

**THE RELATIONSHIP BETWEEN BUDGETING PRACTICES AND
PERFORMANCE OF ORGANIZATIONS IN THE WATER SECTOR
IN KENYA**

BY

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DECLARATION

This research project is my original work and has not been presented for the award of a degree in any other University.

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This research project has been submitted for examination with my approval as the University Supervisor.

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Many thanks to God the almighty whose love and care made it possible for me to undertake every step that was necessary for the completion of this work (1 Cor. 15:57).

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Finally, I owe my gratitude to my respondents, management and staff of the selected Water Service Providers, my colleagues at work, fellow students and any other person that contributed in any manner in completion of this project.

DEDICATION

This work is dedicated to my dear wife Catherine Muthoni and to my sons Ryan Mbugua and Leon Mwangi for their every support, encouragement, prayers and their presence in my life during the time I worked on this project.

ABSTRACT

The importance of the budget cannot be over emphasized considering its role in operationalizing an organization's strategic plan. Budgeting is defined as a forward looking set of numbers which projects the future financial performance of a business, and which is useful for evaluating the financial viability of the business's chosen strategy or deciding whether changes to the overall plan are required. Since the enactment of the Water Act 2002, no study that the researcher is aware of has been done to determine the extent to which organizations in the water sector have embraced budgeting practices and how these modern practices have improved their performance. This study therefore sought to determine the relationship between the budgeting practices and performance of organizations in the water sector in Kenya.

The research design employed in the study was a cross-sectional research design where the researcher studied financial performance of water service providers for 2010/2011 financial year and sought to determine the relationship between budgeting practices and performance of these organizations in that period. In this study four aspects of budgeting practices were studied namely; budgeting approaches, budget planning, budget controls and participatory budgeting. Performance was measured by the degree of efficiency in revenue collection and regression analysis used to determine the resulting relationship.

The study found that budget planning and participation in budgeting by members of staff each have significant p-value of 0.001 which is less than the acceptable 0.05 level of significance and thus have a positive effect on revenue collection efficiency. On the contrary, budget control practices and budget approaches adopted were found to have insignificant p-values of 0.651 and 0.485 respectively. Though the p-value of the entire model is also significant at 0.002, the study concludes that budget planning and participation in budgeting by members of staff are critical and should be emphasized in order to improve performance of the water service providers.

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ABBREVIATIONS AND ACRONYMS

AAPM	Australian Association of Practice Managers
BAI	Budget Approach Index
BCI	Budget Control Index
BPAI	Budget Participatory Index
BPI	Budget Practice Index
BPLI	Budget Planning Index
CBO	Community Based Organization
NGO	Non-Governmental Organization
NRW	Non-Revenue Water
P-value	Probability value
RCE	Revenue Collection Efficiency
SBS	Sector Budget Support
WAB	Water Appeals Board
WASREB	Water Services Regulatory Board
WRMA	Water Resources Management Authority
WSB	Water Service Board
WSC	Water and Sewerage Company
WSP	Water Service Provider
ZBB	Zero-Based budgeting

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Budgets are considered to be the blue prints used by an organization to operationally its strategic plan. Anthony (1965), Swieringa and Moncur (1975), Bruns and Waterhouse (1975) have for a long time supported the claim that budgeting is a means for facilitating and enabling the process by which resources are acquired, allocated among subunits, and consumed in the achievement of organizational objectives. The mission that results from this definition is to make budgetary practices more reflective of organizational processes to arrive at better resource allocation decisions.

Budgets have been recommended for planning, monitoring, and controlling business activities, with each thought to assist businesses to achieve profitability (Horngren et. al., 2005). However, the effect of budgets on profitability has not as yet been clearly demonstrated in the literature (McMahon, 2001). There is evidence of a positive association between the use of budgets and performance as proxied by growth in small and medium enterprises (Gorton, 1999). Even without extensive empirical evidence, planning and the use of appropriate budgets are promoted by academics, educators and accounting practitioners as a means of enhancing financial performance (Hansen et. al. 2003, Gorton, 1999).

Budgeting is the cornerstone of the management control process in nearly all organizations, but despite its widespread use, it is far from perfect. (Hansen et al, 2003). Practitioners express concerns about using budgets for planning and performance evaluation.

The practitioners argue that budgets impede the allocation of organizational resources to their best uses and encourage myopic decision making and other dysfunctional budget games. They attribute these problems, in part, to traditional budgeting's financial, top-down, command and-control orientation as embedded in annual budget planning and performance evaluation processes Schmidt (1992), Bunce (1995), Hope and Fraser (1997), Wallander (1999), Ekholm and Wallin (2000), Marcino (2000) and Jensen (2001).

1.1.1 Budgeting Practices

A budget is a forward looking set of numbers which projects the future financial performance of a business, and which is useful for evaluating the financial viability of the business's chosen strategy or deciding whether changes to the overall plan are required (Davila and Foster, 2005). Budgets have been identified as playing a number of roles which include making goals explicit, coding learning, facilitating coordination, promoting accountability, facilitating control, and contracting with external parties (Davila et al, 2008). Benefits of budgeting include increasing efficiency through planning and coordination, supporting both control and learning through the comparison of actual results with plans, and more globally "the ability to weave together all the disparate threads of an organization into a comprehensive plan that serves many purposes" (Hansen et al., 2003).

Henley et al (1992) defines Budgeting as “a process of measuring and converting plans for the use of real (i.e. physical resources) into financial values. It is the classic problem of how to add together quantities of apples and oranges into a meaningful economic measurement, the only practical way for everyday use is to express their economic values in terms of monetary costs and revenues. Through the process of budgeting the finance function provides the essential link between management planning and management control.”

Budgeting is the cornerstone of the management control process in nearly all organizations, but despite its widespread use, it is far from perfect. Practitioners express concerns about using budgets for planning and performance evaluation. The practitioners argue that budgets impede the allocation of organizational resources to their best uses and encourage myopic decision making and other dysfunctional budget games. They attribute these problems in part, to traditional budgeting financials, top-down, command and-control orientation as embedded in annual budget planning and performance evaluation processes Schmidt (1992), Bunce (1995), Hope and Fraser (1997), Wallander (1999), Ekholm and Wallin (2000), Marcino (2000) and Jensen (2001).

Budget planning focuses more on a forecast purpose to estimate what is likely to occur in the future and how organizational resources are allocated to realize future operations. Moreover, another important part of budgeting is that of feedback, in which both the plan and the action are compared, providing the opportunity to revise future budgets in line with experience.

Budget practices involve all those processes and procedures that are followed in budget development and implementation. They include choice of budget approach, budget planning, budget control and review, performance measurement among others. Below is a breakdown of some of the budget practices

Budgeting Practices are divided into modern and traditional approaches. The traditional approach to budgeting usually focuses on a fixed timed period, usually coinciding with the company's fiscal year. Forecasting values remain static, and are not changed during the life of the budget-cycle (Nolan, 2005). Jones (1998) further emphasized the forecasting process as the core differentiating element between traditional and modern *approach*. The traditional incremental budgeting process begins with last year's continuing budget figures as the base budget. These numbers are then adjusted to reflect inflation, growth, changing conditions and other information gathered from financial forecasts for the upcoming fiscal year (Rivero and Emblemavag, 2007).

Modern budgeting creates a rolling budget. A budget that is continuously updated so that the time frame remains stable while the actual period covered by the budget changes. As each month passes, a one-year rolling budget would be extended by one month so that there would always be a one-year budget in place (Hosack, 2006). Forecasting values remain flexible.

Budgeting as a plan and a control device has an important impact on firm performance. However, another crucial benefit of the budgeting process, not to be ignored, is the sharing of information (Hopwood, 1976; Parker and Kyi, 2006) between organizational members.

