist a significant deviation between projected cash flows and actual cash flows and that to achieve this, there will have to be proper control of cash collections and disbursements. Pandey (2010) supports this claim by indicating that, cash management in the modern corporation involves two simple rules; first, speed up cash collection (Cash Inflow) which minimizes collection float, and slow down cash disbursement (Cash Outflow) which maximizes disbursement float. Attom (2014) identified several cash management practices. These include:

### **2.3.1 Budget**

Traditionally, budgeting is considered to be one of the most important management tools to steer the organization, evaluate its performance and motivate its people (Maritim, 2013). For other organizations, budgeting process has been implemented to a very advanced level including planning, coordinating, control, and performance evaluation (Yang, 2010 cited in Maritim, 2013).

Cash budget refers to a table showing cash flows (receipts, disbursements, and cash balances) for a firm over a specified period of time. It identifies all the cash receipts components and a schedule that tracks cash payments to suppliers with respect to purchases. It is a measure that establishes the cash position (deficit or surplus) of a firm given the cash inflows and outflows over the period under consideration (Attom, 2014). A study by Uwonda, Okello and Okello (2013) opined that in order for SMEs to reach their potentials, they must prepare cash budgets besides designing business plan,

preparing cash flow projections, ensuring budgetary control, internal control system and controlling their spending habits; and improving on their credit policies.

Cash budget is the most significant device to plan for and control the cash receipts and payments Marfo-Yiadom (2009), and it aids in the effective operation of any business (Barrel, 1999) a study by Nguyen (2001) noted that most firms carried out their cash budgeting on a weekly basis mainly to plan for shortages and surpluses of cash and that they would determine target cash balances based on needs for transaction balances, and put its idle cash in cash management accounts or certificates of deposit.

However, budgets control can also create problems. First, Budgets can demotivate employees because of lack of participation. This usually happens when the employees feel that budgets are arbitrarily imposed top down, hence rendering them unable to understand the reason for budgeted expenditures, and will not be committed to them. Budgets can cause perceptions of unfairness. Secondly, budgets can create competition for resources and politics in the sense that, a rigid budget structure reduces initiative and innovation at lower levels, making it impossible to obtain money for new ideas. These dysfunctional aspects of budgets systems may interfere with the attainment of the organization`s goals (Kim, 2002).

Borgia, Burgess and Shank (2003) indicated that each business spends cash in order to receive cash. It's just that the wait in between can be long and costly. Mungai (2014) observed that promptly receiving the cash owed by debtors could actually be the determining factor of whether or not the business closes down. The study further stated that, although many customers do not have the cash to pay the full purchase price and choose to purchase the item on a lay-by system and thereby attracts more customers, especially during the festive months when consumer sales generally are on the increase (Sapong, 2010), this can be detrimental to the normal functioning of any business enterprise. However, this too has little effect in hospitals since hospitals do not stock goods.

A study by Qi (2010) realized that more formal budgeting planning promotes higher growth of sales revenues in SMEs, and that clear and difficult budget goal improve budgetary performance of SMEs. However, the study reiterated that, a higher level of budgetary sophistication results in a lower profit growth of SMEs while more formal budgetary control leads to a higher growth of profit in SMEs and that, when adopted by both, medium-sized firms achieve higher profit growth than small firms. A research by Ugwuanyi and Ebe (2012) found out that there existed in appropriate budgetary implementation are hardly kept by government industries in Enugu State, Nigeria.

In Kenya, Maritim's (2013) revealed that the budgeting practices that are common among the firms in Kenya are budget planning, budget participation and budgetary sophistication among commercial and manufacturing parastatals in Kenya, and that, however, employee participation in the budgeting process resulted in greater success in actualization of the plan set out in a particular period followed by budget planning. It was also disclosed in the study that, more formal budgeting planning promotes higher growth of sales revenues in the parastatals, more formal budgetary control leads to a higher growth of profit in parastatals and greater budgetary participation leads to better managerial performance.

Uwalomwa and Egbide (2011) claims that cash management entails taking the needed precautionary measures to ensure that adequate cash levels are maintained in the business so that the operational requirements could be met. This claim is seconded by Aliet (2012) who indicated that, cash management is the management of cash to maximise the cash held in the business that is not invested in buying inventory or fixed assets. In other words, it is the management of cash to avoid the risk of the business becoming insolvent.

Adongo (2012) was interested in establishing the relationship between budgetary control and financial performance of state corporations in Kenya. The study aimed to determine the salient features of budgetary controls in state corporations, to establish the human

factors within budgetary controls, establish the process of budgetary control in public organizations and determine the challenges affecting budgetary control. The study revealed that a positive relationship existed between budgetary control and financial performance of state corporations and that existing budgetary features reflect ability to predict financial milestones of organizations. In view of this, the study recommended sensitization among management and employees of state corporation on the importance of budgetary controls in enhancing financial performance, avoidance of political interference in the budgetary process and use of budgets not only as tools for management and indicators of management, but also as practical tools within which organizations should use to enhance their financial goals.

Abioro (2013) indicated that mere availability of cash (liquidity) without proper management does not necessarily translate into favorable performance for manufacturing companies. Hence, need for effective cash management for better performance. Gachaaga (2014) on the effects of management accounting practices on financial performance, found out that budgeting practices (budgeting for long-term (strategic) plans, zero-based budgeting, budgeting for controlling costs, flexible budgeting, budgeting with “what if analysis”, budgeting for planning and activity- based budgeting) were highly used by the Manufacturing Companies in Kenya.

### **2.3.2 Bank Accounts**

Cash management practices can be enhanced by operating a bank account. A business’s bank account helps it to keep track of business transactions and also ensures the security of its funds (Attom, 2014). The study further points out that, having a very good banking and financial culture by MSE operators will directly impact their cash management and control systems. This, according to the study, is because regular and periodic bank deposits made by MSEs help improve their financial controls by reducing the risk of embezzlement by their employees. A study by Abioro (2013) realized that the change in

the corporate banking relationship from buyer's to a seller's market had brought significantly influenced cash management in the business world over the years.

A study by Abioro (2013) advocated for bank concentration which refers to the practice of moving cash from multiple banks into the firm's main account. Local banks automatically transfer funds, either by wire or by a depository transfer check to a central concentration bank. Bank fees can add up over time, particularly for municipalities with multiple bank accounts that charge a monthly fee (DiNapoli, 2014). Bragg (2010) supported this practice of bank concentration by stating that concentration is an excellent solution to solving the problem of inefficient management of treasury where with subsidiaries and branches maintain individual banks accounts resulting into serious tracking and reconciliation problem by the head office. The study further explained that with cash concentration, cash in multiple accounts is pooled either through physically sweeping or notional pooling. In support of this argument, Allman-Ward et al. (2003) also cited an advantage of bank concentration by stating that deposit reporting services, company-initiated concentration, standing instructions and maintaining zero balance accounts are options available to a company to move funds into the concentration account. It also reduces the amount of total cash balances that need to be held since it allows for some offsetting of local disturbances to transactions balances. However, Allman-Ward et al. (2003) quickly warned that to have an effective concentration system, the following cost element must be considered; the cost of the transfer mechanism, the value of the funds in the bank and the opportunity cost of local accounts.

A study by Ademola et al. (2012) discovered that majority of small scale enterprises in Kogi State did not operate bank accounts. The study also noted that, of the 7% of the respondents that had opened a bank account, they did so with the intention that one day, they could benefit from the bank, in form of bank loan – possibly because of lack of finance or the required fund. However, it was discovered that the banks rejected the loan applications for majority of these small scale entrepreneurs because most of the business



organizations did not keep their records. These include sales records, purchase record, inventory records, accounts receivable records among others.

From the above literature, it is evident that few studies have been done in this area. Ademola et al.'s (2012) study concentrated on small scale enterprises but these are not related in any way to hospitals as far as their functionality and management is concerned. There is no research in particular (known to the researcher) that has been done to address the effect of keeping book account as cash management practice on the operational performance of public hospital, hence the reason this study is undertaken.