McLaney and Atrill (1999) argues that the value of the budget as a plan of what is to happen and as a standard against which actual performance will be measured, depends largely on whether and how skillfully this negotiation is conducted. When setting a budget, members of the organization are supposed to participate in defining explicit budgetary goals and to be involved in subsequent revisions to these goals with the management (Chalos and Poon, 2000). And when budget variance(s) occurs, participation and discussion among different levels of management facilitate and enable accurately identifying the possible reasons for such variance(s) and also the corresponding corrective actions to be taken. Therefore, budgetary participation (BP) refers to the involvement of managers in the budgetary process and their influence over the setting of budgetary targets (Subramaniam and Ashkanasy, 2001).

The process of preparing a budget requires proper planning. Bodie and Metton (2000) see budget planning as developing quantitative goals of the organization and preparing various budgets. An organization's budgeting system is goal oriented. In many firms, the budget designed to attain short-run goals, is prepared in conjunction with five-year financial plan designed to achieve long-run goals. Business organizations use long-term budgets to lay out the planned financial goals and actions over periods ranging from two to ten years.

It is common knowledge that effective control is often necessary for achieving the maximum results from a predetermined plan of action in any organization. Even an excellent plan or budget may not produce the results as expected due to numerous unforeseen circumstances, which are internal or external to the firm. Therefore, measuring actual performance against planned performance from time to time and taking remedial action on factors causing unfavorable deviations from the plan are important for maximizing the results anticipated through planning

(Koontz and Weihrich, 1998; Wildavsky, 1975). Merchant (1985) provides empirical evidence that managers perform better when their superiors accepted a reasonable explanation for an unfavorable budget variance. McWatters (2008) also states that the unfavorable variances might not be seen to be harmful to the company when managers are required to provide justifications.

1.1.2 Performance Indicators for organizations in the water sector

A performance indicator is a parameter or value derived from parameters which provides information about the achievements of an activity, a process or an organization with a significance extending beyond that directly associated with a parameter value. Performance indicators do not have numerical values associated with them, until they are benchmarked or targets. Numerical values are determined by the responsible authority for the organization reporting the benchmark or establishing a target.

According to the performance review report of the water sector in Kenya, the key performance indicators (KPIs) of organizations in this sector include: These are Water Coverage, Sanitation Coverage, Non-Revenue Water, Water Quality (Residual Chlorine and Bacteriological), Hours of Supply, Metering Ratio, Revenue Collection Efficiency, Staff Productivity, Operation and Maintenance Cost Coverage.

1.1.3 The Relationship between Budgeting Practices and Performance

In theory, it is expected that modern budgeting approach should result in a better performance, both financial and non-financial. Traditional accounting literature stresses the technical and rational roles of budgeting in organization. They view budgeting as a technical process to reflect and promote rationality in decision-making or as a technical device for coping with an objective world and to rationally foster efficiency, order, and stability (Covaleski, et al.1985). Accordingly, the rational level of budgeting decisions is based on the degree of information accuracy. Merchant (1981), however, states that the adoption of more sophisticated budgeting, including greater use of computer, technical staff, and financial modeling, enhances the correctness of budgetary plan, and in turn, results in higher performance in firms.

Psychological theories state that the opportunity given to subordinates through participation (the upward information sharing) in budgeting process can stimulate their motivation and commitment with budget-setting, which in turn improves the subordinates' job satisfaction and performance (Brownell and McInnes, 1986; Chenhall and Brownell, 1988; Kren, 1992). Shields and Shields (1998) also explore budgetary participation and performance relationship from a psychological aspect. They state that participation enhances a subordinate's trust, sense of control and ego-involvement with the organization, which leads to more acceptance and commitment to the budget decisions and in turn lead to improved performance.

1.1.4 The Water Sector in Kenya

Following the water sector reforms contained in the Water Act, 2002, the Ministry of Water and Irrigation transferred the management and operation of water services to the Water Services Boards (WSBs) with effect from July 2005. The functions of provisions of water services are regulated through and under the authority of a license by the Water Services Regulatory Board. The Water Services Boards are the sole mandated authorities to obtain the licenses for the provision of water services for their respective jurisdictions.

The Ministry of Water and Irrigation transferred its functions for the provision of water services to the Water Services Boards within their respective areas of jurisdiction. The property, rights and liabilities of the Director of Water, are now vested in the Water Services Boards. The Government, its statutory corporations and other authorities (including the National Water Conservation and Pipeline Corporation) transferred the ownership and utilities of its water services facilities to the WSBs. Water companies established by local authorities undertake the provision of water services and the overall control and management of water services facilities through an agreed legal framework with WSBs; Non-Governmental Organizations (NGOs), Community Based Organizations (CBOs) and other community and self-help groups are required to enter into management agreements with WSBs regarding the management and control of water services facilities owned and used by them.

1.2 Statement of the Problem

The importance of the budget cannot be overlooked considering its role in operationalizing an organization's strategic plan. Davila and Foster (2005) define budgeting as a forward looking set of numbers which projects the future financial performance of a business, and which is useful for evaluating the financial viability of the business's chosen strategy or deciding whether changes to the overall plan are required. It follows therefore that the budget practices followed in preparing a budget does have a fundamental effect on its ability to achieve its functions. Budget practices involve all those processes and procedures that are followed in budget development and implementation. Some of the important budget practices include choice of budgeting approach which are broadly categorized as either modern or traditional, Budget planning procedures, budget control procedures to ensure unfavorable variances are minimized and participation of staff members in budget development and implementation.

Water sector in Kenya has not only undergone a number of reforms aimed at ensuring efficiency and enhanced performance in the delivery of this essential service, but is one that is heavily funded by donors. According to a performance review of Kenya's water service sector 2010/2011 report, it is reported if there is one lesson to be learnt over the past eight years, it must be that reform efforts envisaged in the water sector must be supported by a change in attitudes, managerial practices and organizational capacities.

Globally, a number of studies have been done in the area of budgeting. Voigt (2010) did a study on the theory of budgeting and its practical applications in German independent hotels and found that a significant difference exists between budgetary procedures defined theoretically and actually applied ones. Hansen et al (2003) reviewed literature on Practice Developments in Budgeting and concluded that there is a considerable level of concern with budgeting in practice, indicating its potential for continued scholarly research. A study by Clarkson et al (2009) on budgeting practices and performance in small healthcare businesses found that factors identified by contingency-based research are useful for predicting a business's budgeting practices. Handley, (2009) reviewed case studies on Sector Budget Support (SBS) in practice and concluded that traceability, earmarking and associated additional arrangements determine to a considerable extent how SBS works in practice.

Locally, some studies have also been done in the area of budgeting. Kavoi, (2011) did a study on Factors that influence the achievement of budget targets – A case of the University of Nairobi. He found that the factors that influence the achievement of budgets include adequate planning and accurate projections, Bureaucracy in purchasing hinder units to affect their budgets and Clear policies regarding resource utilization influence budget targets. A study by Kigochi, (2008) on operational budgeting challenges in the Insurance Industry in Kenya found the following as the challenges of operational budgeting; Inability to achieve value for new business, time constraints, desire for comfort budget, lack of continuity in the committee, competence levels by budget team, and cost fluctuations. Mungai (2009) found that good budgetary practices are crucial for success of an organization.

Although a number of studies have been done in the area of budgeting none of these studies have focused on the water sector in Kenya. In fact, since the enactment of the Water Act 2002, the researcher is not aware of any study that has been done to determine the extent to which organizations in the water service sector have improved on their budgeting practices and if these modern practices have improved their performance. The question that this study sought to answer therefore is, is there a relationship between the budgeting practices and performance of organizations in the water sector in Kenya?

1.3 Objectives of the Study

The study sought to determine the following:

1. To what extent have the organizations in the water sector improved their budgeting practices?
2. To establish the relationship between budgeting practices and performance of organizations in the water sector.

1.4 Value of the Study

The role of a budget in implementing an organization's strategic plan cannot be overlooked. Budgeting practices therefore determine the effectiveness of the budget as an instrument of attaining the goals of the organization. The finding of this study will be of benefit to the interest groups discussed below.

Managers of water sector organizations will gain from this study since the findings of the study will form the basis of improving on the budgeting practices of these organizations. By comparing current budgeting practices with theoretical proposals, a basis for improvement will be established.

The development partners of these organizations will too find this study useful. Since donors are interested on how to best utilize their resources for maximum service delivery, the study findings will help them fine tune grant conditions and reporting requirements

The Government being a stakeholder in the water sector will benefit from the findings of this study by establishing whether the funds it allocates for various projects in the sector are adequate.

Scholars would be interesting in the extent to which budgeting practices deviate from theoretical proposals. They would be interested in analyzing the strength and weaknesses of these practices and possibly improve on the theoretical perspectives. All these will go a long way in adding to the body of knowledge.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter is divided into three parts. The first part covers the theoretical literature on budgeting and budgeting practices. The second part reviews some of the studies that have been done to determine budgeting practices and the last part is an analytical summary of the theory, empirical evidence and the gap that this proposal sought to fill.

2.2 Theoretical Approaches to Budgeting

This part reviews some of the theoretical literature on the concept of budgeting, its objectives and some of the recommended budgeting practices.

Henley et al (1992) defines Budgeting as “a process of measuring and converting plans for the use of real (i.e. physical resources) into financial values. It is the classic problem of how to add together quantities of apples and oranges into a meaningful economic measurement, the only practical way for everyday use is to express their economic values in terms of monetary costs and revenues. Through the process of budgeting the finance function provides the essential link between management planning and management control.”

Davila and Foster, (2005) define budgeting as a forward looking set of numbers which projects the future financial performance of a business, and which is useful for evaluating the financial viability of the business's chosen strategy or deciding whether changes to the overall plan are required. It is clear from these definitions that budgeting and planning are closely interlinked. Budgets represent the expression in financial terms of an organization's policies and constitute a statement of intent against which any achievements or for that matter failings can be compared.

Anthony (2007) categorizes organizational controls at three levels: strategic, management and operational. Strategic planning involves the use of information on the environment and information on internal service capabilities to determine the future strategy of the organization. Management control systems entail the implementation of strategy and the effective use of resources. In most organizations budgetary control is one of the most important forms of management control.

Budget practices involve all those processes and procedures that are followed in budget development and implementation. They include choice of budget approach, budget planning, budget control and review, performance measurement among others. Below is a breakdown of some of the budget practices

Contingency-based research proposes that there is no single approach to budgeting suitable for all businesses. Instead, the suitability of a particular approach is argued to be contingent upon characteristics of a business including its size, strategy, structure, and also management's perception of the uncertainty of the environment within which the business operates to best link the core functions of budgeting (coordination, motivation, outlook) (King et al., 2010).

Two approaches to budgeting have however been established; Traditional and Modern budgeting approaches.

2.2.1 Traditional verses Modern Approach to Budgeting

The traditional approach to budgeting usually focuses on a fixed timed period, usually coinciding with the company's fiscal year. Forecasting values remain static, and are not changed during the life of the budget-cycle (Nolan, 2005). Jones (1998) further emphasized the forecasting process as the core differentiating element between traditional and modern approach. The traditional incremental budgeting process begins with last year's continuing budget figures as the base budget. These numbers are then adjusted to reflect inflation, growth, changing conditions and other information gathered from financial forecasts for the upcoming fiscal year (Rivero and Emblemsvag, 2007). Goals according to which performance evaluation is completed are set top-down. Senior management for example sets performance objectives such as revenue and profitability ratios and imposes these goals on the rest of the organization (Narong, 2009).

Modern budgeting creates a rolling budget. A budget that is continuously updated so that the time frame remains stable while the actual period covered by the budget changes. As each month passes, a one-year rolling budget would be extended by one month so that there would always be a one-year budget in place (Hosack, 2006). Forecasting values remain flexible. Budgeted revenues and costs are adjusted during the budget period according to predetermined variances between the budgeted and actual output and revenue (Bryan, 2010).

The key difference in forecasting (Jones, 1998) is signified through the employed zero-based budgeting (ZBB) approach. According to Akten, Giordano and Scheiffele (2009), ZBB or just in-time budgeting, tries to counter today's extreme uncertainty. ZBB was developed during the inflationary environment of the mid-1970s to avoid the trap of only building up upon last year's budget, as traditionally done (Wilhelmi and Kleiner, 1995). Thereby the budgeting process begins from the ground up, as though the budget was being prepared for the first time. ZBB employs a "bottom-up" approach. This method starts with a base budget of zero and calculates the costs of running each program from scratch. On an annual basis, each cost associated with running a program must be justified before it can be included in the budget.

2.2.2 Budgetary Participation Approach

McLaney and Atrill (1999) argue that the value of the budget as a plan of what is to happen and as a standard against which actual performance will be measured, depends largely on whether and how skillfully this negotiation is conducted. When setting a budget, members of the organization are supposed to participate in defining explicit budgetary goals and to be involved in subsequent revisions to these goals with the management (Chalos and Poon, 2000). And when budget variance(s) occurs, participation and discussion among different levels of management facilitate and enable accurately identifying the possible reasons for such variance(s) and also the corresponding corrective actions to be taken. Therefore, budgetary participation (BP) refers to the involvement of managers in the budgetary process and their influence over the setting of budgetary targets (Subramaniam and Ashkanasy, 2001). Budgetary participation has always received considerable interest among researchers.

It can be regarded as a negotiation channel linking the communication especially between superiors and subordinates (Shields and Shields, 1998). Numerous scholars state that through budgetary participation, information sharing can be accomplished. For example, Poon (2001) states that budgetary participation provides a setting in which managers can exchange information and ideas to make budgetary planning and control more effective.

Nouri and Parker (1998), similarly, state that budget participation can facilitate information sharing between subordinate and superior during budget discussions. It was also found that the information communication between superiors and subordinates in budgetary participation includes both the upward communication from subordinate to superior and the downward communication from superior to subordinate. Regarding upward communication, a Principal-Agency-Framework with two primary actors, the principal and the agent, is always used in the accounting literature to explain the rationale of upward communication. The principal hires the agent to perform a task on behalf of the principal. In an organizational context, the principal is often portrayed as an executive who delegates responsibility for certain tasks to a subordinate who functions as an agent. Agency studies assume that the agent has “private” information about the agent’s area of responsibility which the principal (or superiors) cannot acquire and they often know more about their operational areas than do their superiors (Chow, Cooper, and Waller, 1988; Christensen, 1982; Merchant, 1981; Nouri and Parker, 1998; Young, 1985).

Shields and Young (1993) give evidence that the larger the differences in information levels between subordinates and superiors, the higher the probability that subordinates participate in the budgeting process.

Then, the information (on competitor actions, changes in consumer preferences, technological changes, and so on) is expected to be transferred from the subordinate to the superior. Finally, the potential gains for both parties, such as better information, resources allocation, job satisfaction etc. are fulfilled. Therefore, budget participation can mean that subordinates communicate their information to their superiors, resulting in better budgets and decision-making (Magner, et al., 1995; Nouris and Parker, 1998; Shields and Shields, 1998). On the other hand, downward communication is also examined. Several studies (Chenhall and Brownell, 1988; Kren, 1992; Magner et al., 1996) suggest that, through budgeting process, subordinates gain additional information from superiors and others including their duties, responsibilities, and expected results.

2.2.3 Budget Planning Approaches

Budgeting planning (budget-setting or budget preparation) refers to developing quantitative goals of the organization and preparing various budgets (Bodie and Merton, 2000). Business organizations use long-term budgets to lay out the planned financial goals and actions over periods ranging from two to ten years. Long term budgets are part of an integrated business strategy that along with production and marketing plans, guides the firm toward strategic goals (Gitman, 2006). So in this regard, long-term budgets are closely related to strategic plans.

Capital budgets, as one example of long-term budgets, are emphasized in financial accounting and budgeting literature. Capital budgeting is defined by Garrison et al. in 2003 as a type of investment decision-making used to describe how managers plan significant outlays on projects that have long-term implications. It details the planned expenditure for facilities, equipment, new products, and other long-term investments.