### **2.3.3 Book Keeping**

Book keeping is the analysis, classification and recording of the business transactions in the books of accounts (Saleemi, 2008). Okwena, Onkioma and Onsongo (2011) define bookkeeping as the recording of financial transactions which include sales, purchases, income, and payments by an individual or organization. Ademola, Samuel and Ifedolapo (2012) define book keeping as the recording of business transactions in systematic manner so that the financial position of an organization can be ascertained at any point in time. Record keeping involves identification, classification, storage and protection, receipt and transmission, retention and disposal of records for preparation of financial statements. (Ademola et al., 2012). The transactions recorded during book keeping include sales, purchases, income, and payments by an individual or organization. Book keeping is usually performed by a bookkeeper (Okwena et al., 2010). Bookkeeping and accounting share two basic goals: to keep track of income and expenses, which improves chances of making a profit, and to collect the financial information necessary for filing various tax returns. There is no requirement that records be kept in any particular way as long as your records accurately reflect the business's income and expenses (Okwena et al., 2010).

Mungai (2014) identified the following as some of the cash management practices: Inventory management and control, handling Debtors, and Cash budget. Inventory management: It's easy to turn cash into inventory but it's not easy to turn inventory into cash. When inventory is sold and floor space is freed up, the business profitability really changes. The slow moving inventory should not increase to more than 5% of all inventory stocked in the business (Barrera, 2013). To address the slow moving inventory, the study suggested that; put emphasis on those items to attract sales, make sure that the First-in-First-out system for stocking inventory on the shelf is practiced by setting the newer stock at the back of the shelf to allow for the older stock to get sold first, offer discounts; and try bundling that slow moving item with something which is of demand to consumers. However, these measures cannot be applied in the hospital setup since hospitals do not stock goods for sale. Besides, the people who attend hospitals do not attend because it's their wish rather because the ailments they are suffering from leaves them with no option but to visit the hospitals. It is very difficult to find a hospital client asking for more services other than those for which s/he attended the hospital.

Ademola et al. (2012) state that, in record keeping, policies, systems, procedures, operations and personnel are required to administer the records. According to the study, accounting records include entries from day to day transactions of business for instance transactions in respect to receipts and expenditure. Records may include a list of organizational assets and liabilities. Laughlin and Gray, (1999) cited in Abdul-Rahamon and Adejare(2014) identified the following as the most important reasons to set up a good record management: to control the creation and growth of records to reduce operating costs, improve efficiency and productivity, to assimilate new records management technologies and to ensure regulatory compliance.

Proper record keeping plays a vital role to a business. For instance, through properly kept books a person can at any time ascertain: what property he possesses, what amounts he owes and to whom, what profit he has made or what loss he has sustained for any given period and the manner in which the profit and loss has risen, and the amount of his

capital or deficiency. The study goes on to stress that, if no records are kept, it will be difficult to find accurate net profit, and this may lead to tax authorities overestimating the profits and thus a trader will suffer. Thirdly, in absence of proper business records, the trader will find it difficult to submit the true position to the court in case he becomes insolvent. Fourthly, keeping of proper records helps the trader in framing future business plans and policies. Fifthly, it becomes difficult to ascertain and fix the price of business to be sold or disposed off. Lastly, in spite of the best memory it is beyond the capacity of a trader to remember all the business dealings with back references (Williams et al, 2008).

Findings of Abdul-Rahamon and Adejare (2014) study on the impact of Accounting Records Keeping on the Performance of the Small Scale Enterprises, showed that there is a strong positive relationship between accounting record keeping and performance of small scale enterprises in Nigeria. This implies that accounting record keeping affects performance of small scale business. Accounting record keeping is essential for decision making. Business adjustment and records also help to improve business efficiency and productivity for effective business performance. It was also found that Accounting records keeping increase the chances of the business operating and achieving success, and provide information to enable the control of cash in the business.

Attom (2014) researched on the cash management practices by micro and small-scale Enterprises at Kasoa in the central region of Ghana. The study aimed to ascertain the cash management practices among micro and small-scale enterprises in the Kasoa and its environs. Specifically, the study explores cash management practices in micro and small-scale enterprises; identifies the cash controls used by small business operators and suggests strategies to ensure sound cash management practices by micro and small-scale enterprises. Through a survey on cash of 305 micro and small-scale enterprises within Kasoa in the Efutu-Senya East Municipality in the Central region of Ghana, it was revealed that most of the micro and small-scale enterprises do not put in place cash management procedures in place; even where such cash control and management

procedures do exist, they are poorly implemented due to laxity and complacency within such firms. It was also noted that only 36.52 percent of the micro and small-scale enterprises kept track of their cash receipts; and that majority of micro and small-scale enterprises (77.78 percent) of SMEs did not have any cash control procedures in place. It was evident that a few SME operators (22percent) who had in place some form of cash control procedures adhered to them. In view of these, the study recommended that the MSEs should take advantage of the existing opportunities offered by financial institutions to operate separate bank accounts for their businesses in order to enhance their chances of obtaining loans or other assistance from financial institutions; there should be will power on the part of MSE owners to embrace adherence to basic cash control procedures such as daily cash counts and banking; and that financial institutions and the Business Advisory centres under the National Board for Small Scale Industries (NBSSI) should institute collaborative strategies and procedures that will assist the operators of MSEs to improve their cash management practices. These strategies could include periodic joint training and seminars for owners of Medium Scale Enterprises (MSEs) on record keeping and the supply of portable money boxes to MSEs.

Abdul-Rahamon and Adejare (2014) realized that most small scale firm owners prefer to recruit unskilled personnel especially clerical and accounting staff and this made the small scale firms to stagnate; with some firms even winding up. This, according to the study, was because unskilled accounting staff could not keep reliable accounting records that would stand the test of time statutory besides being unable to determine the profit or loss of the firm by preparing profit and loss account. Peacock (1985) cited in Okwena et al. (2010) on an investigation of the effects and causes of 1,000 proprietary company failures in South Australia during ten years, found that 4.6 percent of failures had inadequate or no accounting records. The study concluded that there was a minimal effect of accounting records of the success or failure of businesses of the proprietary companies and recommended for further research on causes of business failures.

A study by Ademola et al. (2012) on roles of record keeping in the survival and growth of Small scale enterprises, realized that majority of the small scale enterprises do not keep a record of their activities. Instead, many of them do not keep the records because they do not know how to keep the records, or they kept the records in their heads. Worse still, the study observed that some respondents viewed record keeping as a time consuming activity. Many of them are just running the enterprises not bothering to know whether it is growing. Many small scale entrepreneurs were noted to “believe” the business is growing because, there’s no evidence of decline. However, the study reiterated that timely and accurate records must be kept by business organizations so that they can achieve the objectives for which they were set up. Whatever record is kept in the head is only for a time being and it is misleading as it could be forgotten even within the shortest period of time. Abdul-Rahamon and Adejare (2014) found a strong positive relationship between accounting records keeping and performance of small scale enterprises and hence conclude that accounting records keeping is essential for decision making which invariably affects performance of small scale enterprises.

The Bank of America (2009) stated that in order to collect receivables more quickly, more efficiently and more predictably requires healthcare organizations to understand the day-to-day activity and trends associated with major streams of receipts most of the hospitals did not have a systematic way of managing its short-term cash. The study cites Gaston Memorial which, like many healthcare organizations, undermined effective cash management by having multiple cash accounts with several financial institutions. As a result, the hospital could not get a handle on banking fees, nor could it take advantage of tools for analyzing inflows and outflows and identifying ways to improve cash management. The study warned that, whether a healthcare organization anticipates having a budget surplus or a deficit, it needs to have cash to meet its obligations, accomplish its objectives, and respond to unexpected challenges. To justify this claim, the study noted that revenues are down, expenditures are on the rise, and credit is tight, healthcare organizations are trying to get cash in sooner, hold onto cash longer, and forecast future cash needs with confidence. For this reason therefore, healthcare

organizations consequently are examining strategies, tools and best practices that can make their cash/liquidity management more effective.

Okwena et al. (2010) studied on the effect of proper book keeping practices on the financial performance perspectives from small and medium scale business enterprises in Kisii Municipality. The general objective of this study was to assess the effect of proper bookkeeping practices on financial performance of SMEs in Kisii Municipality to ascertain the cause of such failures. By employing a cross-sectional survey research design on a sample of 97 owner-managers/managers of the sampled SMEs, the study found out that the greatest challenge facing SMEs in record keeping was the little knowledge in book keeping and loss of some business records which amount to 86.6%. The research also discovered that 65% of the SMEs showed inadequate book keeping practices. Further, the study found that 64% of the financial performance of SMEs was deteriorating and failing. It was also established that majority of small and medium scale enterprises use single entry book keeping system followed by those that use both single and double entry book keeping system. The research also identified the book keeping methods used by the small and medium scale enterprises as: the manual book keeping, computerized book keeping, and online book keeping. The study discovered that the financial performance has a very strong positive relationship with effectiveness in book keeping.

#### **2.4 Theoretical Concept of Operational Performance**

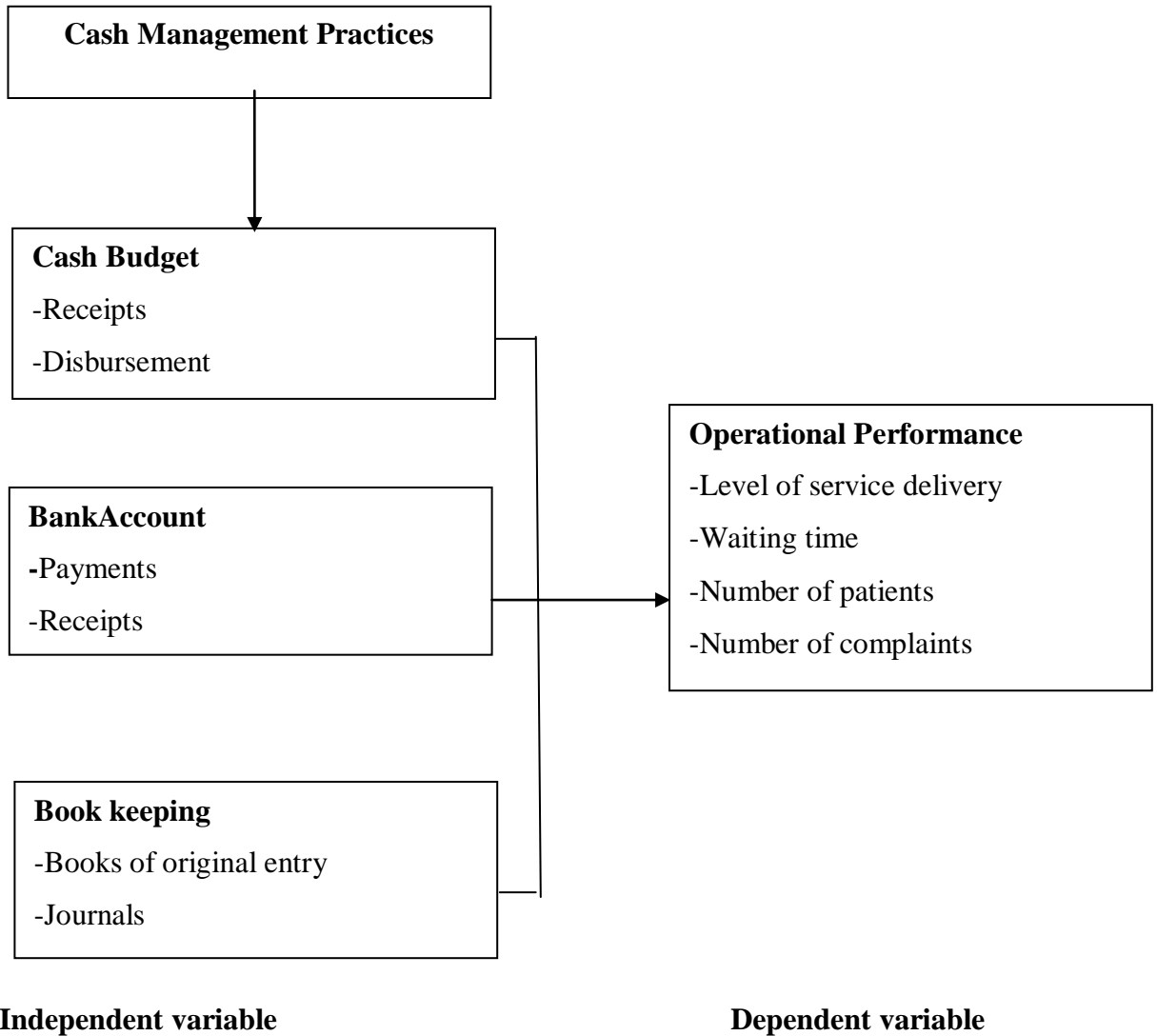
Integrated health services encompass the management and delivery of quality and safe health services so that people receive a continuum of health promotion, disease prevention, diagnosis, treatment, disease management, rehabilitation and palliative care services through different levels and sites of care within the health systems, and according to their needs throughout the life course (WH), 2015).

Strengthening service delivery is a key strategy to achieve the Millennium Development Goals. This includes the delivery of interventions to reduce child mortality, maternal mortality, and the burden to HIV/AIDS, tuberculosis and malaria (WHO, 2008). The report further records the following as the service delivery indicators focusing on low and lower middle income countries. These are; the number and distribution of health facilities in an area, the number and distribution of in-patient beds, adequate provision of basic amenities like regular water supply from safe source on-site, sanitary facilities, waiting area protected from sun and rain, communication equipment and electricity, regular and adequate provision of basic equipment for instance adult weighing scale, child weighing scale, thermometer, stethoscope, BP cuff, refrigerator, needles and syringes); infection control (includes functioning sterilization equipment, written guidelines or protocols, sharps container or box, soap, disinfecting solution, gloves, and water (in service delivery area); Human resources and tracer drugs and diagnostics.

## **2.5 Research Gap**

Although some studies have been done in this area, there is none that has addressed cash management practices in public hospitals. The only documented research in this field are Ayieko et al. (2012) which looked at the variations in mortality in children admitted with pneumonia to Kenyan hospitals, Kamau (2014) which focused on the effect of internal factors on the profitability of private hospitals in Kenya and Mungai (2013) who did a research on the relationship between working capital management and financial performance of private hospitals in Kenya. It is for this reason that the researcher receives backing to undertake the research.

## 2.6 Conceptual Framework



**Figure 2.1: Conceptual Framework Showing the Effects of Cash Management Practices on Operational Performance**

Figure 2.1 shows the effects of cash management practices on operational performance of public hospitals. The independent variable of the study is cash management practices which encompass preparation of preparing cash budgets, operating bank accounts and book keeping. The dependent variable of the study is operational performance. It is perceived that when a firm or institution has followed proper cash management practices



it will be able to not only track the flow of its cash and but also make efficient use of its cash and this is likely to improve its operational performance.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

This chapter addresses the research design, target population, sampling frame, sampling technique and sample size, data collection procedure, data collection instruments, pilot testing, validity and reliability, and data analysis involved in the whole process of this research.

#### **3.1 Research Design**

The survey research design was adopted in the study. The descriptive survey research design enables the researcher to describe, explain and portray characteristics of an event or population as it exists. Several related studies found survey design to be the most applicable research design (Mungai, 2014; Abioro, 2013; Ademola et al., 2013).

#### **3.2 Research Site**

The study was undertaken in Kisii County, Nyanza Region in Kenya. Kisii County is in the Western part of Kenya and it is one of the two Counties in Gusii Community. The County is located at 0°41'S 34°46'E and has a population density of 2,862 people per square Kilometer. The region is referent for Malaria disease during the rainy seasons, among other diseases.

#### **3.3 Target Population**

Kothari (2003) defines target population as the total enumeration of the subjects under investigation. Kisii County has 30 public hospitals. The study targeted 99 respondents consisting of all the accountants, Medical Superintendents and assistant administrators in

Kisii County Level 4 and level 6 hospitals. Table 3.1 gives the summary of the accountants, Medical Superintendents and assistant administrators who are currently stationed in the target hospitals.

**Table 3.1: Summary of the Target Population**

<b>Category of Hospital</b>	<b>Category of Respondent</b>	<b>Number of Respondents</b>
Level 6	Superintendent	1
	Accountants	4
	Ass. Administrator	4
Level 4	Superintendent	30
	Accountants	30
	Ass. Administrator	30
<b>TOTAL</b>		<b>99</b>

### **3.4 Sample Size and Sampling Procedure**

The study sample size was 99 respondents as in the target population. The study gathered relevant information from all the 30 public hospitals within Kisii County. This included all the level 4 and level 6 hospitals within the County. There were 30 accountants in all the Level 4 hospitals and 3 accountants in Kisii Level 6 hospital. This means that the study adopted census sampling technique to select the 99 respondents. Kothari (2003), defines census as a complete enumeration of the individuals or objects under study.

### **3.5 Data Collection Methods**

Primary data were collected using a questionnaire. The researcher also requested for secondary data from the respondents for scrutiny. Since the number of respondents involved in the study was small, the researcher delivered the questionnaires personally to

the respondents. This was done through hand delivery. The respondents were given the questionnaire and required to fill them at their convenience and then collected after five days. A follow-up visits were made after three days to try and reach the respondents who were not there at the time of delivery of the questionnaires.