The complete capital budgeting process involves a series of actions, including generating investment project proposals consistent with the firm's strategic objectives, estimating after-tax incremental operating cash flows for the investment projects, evaluating project incremental cash flows, selecting projects based on a value-maximizing acceptance criterion, reevaluating implemented investment projects continually, and performing post audits for completed projects. Apart from long-term budgets, short-term budgets are used to guide day-to-day operations. Short-term (operating) budgeting specifies the acquisition and use of financial and other resources over a short-term period, which most often covers a 1- to 2-year (Garrison et al., 2003). The complete short-term budgeting in an organization consists of a number of separate but interdependent budgets preparations. The total package of those budgets is the Master Budget.

2.2.4 Budget Control Approaches

Control, briefly, is the process of ensuring that a firm's activities conform to its plan and that its Objectives are achieved (Drury, 1996). Accordingly, this process is commonly referred to as "budgetary control". When there is a difference between the actual amount incurred or realized, and the corresponding budgeted (forecasted) figure, there is budget variance (Garrison, et al., 2003). It can be further divided into favorable variances and unfavorable variances. For revenue items, if actual revenues exceed budgeted revenues, the variance is favorable; while if actual revenues are less than the budgeted figure, this is unfavorable budget variance. For cost items, an unfavorable variance refers to a variance that decreases operating income relative to the budgeted amount; a favorable variance, however, increases operating income relative to the budgeted amount.

Friedlob and Plewa (1996), pointed out that favorable budget variances are "generally signs of efficient, effective cost management and increases in net income". Conversely, unfavorable budget variances are results from inefficient, ineffective cost management, and reduced net income. Hirsch (1994) summarizes the causality of variance, subdividing this into four reasons. Firstly, variance can be the result of inaccurate data. Secondly, an upward change in costs (price standard) or production conditions (quantity standard) can result in an unfavorable variance. Thirdly, variance can be the result of random happenings (something that is unlikely to occur on an ongoing basis.) Finally, variance can be the result of especially efficient or inefficient operations.

The mechanism of budgetary control can be dated back to the contribution of Anthony (1965) on management control. In Anthony's framework, control activities in an organization are categorized into three major types, namely strategic planning, management control and operational control. Management control is the process that links strategic planning and operational control. Operational control is the process of ensuring that specific and immediate tasks are carried out while strategic planning is concerned with setting overall corporate strategies and objectives over the long-term.

Following Anthony's framework, Emmanuel et al. (1990) also state that four conditions must be satisfied before any process can be said to be controlled. Firstly, objectives for the process being controlled must exist. Without an aim or purpose control has no meaning. Secondly, the output of the process must be measurable in terms of the dimensions defined by the objectives. In other words, there must be some mechanism for ascertaining whether the process is attaining its objectives. Thirdly, a predictive model of the process being controlled is required, so causes for non-attainment can be identified and proposed corrective actions evaluated. Finally, there must be a capability for taking action so that deviations from objectives can be reduced.

2.3 Performance Measurement in the Water Sector

A performance indicator is a parameter or value derived from parameters which provides information about the achievements of an activity, a process or an organization with a significance extending beyond that directly associated with a parameter value.

Performance indicators do not have numerical values associated with them, until they are benchmarked or targets. Numerical values are determined by the responsible authority for the organization reporting the benchmark or establishing a target.

According to the Canadian water and wastewater Association, There are key characteristics of performance indicators .They involve the measurement of variables generated by analysis of the Service performed. The variables selected should be easily understood, readily measured accurately, readily available, and relevant to the indicator to be developed. Careful definition of the variables used may in some cases be necessary to ensure reproducibility or comparability.

Each variable used should: fit the definition of the performance indicator or context information it is used for; refer to the same geographical area and the same period of time or reference date as the performance indicator or context information it will be used for; be as reliable and accurate as the decisions made based on it, require. Indicators are typically expressed as ratios between variables. These ratios may be commensurate (e.g. %) or non-commensurate (e.g. \$/m³). In the case of non-commensurate ratios, the denominator should represent one dimension of the system (e.g. number of service connections; population served, total water main length; annual costs). This allows for comparisons through time or between systems.

In Kenya, WASREB has developed different scoring criteria and different weights have been adopted for each of the nine Key Performance Indicators which include: These are Water Coverage, Sanitation Coverage, Non-Revenue Water (NRW), Water Quality (Residual Chlorine and Bacteriological), Hours of Supply, Metering Ratio, Revenue Collection Efficiency (RCE), Staff Productivity and Operation and Maintenance Cost Coverage.

The scoring criteria largely correspond to the set Sector Benchmarks. However, scoring limits for some indicators have been defined more leniently than the set benchmarks to account for the current development stage of the sector. Different scoring limits for urban and rural WSPs have been adopted for the following indicators: NRW, Staff Productivity, Water and Sanitation Coverage. As the sector continues to develop, the scoring criteria will be reviewed to eventually match the sector benchmarks. Performance on or above the upper limit was awarded the maximum score while performance on or below the lower limit was awarded the minimum score of zero. Performance between the upper and lower limits was interpolated to determine the individual score. The aggregation of scores for all the nine indicators was then used to rank the WSPs. The maximum score under these criteria is 200 points.

2.4 Relationship between Budgeting Practices and Performance

Budgeting practices are thought to have some effect on the performance of a firm. Traditional accounting literature stresses the technical and rational roles of budgeting in organization. They view budgeting as a technical process to reflect and promote rationality in decision-making or as a technical device for coping with an objective world and to rationally foster efficiency, order, and stability (Covaleski, et al.1985). Accordingly, the rational level of budgeting decisions is based on the degree of information accuracy. Merchant (1981), however, states that the adoption of more sophisticated budgeting, including greater use of computer, technical staff, and financial modeling, enhances the correctness of budgetary plan, and in turn, results in higher performance in firms.

Psychological theories state that the opportunity given to subordinates through participation (the upward information sharing) in budgeting process can stimulate their motivation and commitment with budget-setting, which in turn improves the subordinates' job satisfaction and performance (Brownell and McInnes, 1986; Chenhall and Brownell, 1988; Kren, 1992). Shields and Shields (1998) also explore budgetary participation and performance relationship from a psychological aspect. They state that participation enhances a subordinate's trust, sense of control, and ego-involvement with the organization, which then leads to more acceptance of, and commitment to, the budget decisions, in turn causing improved performance.

Shields and Shields (1998) also explore budgetary participation and performance relationship from a psychological aspect. They state that participation enhances a subordinate's trust, sense of control, and ego-involvement with the organization, which leads to more acceptance and commitment to the budget decisions and hence lead to improved performance. Secondly, the Budgetary Participation and Performance relationship is also explained from a cognitive point of view. It states that through budget participation (the downward information sharing), subordinates gain information from superiors that helps clarify their organizational roles including their duties, responsibilities and expected performance which in turn enhances their performance (Kren, 1992; Shields and Young, 1993; Chong and Chong, 2002). Therefore, role ambiguity has an important cognitive factor is discussed extensively in existing budgeting literature. Role ambiguity is concerned with the lack of clear information regarding expectations, methods and consequences of the role (Chong and Bateman, 2000).

The empirical evidence of O'Connor (1995) suggests that budgetary participation is useful in reducing the role ambiguity of the subordinate. Jackson and Schuler (1985), Chenhall and Brownell (1988) also find that budgetary participation leads to lower role ambiguity which is associated with higher performance. They state that budgetary participation can clarify the role in the three areas (i.e. expectation, methods, and consequences). The expectations of the role will become clear when goals or budgets are set. Through participating, various methods of achieving role expectation can be examined to consider how the expectation can be achieved. Consequences of performance in the role can be clarified by participating in the planning and evaluation stage of budgeting.

2.5 Empirical Literature

Some of the studies that have been done to determine the budgeting practices are discussed below:

Voigt (2010) did a study on the theory of budgeting and its practical applications in German independent hotels. The study used a deductive research approach to solve the questions and thereby achieve the objectives. The study found that a significant difference exists between budgetary procedures defined theoretically and actually applied ones. Research determined further that expert-knowledge within management of independent hotels on the specific budgetary procedures, especially forecasting, is limited and primarily replaced through personal experience.

Hansen et al (2003) reviewed literature on Practice Developments in Budgeting: An overview and research perspective. He concluded that there is a considerable level of concern with budgeting in practice, indicating its potential for continued scholarly research. Although the two practice approaches (Activity based budgeting and beyond budgeting) suggest their own unique research opportunities, their common themes perhaps represent the most compelling areas for research. For example, both stress the importance of environmental turbulence as a dominant factor in budget design and use; both suggest that budgeting does not operate in isolation of many other organizational practices, and thus, should be studied as part of an organizational package; and both emphasize the importance of expanding budgeting research to incorporate the behavior of middle and lower level managers. These are under researched areas and deserving of more attention.

Clarkson et al (2009) on budgeting practices and performance in small healthcare businesses found that factors identified by contingency-based research are useful for predicting a business's budgeting practices. Specifically, they found the adoption of written budgets to be related to size and structure, and for businesses using written budgets, the extent of use is related to business structure, strategy and perceived environmental uncertainty. Finally, we find evidence of a relationship between budgeting practice and performance, the study on a sample of 144 responses from a survey of members of the Australian Association of Practice Managers (AAPM) also cited by Clarkson et al (2009).

Handley (2009) reviewed case studies on sector budget support in practice. He concluded the following: Traceability, earmarking and associated additional arrangements determine to a considerable extent how SBS works in practice.

These arrangements should be (but typically are not) developed on a negotiated basis, with a clear joint agenda to identify and address the underlying weaknesses which justify using traceability and any other additional requirements. This would facilitate a transition to full use of country systems without additional arrangements.

Kavoi (2011) did a study on Factors that influence the achievement of budget targets – A case of the University of Nairobi. He used descriptive study design and collected data from budget committee members and employees who had authority to incur expenditure. Data was analyzed using factor and descriptive analysis methods. The study found that budgets are used to control resource utilization; Budgets are used to reflect the direction the organization is moving in future. The study further found that the factors that influence the achievement of budgets include adequate planning and accurate projections, Bureaucracy in purchasing hinder units to effect their budgets and Clear policies regarding resource utilization influence budget targets.

Kigochi (2008) studied operational budgeting challenges in the Insurance Industry in Kenya. He used a descriptive survey design and studied all the 42 companies in the insurance industry. Data was collected using Self-administered drop and pick questionnaires and analyzed using descriptive statistics. The study found the following as the challenges of operational budgeting; Inability to achieve value for new business, Time constraints ,Desire for comfort budget, Lack of continuity in the committee, Competence levels by budget team, and Cost fluctuations. Other findings included the fact that All sampled companies had the operational budgets, Most companies had budget committee which included senior managers,

In most companies senior staff participated in the formulation of operational budgeting, Budgets were broken down on basis of time, and unit cost, Most companies prepared fixed and variable budgets, Operational budget used as means to forecast future and communicate to other levels of departments, Means of performance appraisal and motivation of staff, responsibility of approving budget was with the board, Modification of the budgets was also allowed. The study recommended that all units be involved in budget preparation and that enough time be allocated for budget preparation.

In a study on the Relationship Between budgeting practices and performance in Nairobi Oil Corporation Mungai (2009),found that Good budgetary practices is crucial for success of an organization and that budgetary process helps in monitoring efficacy of resource utilization and the productivity borne.

2.4 Summary of Empirical Literature

Budgeting Practices is thought to play an important role in performance of an organization, both financial and non-financial. Qi (2010) observes that the involvement of different levels of organizational members in budgeting process, budgetary participation will improve the competence of the top managers or unit managers in the areas of eight managerial activities (i.e. planning, investigating, coordinating, evaluating, supervising, staffing, negotiating, and representing).

Psychological theories state that the opportunity given to subordinates through participation (the upward information sharing) in budgeting process can stimulate their motivation and commitment with budget-setting, which in turn improves the subordinates' job satisfaction and performance. A study by Clarkson et al (2009) on budgeting practices and performance in small healthcare businesses found that factors identified by contingency-based research are useful for predicting a business's budgeting practices.

Locally, Kavoi (2011) found that the factors that influence the achievement of budgets include adequate planning and accurate projections, bureaucracy in purchasing hinder units to affect their budgets and clear policies regarding resource utilization influence budget targets. Kigochi (2008) found inability to achieve value for new business, time constraints, desire for comfort budget, lack of continuity in the committee, competence levels by budget team, and cost fluctuations as some of the challenges facing insurance industry in their budgeting efforts. Clearly, it is evident from the above review of literature that no study that the researcher is aware of has been done to determine the relationship between budgeting practices and performance of organizations in the water sector.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter provides a discussion of the outline of the research methodology that was used in this study. It focused on the research design, population of study, sample and sampling techniques, data collection methods and concluded with the data analysis and data presentation methods that were used in the study.

3.2 Research Design

The research design employed in this study was a cross sectional research design. Cross sectional research design is used when the researcher intends to study a particular event at one point in time. This study covered the 2010/2011 financial period and sought to determine the relationship between budgeting practices and performance of these organizations in that period.

3.3 Population of the Study

The population of the study consisted of Water Service Providers (WSP) in the water sector. Currently there are 75 WSPs classified as either rural or urban.

3.4 Sample

A well-developed sampling design plays a critical role in ensuring that data is sufficient to draw the conclusions needed. A sound, socially or scientific based decision must be based on accurate information. In this study, the researcher sampled 80% of the population i.e. 60 WSPs. The researcher believed that this number is representative of the organizations under study. Simple random sampling technique was used to allow for equal chance of selection.

3.5 Data Collection

Both primary and secondary data was used in this study. Primary data was used to measure the extent of budgeting practices among organizations in the water sector. A structured questionnaire was administered; the drop and pick method was used to collect data as well as use of email. The structured questions were used in an effort to conserve time and money as well as to facilitate in easier analysis as they are in immediate usable form; while the unstructured questions were used so as to encourage the respondent to give an in-depth and felt response without feeling held back in revealing of any information. The questions were based on Likert Scale whereby respondents were required to state whether they strongly agree, agree, neither agree nor disagree, disagree and strongly disagree. Budget Practice Index (BPI) was generated from this data. Secondary data was used to measure performance of the sampled organizations. Performance was measured on the basis of revenue collection efficiency. This data was obtained from the impact report published by WASREB.

3.6 Data Analysis

3.6.1 Measurement of Variables

Five variables were compared in this study; Four aspects of Budgeting Practices and Financial Performance. Budgeting practices was measured by budgeting practice indices that was generated from questionnaires distributed to respondents. Budgeting Practice index is a measure of the extent to which an organization applies modern budgeting practices as suggested in theory. These practices included budgeting approach adopted, budget planning, budget control and budget participation. The questions were based on a scoring system on scale of 1-5 where a score of 1 means the respondent strongly disagrees on whether the organization followed a particular element of budgeting practice. Score 2 meant the respondent disagreed, 3 meant he/she neither agreed nor disagreed, 4 meant the respondent agreed while score 5 meant the respondent strongly agreed that that particular budgeting practice was followed.

Financial performance was measured using the efficiency with which these organizations collected their revenues. These were found in the annual WASREB impact reports.

3.6.2 Model Specification

The study examined the relationship between budgeting practices and financial performance of organizations in the water sector. The following regression model was used in the study:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + U$$

Y = Revenue Collection Efficiency (RCE)

X_1 = A measure of the extent to which the organizations embrace modern budgeting approaches

X_2 = A measure of the extent to which organizations embrace budget planning

X_3 = A measure of the extent to which organizations embrace Budget Control

X_4 = A measure of the extent to which staff members are involved in budgeting

U = Error term

$\beta_{0, 1, 2, \dots, 4}$ are parameters of the estimate

The model makes use of correlation, regression and analysis of variance (ANOVA) to analyze the relationship between the variables.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSIONS

4.1 Introduction

This chapter looks at data analysis, findings and summary of significant findings in the study. This study examined the effect of budgeting practices on the financial performance of water service companies in Kenya. The population of study consisted of 75 water companies. Data was collected from a sample of 60 companies. Questionnaires were filled in by top officers in the finance department. All the 60 companies sampled responded. The study therefore comprised 80% of the population.