### **3.5.1 Reliability of the Research Instruments**

In order to ascertain the reliability of the questionnaires, the researcher conducted a pilot study on the questionnaires by administering it to some accountants in Kisii County from whom data were not collected during the actual time of undertaking the research.

### **3.5.2 Validity of the Research Instrument**

Validity refers to the ability of a research instrument to measure what it purports to measure (Mugenda & Mugenda, 2003). To ensure validity, the researcher conducted a pilot test on the questionnaire by administering it to respondents who were part of those to be involved in the research process. The researcher also ensured validity by using the test retest method on the piloted questionnaire.

## **3.6 Data Analysis and Presentation**

The data were tabulated, then analyzed using descriptive and inferential statistics with the help of Social Sciences (SPSS) version 22 software. Descriptive statistics involved the use of weighted averages and percentages. Inferential statistics were used to establish the causal relationship between the dependent and independent variables. This was achieved through the use of ANOVA. The results were presented in charts, tables and graphs.

## **CHAPTER FOUR**

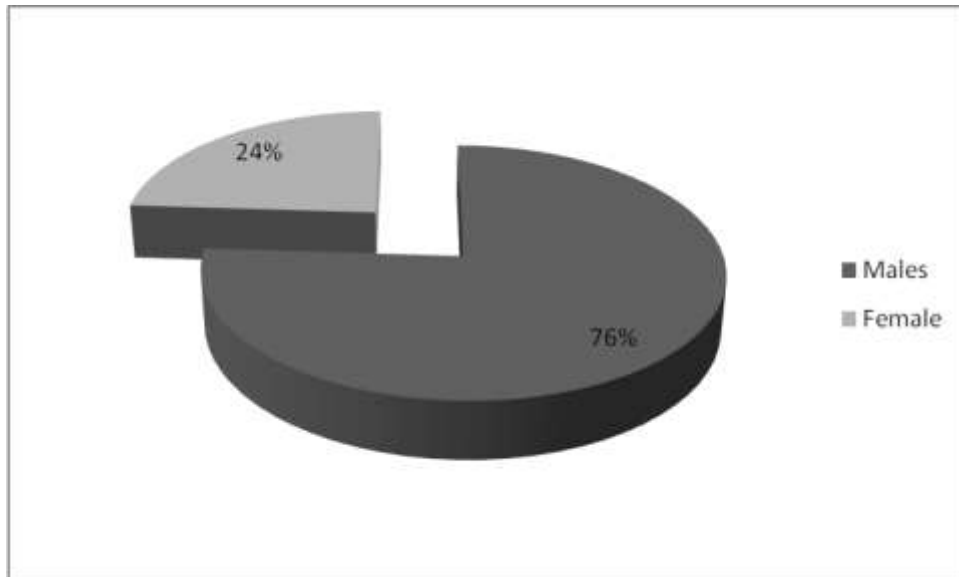
### **RESULTS AND DISCUSSION**

#### **4.1 Response Rate**

The main aim of this study was to establish the effects of cash management practices on operational performance of public hospitals in Kisii County, Kenya. To achieve this objective, a questionnaire was administered to respondents to gather information which was intended to provide vital information to enable the researcher to draw a sensible conclusion. Out of the 99 questionnaires that were administered to respondents, 92 questionnaires were fully filled and returned to the researcher. This represented 92.6% response rate and this was considered adequate for analysis and use to draw conclusions upon. Mugenda and Mugenda (2003) considers a 50% response rate as being adequate, 60% response rate as being good, while 70% as very good from which to draw conclusion. Therefore this response rate of this study was very good to use for analysis.

#### **4.2 Gender of Respondents**

The study established the gender of the respondents. The response rate obtained from the field was recorded in figure 4.1.

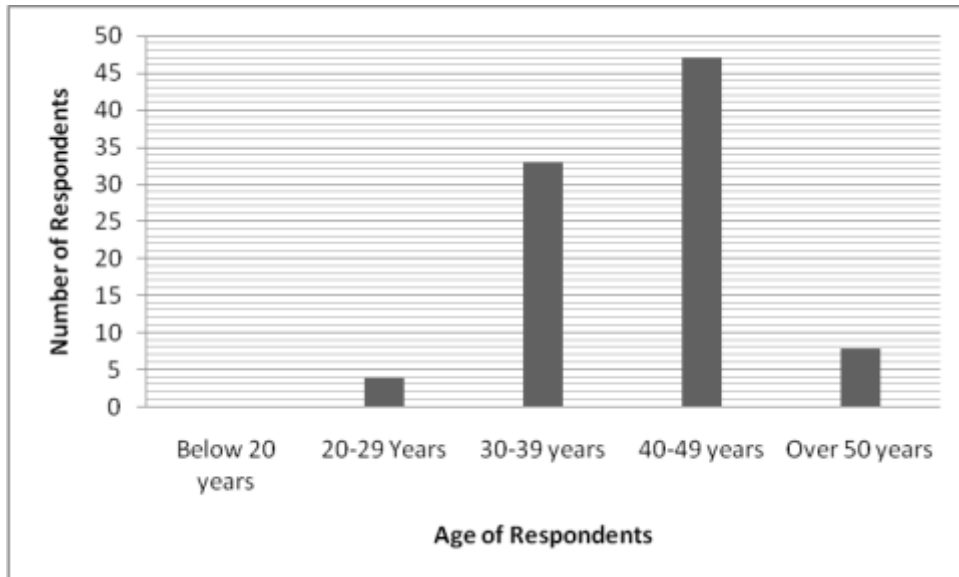


**Figure 4.1: Summary of Gender of Respondents**

Figure 4.1 shows that 76% of the respondents were males while 24% of the respondents were females. This shows that the composition of employees occupying these three positions in the hospitals is highly skewed in favor of men, contrary to the constitutional requirement that either gender should constitute at least a third of the leadership positions. Similar findings of skeweness in favour of men were found by Matunga (2013) in the research on the effect of e-procurement practices effective procurement in public hospitals: a case of Kisii Level 5 Hospital which realized that 83.3% of the Heads of Departments at the Kisii Level 5 Hospital were males while only 16.7% of the respondents were females.

### **4.3 Respondents' Age**

The study sought to establish the age of the respondents involved in the study. The results were as shown in figure 4.2.

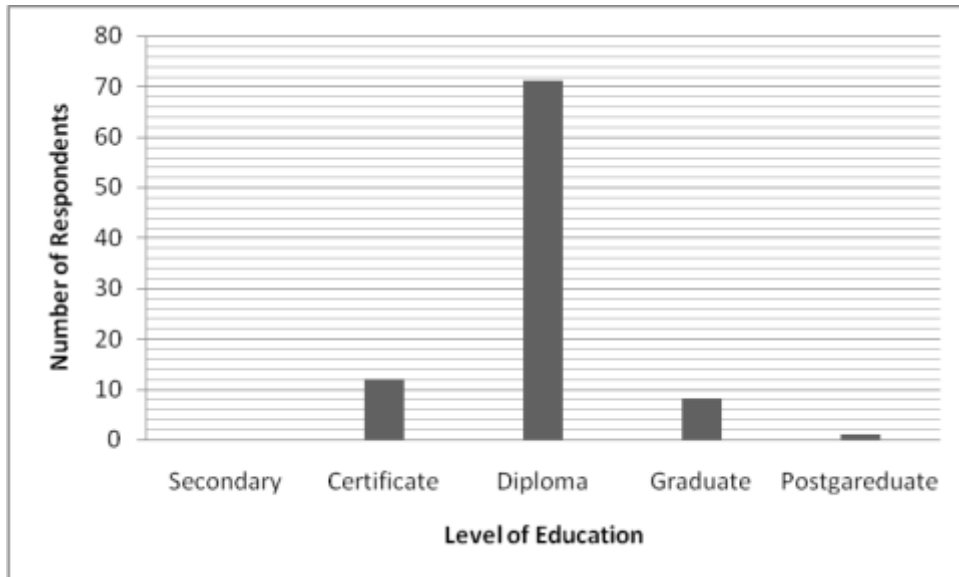


**Figure 4.2: Age of Respondents**

Figure 4.2 shows that 4 respondents were between 20-29 years of age, 33 respondents were between 30-39 years of age while 47 respondents were between 40-49 years of age. Only 8 respondents were over 50 years of age. The reason why majority of the respondents were of age between 40-49 years and also between 30-39 years could be because these is likely to be the age bracket that has worked in the hospitals for long and hence have climbed professionally to these senior ranks of Superintendent, Assistant administrators and accountants.