In this study, budgeting practices was measured on the basis of four aspects namely: budgeting approach, budget planning, budget control and budgetary participation. Elements of each aspect of budgeting were then identified. On a scale of 1-5, (where 1-strongly disagree, 2-Disagree, 3-Neither Agree nor Disagree, 4 -Agree and 5-Strongly agree) where respondents were asked to tick appropriately the extent to which the company complied with the listed elements of budgeting practices.

4.2 Findings on General Budgeting Practices

The study used four aspects of budgeting practices that included budgeting approach, budget planning, and budget control and budget participation.

4.2.1 Budgeting Approach Practices

The study identified five key elements of budgeting approach namely: use of activity based budgeting, beyond budgeting, extent of use of previous budgets in preparation of current year budgets, use of zero based budgets, and extent of use of bottom-up approach.

Table 4.1: Results on the extent of use of various budgeting approaches

	Budgeting Approach	Mean Score	S.D
1	We use Activity Based Budgeting	4.0	1.3
2	We use Beyond Budgeting Approach	2.3	0.9
3	We don't use last year's budget as the base budget in preparing current budget	1.7	1.2
4	We prepare zero based budgets	3.3	1.3
5	We use bottom-up approach in budgeting	3.5	1.3

4.2.2 Budget Planning Practices

The study identified and used five elements of budget planning. These included preparation of capital budgets, preparation of budgets from strategic plans, preparation of short term budgets, process of development of master budget, and process of evaluation and selection of capital projects.

Table 4.2: Results on Budget Planning Practices

	Elements of Budget Planning	Mean Score	S.D
1	We Prepare Long Term Budgets(Capital Budgets)	3.9	1.3
2	We prepare Budgets from Strategic plans	4.3	1.0
3	We prepare short term budgets to guide day to day operations	4.2	1.0
4	We develop master budget from separate interdependent budgets	4.2	1.0
5	Capital projects are evaluated and selected based on value maximizing acceptance criterion	3.8	1.3

4.2.3 Budget Control Practices

The elements of budget control practices used in this study included quarterly review of budgets, analysis of budget variances, correction of budget variances, approval of budgets before incurring expenditure and approval of budget by board of directors before budget implementation.

Table 4.3: Results on Budget Control Practice

	Elements of Budget Control	Mean Score	S.D
1	We review budgets quarterly	3.9	1.2
2	We analyse Budget Variances	4.5	0.70
3	We take corrective Measures on Budget Variances	4.2	0.90
4	Before Expenditure is incurred, it is approved by a budget Officer	4.0	1.3
5	Before budgets are implemented, they are approved by the board of directors	4.7	1.0

4.2.4 Budgetary Participation Practices

The study identified the extent to which members of the company participate in budgeting process on the basis of five elements that included whether members of the company participate in defining budget goals, whether budget estimates come from functional heads of department, whether budget estimates are negotiated between subordinates and superiors, whether members of the company participate in budget variance analysis and propose corrective measures and whether members of the organization participate in revision of budget goals

Table 4.4: Results on Budgetary Participation

	Elements of Budgetary Participation	Mean Score	S.D
1	Members of the organization participate in defining budgetary goals	4.1	1.2
2	Budget estimates come from functional heads of departments	4.2	1.3
3	Budget estimates are negotiated between subordinates and superiors	3.6	0.9
4	Members of the organization participate in budget variance analysis and propose corrective measures	2.8	1.0
5	Members of the organization participate in revising budgetary goals	3.8	0.8

4.3 Findings on Budgeting Practices and Financial Performance (Revenue Collection Efficiency)

4.3.1 Budgeting Practices of Specific Water Service Providers

The study sought to determine the effect of budgeting practices on the financial performance of water service providers in Kenya. Four aspects of budgeting practices were studied namely; budgeting approach, budget planning, budget control and budgetary participation. For each aspect, a practice index which measures the extent to which the company embraced that particular aspect of budgeting was derived from an average score of all the elements in the questionnaire.

For example, Budgeting Approach Index (BAI) is an average measure of the extent to which the company embraced various budgeting approaches namely; Activity Based Budgeting, Zero Based Budgeting, among other elements listed in the questionnaire. This measurement is based on a scale of 1-5 (whereby; 1-Strongly Disagree, 2-Disagree, 3-Neither Agree nor Disagree, 4 -Agree and 5-Strongly Agree).

4.3.2 Financial Performance (Revenue Collection Efficiency)

The table below summarizes the data on revenue collection efficiency, Budget Approach Index, Budget Planning Index, Budget Control Index and Budget Participation Index of each water service provider. The table is summarized in appendix iv.

4.4 Results of Regression Analysis

In this study, the dependent variable is Revenue Collection Efficiency (RCE) while the independent variables are Budget Approach, Budget Planning, Budget Control and Budgetary Participation Practices. β_1 , β_2 , β_3 and β_4 are parameter estimates that measure the effect of budget approach practices on the revenue collection efficiency. The results of regression analysis are summarized in the tables below

Table 4.5a: Results of the Regression Analysis

Model	Unstandardized Coefficients		P-value
	$\beta_{1,2...4}$	Std. Error	
(Constant)	95.116	14.386	0.000
X ₁	-.901	2.051	0.651
X ₂	.781	1.799	0.001
X ₃	-2.206	1.901	0.485
X ₄	1.099	1.963	0.001

Table 4.5b: Results of the Regression Analysis

R Square	Adjusted R square	Standard Error of the Estimate	P-value
0.47	0.29	10.59544	0.002

4.5 Test of coefficients

The coefficients X_2 and X_4 are significant because the p-values (0.001) are less than 0.05 which is the level of significance. However the coefficients X_1 and X_3 are insignificant because their p-values (0.651 and 0.485 respectively) are greater 0.05 which is the level of significance in the study. This information is summarized in Table 4.5a above.

The p-value of the entire model is 0.002 which is less than the level of significance (0.05). The model is therefore significant at 95% level of significance. The model has an R-square of 0.47 showing that 47% of the changes in the RCE can be attributed to the four aspects of budgeting practices.

4.6 Summary of Findings and Interpretations

4.6.1 Budgeting Practices

Four aspects of budgeting were studied. In the budget approaches, the study found that on average, use of activity based budgeting scored 4.0, beyond budgeting scored 2.3, use of previous year's budget scored 1.7, use of zero based budgets was at 3.3 while bottom-up approach to budgeting scored 3.5. The study thus found that on average, water service companies use activity based budgets and bottom up approach in budgeting. Use of beyond budgeting approaches and zero based budgets are still not embraced by most companies in this sector.

In budget planning practices, the study found that use of capital budgets scored a mean of 3.9, use of strategic plans in budgeting, short term budgets and use of inter dependent budgets in preparation of master budgets scored above a mean of 4.0. Evaluation and selection of capital projects had a score of 3.8. The study thus found that most of companies in the water service sector prepare long term budgets, prepare budgets from strategic plans, prepare short term budgets, develop master budgets from separate interdependent budgets and also evaluate and select capital projects based on value maximizing acceptance criterion.

The elements of budget control practices used in this study included quarterly review of budgets, analysis of budget variances, and correction of budget variances approval of budgets before incurring expenditure and approval of budget by board of directors before budget implementation. On average, quarterly review of budget scored 3.9, analysis of budget variance scored 4.5, corrective measures on budget variances had 4.2, approval of budget before incurring expenditure scored 4.0 and approval of budget by board of directors scored 4.7. In general, the study found that on average, companies in the water service sector embrace budget control practices

The extent to which members of the company participate in budgeting process was measured on the basis of five elements that included whether members of the company participate in defining budget goals, whether budget estimates come from functional heads of department, whether budget estimates are negotiated between subordinates and superiors, whether members of the company participate in budget variance analysis and propose corrective measures and whether members of the organization participate in revision of budget goals.