#### **4.4 Respondents' Level of Education**

The study wanted to know the level of education that had been attained by the respondents. The findings yielded the following results in figure 4.3 below:



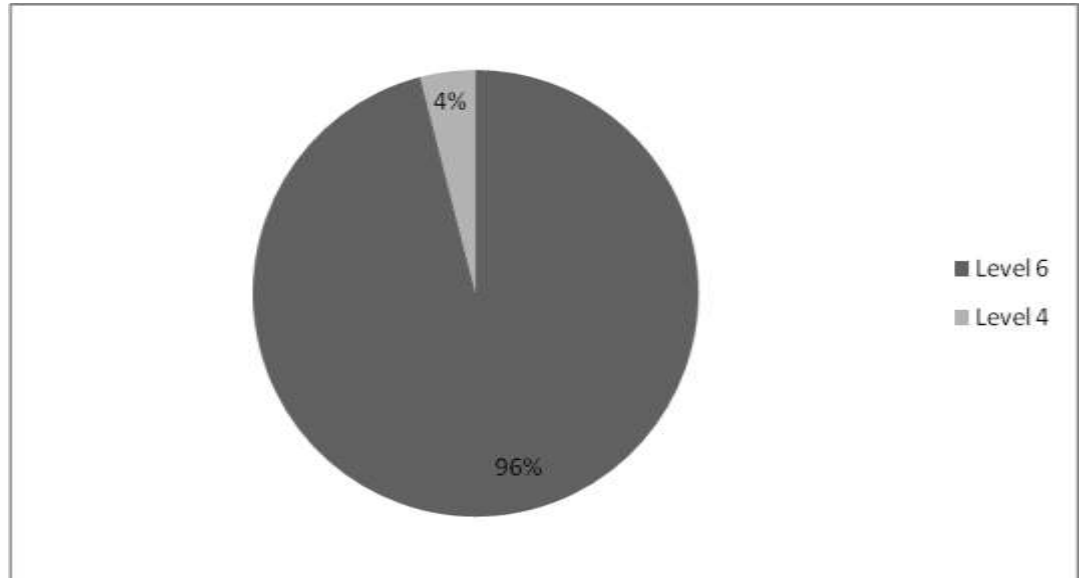
**Figure 4.3: Respondents Level of Education**

Figure 4.3 shows that 71(77.3%) respondents had Diploma level of education, one respondent had Post Graduate level of education, and 8 (8.7%) respondents had graduate level of education while 12 (13%) respondents had certificate level of education. This means that all the respondents under investigation have undergone formal education with majority of them having attained at least Diploma level of education. This further reveals that majority of the respondents have enough knowledge that can enable them work competently in their jobs. The reason why majority of the respondents have Diploma level of education could be due to the fact that most of the hospital workers (Superintendents and Assistant administrators) are those who have undergone training at the Kenya Medical Training Colleges which offer Diploma Certificates.

#### **4.5 Category of Hospitals under Study**

The study wanted to know the category to which the various hospitals under study belong. The results are presented in figure 4.4 below:



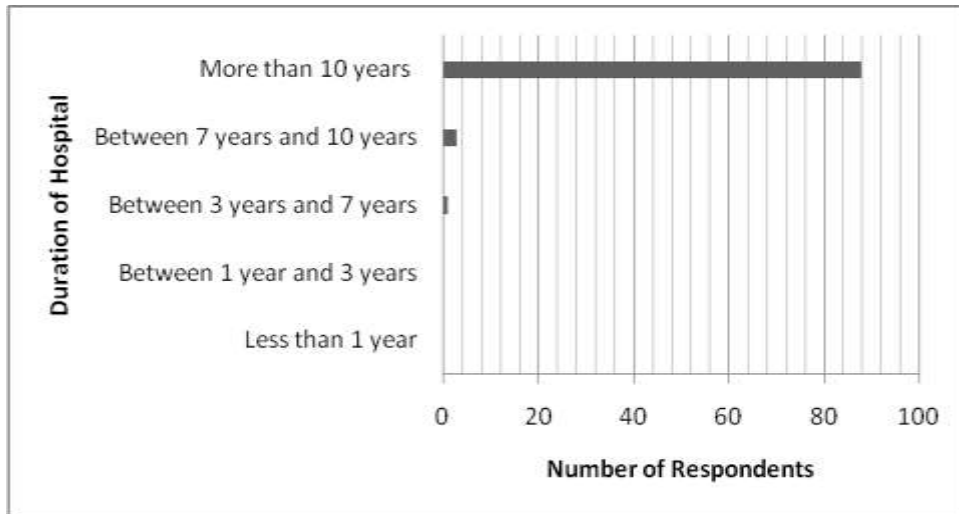


**Figure 4.4: The Categories of Hospitals under Study**

Figure 4.4 shows that 96% of the hospitals under study were level 4 hospitals (Sub County hospitals) while 4% of the hospitals under study were level 6 (Teaching and Referral hospitals). The choice of these hospitals for the study was because most people prefer going to them due to the perception that they are better equipped with personnel and medical facilities compared to level 3 and level 2 hospitals.

#### **4.6 Duration of Service at the Hospitals**

Respondents were asked to indicate the number of years they had worked at their respective hospitals. The study results are presented in figure 4.5 below:



**Figure 4.5: Duration of Service of the Hospital**

Figure 4.5 shows that 88 (95.6%) respondents declared that they had worked in their hospitals for over 10 years, 3 (3.3%) respondents disclosed that they had worked in their hospitals for between 7 years and 10 years, while only 1 (1.1%) respondent had worked at the respective hospital for between 3 years and 7 years. This implies that majority of the respondents have adequate experience in their job. Besides, it also communicates that majority of the respondents also have enough experience in the preparation of the books of accounts and also experience of performance on the public sector.

#### **4.7 Number of Employees in Hospitals**

The study sought to establish the number of employees in the hospitals under study. The employees were classified as permanent employees and casuals and the respondents were asked to indicate the number of employees in each category. The findings were as presented in table 4.1 below.

**Table 4.1: Analysis of the Number of Employees in Hospitals**

	<b>Permanent</b>	<b>Casuals</b>	<b>Total</b>
Level 4	391	410	801
Level 6	69	112	181
<b>Total</b>	<b>460</b>	<b>522</b>	<b>982</b>

Table 4.1 indicates that there were 801 employees in the Level 4 hospitals which constituted 391 permanent employees and 410 casuals, and 181 employees in the Level 6 hospital and this number constituted 69 permanent employees and 112 casual employees. This implies that the hospitals under study have casual employees who need to be paid on monthly basis, hence the need why there should be availability of funds at the hospitals to foot their wage bills. This population of employees signals the expectation to have better operations in the hospitals since the hospitals have the manpower.

#### **4.8 Keeping of Accounting Records in Public Hospitals**

The study sought to establish whether the hospitals keep accounting records. The response rate indicated that all the respondents (100%) expressed that the hospitals keep accounting records. Further on the frequency of maintaining accounting records, the study realized that 72.8% of the respondents felt that the records were kept “often”. This could be due to the requirement by the Public Accounting Procedures and the Ministry of Health that all the public offices handling money must maintain proper accounting records so as to ensure accountability of the public funds. Lane, Longstreth and Nixon (2001) stated that accounting reports are more useful for internal hospital reporting as the cost accounting information is provided at a departmental level. Besides, it is also more useful as they report data at the institutional level. Besides, 16.3% of the respondents felt that the records were kept “occasionally” while the remaining 10.9% of the respondents felt that the records were “rarely” kept.

#### 4.9 Cash Budgets and Operational Performance of Public Hospitals

The research sought to find out the effects of keeping cash budgets on operational performance of hospitals. Some aspects of cash budgets were provided on a five point likert scale for respondents to rate them. The response was as transposed on table 4.2 below:

**Table 4.2: Analysis of the Effects of Preparing Cash Budgets on Operational Performance**

Cash Budgets	Strongly agree 5	Agree 4	Undecided 3	Disagree 2	Strongly disagree 1	$\Sigma f_i$	$\Sigma f_i x_i$	$\frac{\Sigma f_i x_i}{\Sigma f_i}$
Assist in making cashflow statements	68	24	0	0	0	92	436	4.74
Ensure budgetary control	22	66	4	0	0	92	386	4.20
Reduces initiative and innovation	43	26	21	2	0	92	386	4.20
Controls hospital's spending habits	1	90	1	0	0	92	368	4.00
Demotivates employees because of lack of motivation	18	44	30	0	0	92	356	3.87
Can cause perception of unfairness	0	1	25	66	0	92	211	2.29
May interfere with the attainment of hospital goals	0	4	12	43	33	92	171	1.86
Can create competition of resources and politics	0	0	0	70	22	92	162	1.76

As table 4.2 depicts, the respondents “agreed” that cash budgets assist in making cash flow projections (4.74 mean weight), ensures budgetary control, reduces initiative and innovation (4.20 mean weight) and controls a hospital’s spending habits (4.20 mean weight). The study also observed that the respondents were “undecided” on whether cash budgets demotivate employees because of lack of motivation (mean weight 3.87). The findings are in harmony with Uwonda, Okello and Okello (2013) who noted the importance of preparing cash budgets by opining that most SMEs prepare cash flow projections, ensuring budgetary control, internal control system and controlling their

spending habits. In support of these findings, Jensen's (1989) Cash Flow Theory also warned that, when free cash flows are available to top managers, they tend to invest in negative Net Present Value (NPV) projects instead of paying out dividends to shareholders. In the hospital setup, free cash flows are likely to be misused by purchasing unnecessary equipment and infrastructure. Mungai (2013) also observed that proper cash management practices stems from creation of a realistic cash flow budget that charts finances for both the short term and longer term. According to the study, this will boost an organization's habit and redouble efforts to collect outstanding payments owed to the hospital. However, the study disagreed on the claim that preparation of cash budget may interfere with the attainment of the hospital's goals and that it can create competition of resources and politics (mean weight 1.86 and 1.76 respectively). The findings differed with Kim (2002) who observed that the dysfunctional aspects of budgets systems may interfere with the attainment of the organization's goals and also create competition for resources and politics. The findings also differed with Jensen (1989) who states that budgeting reduces free cash flows hence making an organization to focus on its goals.

#### **4.10 Operation of Bank Accounts and Performance of Public Hospitals**

The study wanted to know whether the various hospitals operated bank accounts. The results are shown on table 4.3 below:

**Table 4.3: Summary of Operation of Bank Accounts in Public Hospitals**

	<b>Percentage</b>	
	<b>Yes</b>	<b>No</b>
Operation of Bank Account	100%	0%

The results in table 4.3 depicted that all (100%) of the respondents agreed their respective hospitals operated at least one banks account. Of those that acknowledged keeping bank accounts, the study wanted to know whether the accounts were active. 65.5% of the respondents confessed that their hospital's accounts were active while

34.5% of the respondents refuted the claim. The findings show that the 65.5% of the hospitals have a means of saving the excess cash in bank account, this being an indication of cash management practice; while 34.5% of the hospitals retain all their cash without depositing the excess.

#### 4.11 Effects of Operating Bank Account on Operational Performance of Public Hospitals

The study sought to know the effects of operating bank account on operational performance of public hospitals. The results are on table 4.4 below.

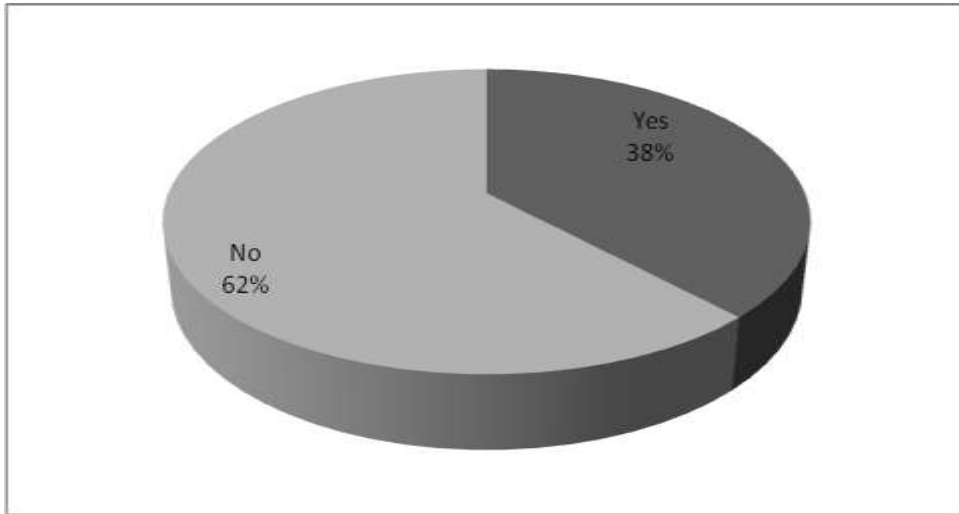
**Table 4.4: Analysis of the Effects of Operating Bank Account on Operational Performance**

Operation of Bank	Most influential 1 5	More influential 4	Moderately influential 4	Less influential 4	Not influential 4	$\Sigma f_i$	$\Sigma f_i x_i$	$\frac{\Sigma f_i x_i}{\Sigma f_i}$
Ensures security of Hospital funds	88	4	0	0	0	92	456	4.96
Helps keep track of hospital transactions	63	29	0	0	0	92	438	4.68
Improves financial controls	23	35	31	3	0	92	354	3.85
Ensures proper cash management	12	49	21	6	4	92	334	3.64
Enables fast payment of bills in accounts far series in hospitals	11	31	32	16	2	92	309	3.36
Enables tracking of funds	7	9	21	47	8	92	236	2.57

As table 4.4 shows, the most influential reason why hospitals consider operating banks accounts is because it ensures security of business funds (weight 4.96 on a five point likert scale) besides helping keep track of business transactions (weight 4.68 on a five point likert scale) implying that the factors were more influential. However, the study also realized that the following factors moderately influence hospitals to operate a bank account: It improves financial controls (weight 3.85 on a five point likert scale), ensures proper cash management (weight 3.64 on a five point likert scale) and enables fast payment of bills in accounts weight 3.36 on a five point likert scale). Further still, the respondents claimed that, enabling tracking of funds(weight 2.57 on a five point likert scale) is less influential in encouraging a public hospital to operate a bank account. This means that assurance of security of hospital funds and helping keep track of hospital transactions are the major factors which influence opening of bank accounts while tacking of funds is less influential. On one hand, these findings are consistent with Attom (2014) who observed that a business's bank account helps it to keep track of business transactions and also ensures the security of its funds, while on the other hand they differ on the claim that, operating bank accounts enables tracking of funds.

#### **4.12 Effects of Book Keeping on Operational Performance**

The research sought to establish if the respondents had sufficient knowledge on record keeping. The findings revealed that 38% had sufficient knowledge on record keeping while 62% had no sufficient knowledge on record keeping (figure 4.6 below).



**Figure 4.6: effects of Book keeping on operational Performance**

The research went further to establish the effect of book keeping on the operational performance of hospitals. This was aimed at addressing the third objective which was to establish the effects of book keeping on operational performance of public hospitals. It was perceived that, to some extent, book keeping could have an influence on the operational performance of an organization. The findings are presented on table 4.5



**Table 4.5: Effects of Book Keeping on Operational Performance**

	Strongly Agree 5	Agree 4	Undecided 3	Disagree 2	Strongly Disagree 1	$\Sigma f_i$	$\Sigma f_i x_i$	$\frac{\Sigma f_i x_i}{\Sigma f_i}$
To facilitate cash payment of supplies on daily basis	35	39	13	5	0	92	380	4.13
To reconcile cash and bank accounts of payments of government funds	34	41	15	2	0	92	379	4.11
To maintain cash receipts on daily basis	37	25	21	3	6	92	360	3.91
To prepare balance sheet at the end of accounting period	0	2	21	41	28	92	181	1.97

The respondents agreed that the hospitals facilitate cash payment on daily basis and also reconcile cash and bank accounts (weight 4.13 and 4.11 on a five point Likert scale). The respondents were not decided on whether or not the hospitals maintain cash receipts on daily basis (weights 3.91). This disparity on this claim that book keeping maintain cash receipts on daily basis indicate that cash receipts is not priority in public hospitals. This could be due to the fact that cash receipts in hospitals largely depend on the number of patients which is difficult to predict. The respondents also strongly disagreed to the claim that hospitals prepare balance sheet at the end of accounting period (weight 1.97 on a five point likert scale). This means that the public hospitals are very much concerned about making cash payments on daily basis and also reconcile cash and bank accounts. This could be the probable reason why some of the hospitals do not operate

bank accounts. The findings are consistent with Ademola et al. (2012) who observed that book keeping facilitates cash payment on daily basis besides reconciling cash and bank accounts. However, the study disagreed with Ademola et al. (2012) who stated that book keeping assists in preparing balance sheet at the end of accounting period. This could be because balance sheets and profit and loss accounts are rarely kept in public sector.