In this study, participation of members in defining budgetary goals scored a mean of 4.1, meaning that most companies in the water service sector allow members of the company to participate in defining budgetary goals. Other areas of budgeting where members participate in budgeting are negotiation of budget estimates with superiors with a mean score of 3.6 and revision of budgets scoring 3.8. The study finds that on average, members of the company are not involved in budget variance analysis and proposal of corrective measure. The regression equation is summarized below:

4.6.2 Financial Performance of Water Service Providers

While there are many financial performance indicators, the study focused on the revenue collection efficiency. The efficiency with which these companies collect revenues has a direct linkage with the budgeted revenue. The study used secondary data on revenue collection efficiency of water service companies. This data was obtained from the WASREB impact report for the financial year 2010/2011 which is the most current report.

According to WASREB, Revenue Collection Efficiency is defined as the total amount collected by a water service provider compared to the total amount billed in a given period. It is considered an important performance indicator of water service providers since it gives an indication of the effectiveness of the revenue management system in place and consequently the resources available to the water service provider.

The study found that of the 60 sampled water service providers, Kyeni is the most efficient in revenue collection at 116% followed by Limuru at 113% and Olkalou at 111%. Water service providers that reported a score of over 100% efficiency included isiolo, Kiambu, Kibwezi, Kapenguria among others. The least efficient water service providers in revenue collection are Gulf at 52% and Amatsi at 59%.

4.6.3 Results of Regression Analysis

The study sought to determine the relationship between Revenue Collection Efficiency and budgeting practices among water service providers. Four aspects of budgeting practices were studied namely: Budgeting approaches adopted, budget planning practices, budget controls and participatory budgeting. Regression analysis was used to determine the relationship.

The study found that budget planning and participation of members in budgeting has a positive effect on revenue collection efficiency. Specifically, an improvement in budget planning and budgetary participation by 1 percentage point increases the revenue collection efficiency by 0.781% and 1.099% respectively. The p-value of these coefficients (0.001 each) is significant at 5% level of significance. The study also found that budget approach and budget control practices though have a negative effect on the revenue collection efficiency, the effect is insignificant since the p-value of the coefficient (0.651 and 0.485 respectively) is above the 5% level of significance.

The model has an R square of 0.47 meaning that 47% of the changes in the revenue collection efficiency are explained by changes in budgeting practices namely budget approaches, budget planning, budget control and participatory budgeting. The model is significant at 5% level of significance since the F-value is 0.002. The regression model for the study is summarized below:

$$Y=95.116-0.901X_1+0.781X_2-2.206X_3+1.099X_4 \quad \text{Where;}$$

Y = Revenue Collection Efficiency

X₁=Extent to which modern budgeting approach is embraced

X₂=Extent to which budget planning is embraced

X₃= Extent of budget control practices

X₄= Extent of budgetary participation by members of the organization

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a summary of the study, conclusion and recommendations. It also makes suggestions for further research in this area

5.2 Summary of the Study

Budgeting is the cornerstone of the management control process in nearly all organizations, but despite its widespread use, it is far from perfect. (Hansen et al, 2003). Practitioners express concerns about using budgets for planning and performance evaluation. Henley et al (1992) defines Budgeting as “a process of measuring and converting plans for the use of real (i.e. physical resources) into financial values. It is the classic problem of how to add together quantities of apples and oranges into a meaningful economic measurement, the only practical way for everyday use is to express their economic values in terms of monetary costs and revenues. Through the process of budgeting the finance function provides the essential link between management planning and management control.”

This study sought to determine the relationship between budgeting practices and financial performance of the water service providers in the water sector in Kenya.

In this study, four aspects of budgeting practices were examined. They included budgeting approaches adopted, budget planning, budget controls in place and the extent of involvement of members of staff in budgeting. The study used cross sectional research design and sampled 60 water service providers out of a population of 75 water service providers. Financial performance was measured using the revenue collection efficiency of these water service providers as contained in the WASREB report of 2010/2011 financial period which is the most recent report. The study found that that on average, water service companies use activity based budgets and bottom up approach in budgeting. Use of beyond budgeting approaches and zero based budgets are still not embraced by most companies in this sector.

The study also found that most of companies in the water service sector prepare long term budgets, prepare budgets from strategic plans, prepare short term budgets, develop master budgets from separate interdependent budgets and also evaluate and select capital projects based on value maximizing acceptance criterion.

In general, the study found that on average, companies in the water service sector embrace budget control practices; however, on budgetary participation among members of staff, the study found that on average members of staff are not involved in budget variance analysis and in the proposal of corrective measures.

Finally, results of regression analysis found that budget planning and participation of members in budgeting has a positive effect on revenue collection efficiency of water service providers while budget approach and budget control practices though have a negative effect on the revenue collection efficiency, the effect is insignificant.

5.3 Conclusion

The study sought to determine the relationship between budgeting practices and financial performance of water service providers in Kenya. A sample of 60 companies was studied using a cross sectional research design. Using regression analysis, the study concluded that while budget planning and participation of members in budgeting has a positive effect on revenue collection efficiency of water service providers, budget control practices as well as budget approach adopted by companies in the water service sector have insignificant effect on the revenue collection efficiency of these companies.

This study concludes that aspects of budgeting practices such as budget planning and budgetary participation have a positive significant effect on the revenue collection efficiency of water service providers while budget control practices and budgeting approach used have no significant effect on the revenue collection efficiency of the water service providers.

5.4 Limitations of the study

Due to time and resource constraints the findings and conclusions of this study are limited on the basis of the factors discussed below.

The population of the study consisted of 75 water service providers that are spread across the country. The researcher was however capable of collecting data from a sample of 60 water service providers.

The second source of the study limitation is the data source. Primary data was collected with the help of structured questionnaires where respondents were asked the extent to which they agree with the budgeting practices adopted by the water service providers. Clearly the findings of this study are affected by the personal biases of the respondents.

The research design adopted was a cross-sectional design which covered the financial year 2010/2011. The results of this study therefore are limited to the period of study.

The study adopted a regression model to determine the relationship between revenue collection efficiency of these companies and their budgeting practices. The researcher acknowledges that there could be other better models to be used in the study.

In this study, financial performance was measured by only one variable i.e. revenue collection efficiency of the water service providers. Ideally, many other variables could have been used to measure financial performance.

5.5 Recommendations

5.5.1 Policy recommendations

Companies in the water service sector should as a way of increasing their revenue efficiency, embrace as much as possible modern approaches in budget planning and include as much as is necessary the involvement of members of staff in the formulation of budgets and goals, and negotiation of budget targets among other elements of budgetary participation.

5.5.2 Recommendations for further research

This study sampled a total of 60 water service providers. The population of study is 75 water service providers. The researcher recommends that the same study be repeated but this time all the water service providers should be included in the study.

In this study, cross-sectional research design was used in which data on budgeting practices was collecting only for the current year and compared with the financial performance of the financial year 2010/2011. The researcher suggests that further research be done using longitudinal research design so that the relationship is tested in a period of more than one year.

The study also restricted financial performance to the efficiency in revenue collection. The researcher suggests further research in the same area using a different financial performance indicator.

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APPENDICES

(i) Letter of introduction from the University of Nairobi



UNIVERSITY OF NAIROBI
SCHOOL OF BUSINESS
MBA PROGRAMME

Telephone: 020-2059162
Telegrams: "Varsity", Nairobi
Telex: 22095 Varsity

P.O. Box 30197
Nairobi, Kenya

DATE: 29-08-2013

TO WHOM IT MAY CONCERN

The bearer of this letter SAMWEL GITAU MBUGUA

Registration No. D61/72998/2012

is a bona fide continuing student in the Master of Business Administration (MBA) degree program in this University.

He/she is required to submit as part of his/her coursework assessment a research project report on a management problem. We would like the students to do their projects on real problems affecting firms in Kenya. We would, therefore, appreciate your assistance to enable him/her collect data in your organization.

The results of the report will be used solely for academic purposes and a copy of the same will be availed to the interviewed organizations on request.

Thank you.