#### **4.13 Effects of Cash Management Practices on Operational performance**

The study sought to know the effects of cash management practices on operational performance. Several selected attributes of operational performance were presented on a five point likert scale and respondents were asked to rate them. The results are presented on table 4.6 below:

**Table 4.6: Analysis of Effects of Cash Management Practices on Operational Performance Indicators**

S/NO		Most affected 5	More affected 4	Moderately affected 3	Less affected 2	Not affected 1	$\Sigma f_i$	$\Sigma f_i x_i$	$\frac{\Sigma f_i x_i}{\Sigma f_i}$
1	The hospital has enough child weighing scales	84	7	1	0	0	92	451	4.90
2	The hospital has enough adult weighing scales	82	6	2	1	1	92	443	4.82
3	There is enough regular supply of safe water in the hospital	28	60	3	1	0	92	391	4.25
4	There is constant supply of electricity in the hospital	26	62	3	1	0	92	389	4.23
5	There is adequate waiting area for patients	15	77	0	0	0	92	383	4.16
6	The hospital has enough disinfectants	29	50	9	2	2	92	378	4.11
7	There are written infection control guideline at the hospital	8	82	2	0	0	92	374	4.07
8	There are enough maternity beds in the hospital	4	35	46	6	1	92	311	3.38
9	There are enough beds in the hospital for patients.	10	26	44	10	2	92	308	3.35
10	The hospital has adequate supply of syringes and needles	0	5	37	32	18	92	213	2.32
11	There are enough personnel in the hospital	0	2	27	53	10	92	205	2.23
12	The hospital has adequate supply of drugs	0	8	34	19	31	92	203	2.21
13	There are enough buildings housing hospital facilities	0	17	21	13	41	92	198	2.15
14	The hospital has enough gloves for use	0	3	24	42	23	92	191	2.08

As table 4.6 shows, it was agreed that the hospital has enough child weighing scales (weight 4.90), enough adult weighing scales (weight 4.82), and there is enough regular supply of safe water in the hospital (weight 4.16). The respondents also agreed that there is constant supply of electricity in the hospital, there is adequate waiting area for patients, the hospital has enough disinfectants, and that there are written guidelines in at the hospital. All these claims were given a weight of over 4 on a five point likert scale. The findings concur with the study by WHO (2008) which stated identified regular water supply from safe source on-site, waiting area protected from sun and rain, communication equipment and electricity, regular and adequate provision of basic equipment for instance adult weighing scale, child weighing scale, infection control as the service delivery indicators in hospitals focusing on low and lower middle income countries.

However, the study “disagreed” with the claims that the hospitals have adequate supply of syringes and needles (mean 2.32), there are enough personnel in the hospital (weight 2.23) and that the hospital has adequate supply of drugs (2.2). Besides, there was also disagreement on the claim that there are enough buildings housing hospital facilities (weight 2.15) and that the hospital has enough gloves for use (weight 2.08). These claims were in disagreement with the study by WHO (2008) which identified regular and adequate provision of basic equipment for needles and syringes, gloves, drugs and diagnostics and human resource as key in strengthening service delivery in hospitals so as to achieve the Millennium Development Goals.

#### **4.14 ANOVA Results**

An Analysis Of Variance (ANOVA) test was run using the SPSS version 21 in an effort to determine the significance of each of the independent variables on the dependent variables. The findings were as presented in table 4.7 below:

**Table 4.7: ANOVA Table**

		Sum of Squares	df	Mean Square	F	Sig.
Cash budget	Between groups	23412.860	3	7804.28	2.11	.003
	Within groups	328693.718	89	3693.19		
	Total	562822.32	92			
Bank accounts	Between groups	182534976.17	3	60844992.06	13.92	.000
	Within groups	389128716.76	89	4372232.77		
	Total	221447792.93	92			
Book keeping	Between groups	2178452445.65	3	726150815.20	8.32	.009
	Within groups	7767781250.000	89	87278441.01		
	Total	49946233695.652	92			

This means that, at 5% level of significance, the factors “cash budget” (P-value .003), “Bank accounts” (P-value .000) and “Book keeping”(P-value .009) are all significant in determining the operational performancesince their P-values are less than 5%. This means that cash budget, operating bank account(s) and book keeping all have a significant influence in determining the operational performance of public hospitals.

#### **4.15 Regression Analysis**

The researcher conducted a multiple regression analysis so as to test relationship among independent variables (Cash budgets, Operating banks accounts and Book keeping) on the Operational performance of public hospitals. By using the Statistical Package for Social Science (SPSS) version 21 software, data were entered and then regression was done. The coefficients so found (shown on table 4.7) were used to write the full multiple linear regression equation below:

$$OP = \beta_0 + \beta_1 CB + \beta_2 BA + \beta_3 BK + \varepsilon$$

$$OP = 271.85 + 1.21CB + 4.024BA + 20.2241BK,$$

Where

*CB* –Cash budgeting

*BA* –Operating bank account

*BK* –Book keeping

$\varepsilon$  –Error term

**Table 4.8: Table of Coefficients**

<b>Table 4.7: Table of Coefficients</b>					
<b>Model</b>	<b>Unstandardized coefficients</b>		<b>Standardized Coefficients</b>	<b>T</b>	<b>Sig.</b>
	<b>B</b>	<b>Std. Error</b>	<b>Beta</b>		
(Constant)	271.85	160.900		.410	.007
Cash Budgeting	1.21	1.828	.389	.548	.046
Bank Account	4.024	3.327	.141	.298	.025
Book Keeping	20.2241	5.257	.493	.765	.001

a. Dependent Variable: Operational Performance

From table 4.7, the positive values of unstandardized beta are statistically significant in inferring operational performance imply that, cash budgeting, operating bank accounts and book keeping have positive effects on the operational performance of public hospitals. It is also evident from the table that cash budgeting account for 38.9% effect size in influencing operational performance, operating bank accounts account for 14.1% effect size in influencing operational performance while book keeping account for 49.3% effect size in influencing operational performance in public hospitals. This means that all the three independent variables under study in the three objectives (cash budgeting, operating bank account and book keeping) all have significant influence on the operational performance of the public hospitals.

#### 4.16 Model Summary of Regression Analysis

The multiple regression analysis also produced a summary of the multiple regression model. Table 4.9 shows the model summary.

**Table 4.9: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.678 <sup>a</sup>	.652	-.096	219366.08274

a. Predictors: (Constant), Cash Budgeting, Bank Account, Book keeping

The value  $R^2$  also called the coefficient of multiple determinations, is the percent of the variance in the dependent explained uniquely or jointly by the independent variables. As table 4.2 depicts, the value of the coefficient of determination,  $R^2$  was found to be .652.

This communicates the fact that 65.2% of the factors determining the operational performance of public hospitals are explained by the three independent variables under consideration in this study (cash budgeting, operating bank account and book keeping). The remaining 34.8% of the operational performance are explained by factors outside the model. The value “R” in the summary model tells explains the correlation between the predicted value and the observed values. From the study, it was realized that the

value of “R” was .678, implying that the correlation between the predicted values and the observed values was 0.678.

## **CHAPTER FIVE**

### **SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Summary of Findings**

The study had several objectives at hand that it sought to address. The first objective of the study was to identify the effects of preparing cash budgets on operational performance of public hospitals in Kisii County. The study found out that, that cash budgets assist in making cash flow projections, ensures budgetary control, reduces initiative and innovation and controls a hospital’s spending habits. However, the study realized that cash budgets may not interfere with the attainment of the hospital’s goals and neither can it create competition of resources and politics. The ANOVA results revealed that, at 5% level of significance, cash budget (P-value .003) has a significant influence in determining the operational performance of public hospitals. The results from regression analysis indicated that cash budgeting accounts for 38.9% of the factors influencing operational performance.

The second objective of the study was to determine the effects of operating bank accounts on operational performance of public hospitals in Kisii County. The study found out that the respondents agreed that operating a bank account ensures security of hospital funds besides helping keep track of hospital transactions and training activities. However, the study reiterated that operating a bank account does not enable tacking of funds. The ANOVA results revealed that, at 5% level of significance, operating bank accounts” (P-value .000) has a significant in determining the operational performance since their P-values are less than 5%. The findings from the regression analysis further



confirmed this claim by disclosing that, operating bank accounts for 14.1% of the factors that influence operational performance.