PATRICK NYABUTO
MBA ADMINISTRATOR
SCHOOL OF BUSINESS



(ii) List of water sector organizations

1. Nairobi Water and Sewerage Company Limited (WSC)
2. Mombasa WSC
3. Eldoret WSC
4. Nakuru WSC
5. Nakuru Rural WSC
6. Thika WSC
7. Nzoia WSC
8. Western WSC
9. Nyeri WSC
10. Kirinyaga WSC
11. Mathira WSC
12. Kisumu WSC
13. Kilifi WSC
14. Embu WSC
15. Kericho WSC
16. Chemosit WSC
17. Gusii WSC
18. Nanyuki WSC
19. Malindi WSC
20. Kwale WSC
21. Nyahururu WSC
22. Garissa WSC
23. South Nyanza WSC
24. Murang'a WSC
25. Tavevo WSC
26. Meru WSC
27. Siboi WSC
28. Ololaiser WSC
29. Machakos WSC
30. Kikuyu WSC

31. Isiolo WSC
32. Ruiru Juja WSC
33. Mavoko WSC
34. Limuru WSC
35. Kitui WSC
36. Amatsi WSC
37. Kiambu WSC
38. Mikutra WSC
39. Eldama Ravine WSC
40. Lodwar WSC
41. Lamu WSC
42. Karuri WSC
43. Nol Turesh WSC
44. Naivasha WSC
45. Olkejuado WSC
46. Mandera WSC
47. Kiambere Mwingi WSC
48. Kapenguria WSC
49. Kibwezi WSC
50. Nyanas WSC
51. Loitoktok WSC
52. Narok WSC
53. Yatta WSC
54. Makindu WSC
55. Olkalou WSC
56. Iten Tambach WSC
57. Maralal WSC
58. Kapsabet Nandi WSC
59. Runda WSC
60. Rumuruti WSC
61. Kiamumbi WSC

62. Moyale WSC
63. Wote WSC
64. Gulf WSC
65. Namanga WSC
66. Nithi WSC
67. Kyeni WSC
68. Othaya Mukurweini WSC
69. Muranga South WSC
70. Meru WSC
71. Githunguri WSC
72. Tetu Aberdare WSC
73. Nyandarua WSC
74. Matungulu Kangondo WSC
75. Embe WSC

(iii) Questionnaire

SECTION A: GENERAL INFORMATION

1. Name of the organization
2. Category of Organization.....
3. Designation of Officer.....
4. What percentage of your Budget is Funded by:
5.
 - i. Donors.....
 - ii. Government.....
 - iii. Other(s).....
6. For how long have you been in Operation?

SECTION B: BUDGETING PRACTICES

On likert scale of 1-5 where; **1-Strongly Disagree, 2-Disagree, 3-Neither Agree nor Disagree, 4-Agree and 5 Strongly Agree**, mark the extent to which you agree with the following:

A. Budgeting Approach

	Approach	1	2	3	4	5
1	We use Activity Based Budgeting					
2	We use Beyond Budgeting Approach					
3	We don't use last year's budget as the base budget in preparing current budget					
4	We prepare zero based budgets					
5	We use bottom-up approach in budgeting					

B. Budget Planning

	Elements of Budget Planning	1	2	3	4	5
1	We Prepare Long Term Budgets(Capital Budgets)					
2	We prepare Budgets from Strategic plans					
3	We prepare short term budgets to guide day to day operations					
4	We develop master budget from separate interdependent budgets					
5	Capital projects are evaluated and selected based on value maximizing acceptance criterion					

C. Budget Control

	Elements of Budget Control	1	2	3	4	5
1	We review budgets quarterly					
2	We analyse Budget Variances					
3	We take corrective Measures on Budget Variances					
4	Before Expenditure is incurred, it is approved by a budget officer					
5	Before budgets are implemented, they are approved by the board of directors					

D. Budgetary Participation

	Elements of Budgetary Participation	1	2	3	4	5
1	Members of the organization participate in defining budgetary goals					
2	Budget estimates come from functional heads of departments					
3	Budget estimates are negotiated between subordinates and superiors					
4	Members of the organization participate in budget variance analysis and propose corrective measures					
5	Members of the organization participate in revising budgetary goals					

(iv) Summary of data on RCE, BAI, BPLI, BCI and BPAI

No.	Water Service Provider	(Y)RCE (%)	X ₁ (BAI)	X ₂ (BPLI)	X ₃ (BCI)	X ₄ (BPAI)
1	Nairobi	76	3.2	3.4	3.8	4.5
2	Mombasa	88	2.8	2.9	4.7	2.4
3	Eldoret	102	3.4	4.0	2.8	3.8
4	Nakuru	88	4.5	2.8	3.7	4.7
5	Githunguri	92	4.1	4.5	4.0	4.4
6	Nakuru	94	3.8	4.2	4.4	3.4
7	Thika	92	4.5	4.7	4.8	2.8
8	Nakuru Rural	94	4.7	2.8	3.8	4.1
9	Nzoia	100	2.9	3.7	4.7	4.1
10	Western	85	4.6	4.0	4.5	4.7
11	Nyeri	100	3.7	4.4	2.4	2.8
12	Kirinyaga	95	3.9	4.8	3.8	3.7
13	Mathari	80	4.0	2.7	4.7	4.0
14	Kisumu	94	3.7	2.9	4.4	4.4
15	Kilifi	95	2.8	4.5	3.4	4.8
16	Embu	80	4.2	2.4	2.8	2.7
17	Kericho	96	4.1	3.8	4.1	2.9
18	Chemosit	84	3.8	4.7	4.1	4.5
19	Gusii	95	2.9	2.8	4.5	2.8
20	Nanyuki	74	3.4	3.7	2.4	4.4
21	Malindi	94	2.9	4.0	3.8	4.3
22	Kwale	70	4.0	4.4	4.7	3.9
23	Nyahururu	94	2.8	4.8	3.7	3.2
24	Garissa	80	4.5	2.7	4.8	2.8
25	Sout Nyanza	96	4.2	2.9	2.2	3.4
26	Muran'ga	99	4.1	4.5	3.7	4.5

27	Tavevo	90	2.9	2.4	4.6	4.1
28	Meru	82	3.4	3.8	2.8	3.2
29	Sibo	89	2.6	4.7	4.6	3.7
30	Oloolaiser	85	4.3	2.8	4.1	2.5
31	Machakos	100	2.9	3.7	2.9	4.2
32	Kikuyu	87	4.5	4.0	3.1	4.4
33	Isiolo	104	2.8	4.4	2.8	4.8
34	Ruru Juja	98	4.6	4.8	4.2	2.7
35	Mavoko	80	3.0	2.7	4.1	2.9
36	Limuru	113	3.4	2.9	3.8	4.5
37	Kitui	95	4.7	4.5	2.9	2.4
38	Amatsi	59	2.8	2.4	3.4	3.8
39	Kiambu	101	4.7	3.8	2.9	4.7
40	Mikutra	85	2.8	4.7	4.0	4.8
41	Eldama ravine	97	3.7	2.8	2.8	4.6
42	Lodwar	86	4.0	3.7	2.8	3.7
43	Naivasha	78	4.4	4.0	4.2	3.9
44	Karuri	92	4.8	4.4	4.1	4.0
45	Olkejuado	85	2.7	4.8	2.7	3.7
46	Kiambere Mwingi	100	2.9	2.7	2.9	4.6
47	Kapenguria	102	4.5	2.9	4.5	3.7
48	Kibwezi	105	2.4	4.5	2.4	3.9
49	Narok	92	3.8	2.4	3.8	3.4
50	Yatta	85	4.7	3.8	4.7	4.7
51	Makindu	89	4.4	4.7	2.8	2.8
52	Olkalou	111	3.4	2.8	3.7	4.7
53	Iten Tambach	99	2.8	3.7	2.7	2.8
54	Maralal	99	4.1	4.0	2.9	3.7
55	Kapsabet Nandi	68	4.1	4.4	3.4	4.0
56	Wote	95	3.3	2.8	4.4	4.4

57	Gulf	52	2.9	3.4	3.4	3.4
58	Namanga	102	4.8	4.5	2.8	4.7
59	Nithi	80	2.7	4.1	4.1	2.8
60	Kyeni	116	2.9	3.8	4.1	4.7

Source: Data on RCE obtained from WASREB Impact Report, 2010/2011 Financial year