The third objective of the study was to establish the effects of Book Keeping on operational performance of public hospitals in Kisii County. The respondents agreed that the hospitals keep records of all cash payment on daily basis and that Budgeting facilitates accountability. The ANOVA results revealed that, at 5% level of significance, book keeping (P-value .009) is significant in determining the operational performance since their P-values are less than 5%. The values from regression analysis revealed that book keeping accounts for 49.3% of the factors influencing operational performance in public hospitals.

## **5.2 Conclusion**

Based on the above findings, it therefore leads into several conclusions. In line with the first objective which was to identify the effects of preparing cash budgets on operational performance of public hospitals in Kisii County, it was found out that, cash budget has a significant influence in determining the operational performance of public hospitals. As regards to the second objective which was to determine the effects of operating bank accounts on operational performance of public hospitals in Kisii County, the study revealed that operating bank accounts has a significant effect in determining the operational performance. The third objective of the study was to establish the effects of Book Keeping on operational performance of public hospitals in Kisii County. It was realized that book keeping was significant in determining the operational performance of public hospitals.

## **5.3 Recommendations**

Based on the findings and conclusions on objective one which was to identify the effects of preparing cash budgets on operational performance of public hospitals in Kisii County, the study recommends that the hospital management should maintain and

encourage the accountants and other relevant employees to prepare cash budget always for this will help in making purchases for goods and services only budgeted for. The hospitals management should also be encouraged to open bank accounts to which they can deposit excess cash since this will act as a safe custody of the hospital funds until when the need to use them arises. Based on the findings and conclusions on third objective, the study suggests that hospital management should maintain proper books of accounts for this in one way will help track movements and use of funds by the hospital.

#### **5.4 Suggestions for Further Research**

The study only concentrated on the public hospitals in Kisii County. All the findings pertaining this research may not necessarily apply to all the hospitals in the whole country. Therefore, a similar study needs to be done in other counties to establish the effects of cash management practices on performance. Besides, the study involved only levels 6 and 4 hospitals, hence the need to undertake a research to incorporate other levels of hospitals.

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## APPENDICES

### Appendix I: Questionnaire

#### EFFECTS OF CASH MANAGEMENT PRACTICES ON OPERATIONAL PERFORMANCE OF SELECTED PUBLIC HOSPITALS IN KISII COUNTY

Kindly answer the following questions as accurately as possible. The information will not be used for any other purpose than the research for which it is intended.

#### Section A: Background Information

1. Kindly indicate your gender. (Tick as appropriate)

Male  Female

2. Select your age bracket. (Tick as appropriate)

Below 20 years  20-29 years

30-39 years  40-49 years

50 and above

3. Highest level of education attained? (Tick as appropriate)

Secondary level  Certificate level

Diploma level  Graduate level

Post Graduate level

Any other (specify).....



4. The category in which your hospital belongs

- Teaching and Referral [ ]
- Sub County hospital [ ]
- Dispensary [ ]

5. The number of years your hospital has been in existence

- Less than 1 year [ ]
- Between 1 year and 3 years [ ]
- Between 3 years and 7 years [ ]
- Between 7 years and 10 years [ ]
- More than 10 years [ ]

6. The number of employees in your hospital under the following categories

- Permanent employees.....
- Casuals.....

**Effects of Preparing Cash Budgets on Operational Performance**

7. Does your hospital prepare cash budgets?

- Yes [ ]                      No [ ]

If yes, how often?

- Very often [ ]
- Often [ ]
- Occasionally [ ]
- Rarely [ ]

Never [ ]

8. Please indicate the extent to which you agree with the following statements concerning your hospital

<b>Cash Budgets</b>	<b>Strongly agree 5</b>	<b>Agree 4</b>	<b>Undecided 3</b>	<b>Disagree 2</b>	<b>Strongly disagree 1</b>
Assist in making cash flow projections					
Ensure budgetary control					
Controls hospital's spending habits					
Demotivates employees because of lack of motivation					
Can cause perception of unfairness					
Can create competition of resources and politics					
Reduces initiative and innovation					
May interfere with the attainment of hospital goals					

### **Effects of Operating Bank Account on Operational Performance**

9. Does your hospital operate a bank account?

Yes [ ] No [ ]

If yes, is the account active?

Yes [ ] No [ ]

10. What is the type of the bank account?

Fixed account [ ] Current account [ ]

11. Please indicate the extent to which you agree with the following statements concerning your hospital

<b>OPERATING A BANK ACCOUNT</b>	<b>SIMPLY AGREE 5</b>	<b>AGREE 4</b>	<b>UNDECIDE D 3</b>	<b>DISAGRE E 2</b>	<b>SIMPLY DISAGRE E 1</b>
Ensures security of business funds					
Helps keep track of business transactions					
Improves financial controls					
Ensures proper cash management					
Ensures fast payment of bills in accounts					
Enables tracking of funds					
Improves chances of security loans					

**EFFECTS OF BOOK KEEPING ON OPERATIONAL PERFORMANCE**

12. Do you have sufficient knowledge on record keeping?

Yes            [   ]    No            [   ]

13. Have you ever undertaken a course on cash management or attended seminar on cash management?

Yes            [   ]    No            [   ]

14. Does your hospital keep accounting records

Yes            [   ]    No            [   ]

If yes, how often does your hospital undertake book keeping?

Very often            [   ]

Often                    [   ]

Occasionally        [   ]

Rarely                   [   ]

Never                    [   ]

15. If yes, please identify the type of accounting records kept by your hospital

i) .....

ii) .....

iii) .....

iv) .....

v) .....

16. By placing a tick in the appropriate box, please indicate whether your hospital undertakes the following from the list provided below:

Preparation of cash budget            Yes   [   ]                    No   [   ]

Operating bank accounts            Yes   [   ]                    No   [   ]

Keeping track of cash receipts            Yes   [   ]                    No   [   ]

Keeping track of cash payments            Yes   [   ]                    No   [   ]

Keeping proper books of accounts            Yes   [   ]                    No   [   ]

17. In your opinion, do you think book keeping improves operational performance of your hospitals?

Yes [ ] No [ ]

18. Please indicate the extent to which you agree with the following statements concerning your hospital

	<b>Strongly agree 5</b>	<b>Agree 2</b>	<b>Undecided 3</b>	<b>Disagree 4</b>	<b>Strongly disagree 1</b>
We keep records of all cash payment on all daily basis					
Budgeting facilities accountability					
We keep records of all cash receipts on all daily basis					
We prepare profit and loss account for our hospitals					
We prepare balance sheet at the end of accounting period					

19. From the list provided, please identify the factors which determines the optimal amount of cash to hold at any given time in your hospital

- Working capital needs [ ]
- Cashflow forecasts [ ]
- Use of cash budget [ ]
- Use of daily expenses [ ]

20. Apart from the challenges listed in (10) above, please identify any other challenges which you face in your effort to undertake cash management practices

- i) .....
- ii) .....
- iii) .....

### Operational performance

21. Please indicate the extent to which you agree with the following statements concerning your hospital

	<b>Simply agree 1</b>	<b>Agree 2</b>	<b>Undecided 3</b>	<b>Disagree 4</b>	<b>Simply disagree 5</b>
The hospital has enough child weighing scales					
The hospital has enough adult weighing scales					
There is enough regular supply of safe water in the hospital					
There is constant supply of electricity in the hospital					
There is adequate waiting area for patients					
The hospital has enough disinfectants					
There are written guidelines in the hospital					
There are enough maternity beds at the hospital					
There are enough beds for patients					
The hospital has adequate supply of syringes and needles					
There are enough personnel at the hospital					
The hospital has adequate supply of drugs					
There are enough buildings housing hospital facilities					
The hospital has enough gloves for use					
the hospital has adequate communication equipment					

**END**

## **Appendix II: Letter Of Introduction**

RoselineAtienoMuthama,

P.O. Box 564,

Kisii.

Dear Sir/Madam,

I am an MBA (Finance Option) student at JKUAT Kisii CBD and conducting a research the effects of cash management practices on financial performance of public hospitals in Kisii County. As part of the requirements of the degree, I am required to undertake the research and you have been selected as one of the respondents. I therefore humbly request you to answer the questions in the attached questionnaire which will be used for analysis in the research. The information so obtained will be treated as CONFIDENTIAL and will not be used for any other purpose other than the research.

Thanks in advance.

Roseline A. Muthama,

The Researcher