UNIVERSITY OF RWANDA

COLLEGE OF BUSINESS AND ECONOMICS

BUDGETING AS A MANAGEMENT TOOL FOR EFFECTIVE PERFORMANCE OF PUBLIC INSTITUTIONS IN RWANDA: A CASE STUDY OF UNIVERSITY OF RWANDA

BY

MUPENZI GASHUGI Celestin

SUPERVISOR: Dr. MUSEKURA Celestin

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DECLARATION

This research project report is my original work and has not been presented to any other institution. No part of this research project report should reproduce without the author's consent or that of the University of Rwanda.

Student Name: **MUPENZI GASHUGI Celestin**

Sign: Date:

Declaration by the Supervisor

This research report has been submitted with my approval as a supervisor at the University of Rwanda-College of Business and Economics.

Name: **Dr. MUSEKURA Celestin**

Sign: Date:

DEDICATION

To my beloved wife **UTAMURIZA Magnifique**, my child **Elmer GASHUGI RUDASUMBWA,** my family and relatives who always encouraged me to push on with the writing of this research project report whenever I contemplated giving up.

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I am grateful to the Almighty God whose guidance, provision and grace has enabled me to complete this project report. I also extend my sincere thanks to my wife who has been patient with me when I abandoned the household and left it in her sole care on some occasions in order to concentrate on this book. I also thank her for her financial and moral encouragement during the compilation of this proposal. I cannot forget to appreciate my supervisor **Dr. MUSEKURA Celestin** for his guidance and criticism during the production of this work. He greatly sacrificed his energy and time to ensure that I remain on the right track while writing this research project report. I also thank the management and staffs of the University of Rwanda who have been so supportive and patient with me and gave me time off duties to complete this proposal. Lastly, I am thankful the UR community, particularly my fellow students who have provided me guidance and constructive criticism and guidelines for the writing of this research.

TABLE OF CONTENTS

ABBREVIATIONS AND ACCRONYMS

ABB:	Activity Based Budgeting
ACCA:	Association of Chartered Certified Accountants
BB:	Beyond Budgeting
BBRT:	Beyond Budgeting Round Table
BCC:	Budget Call Circular
CIMA:	Chartered Institute of Management Accountants
CIPS:	Chartered Institute of Purchasing and Supplies
CPA:	Certified public Accountant
CVI:	Content Validity Index
EAC:	East African Community
EDPRS:	Economic Development and Poverty Reduction Strategy
EU:	European Union
ICAEW:	Institute of Chartered Accountants in England and Wales
MCS:	Management Control System
MINECOFIN:	Ministry of Finance and Economic Planning
MTEF:	Medium Term Expenditure Framework
PwC:	Price Waterhouse Cooper
SPSS:	Statistical Package for Social Sciences
SWOT:	Strengths, Weakness, Opportunities and Threats
UK:	United Kingdom
UR:	University of Rwanda
USA:	United States of America
ZBB:	Zero-Based Budgeting

LIST OF FIGURES

LIST OF TABLES

ABSTRACT

The study was conducted on the role of budgeting as a management tool for effective performance of public institutions in Rwanda using a case study of the University of Rwanda. The specific objectives of the study were to identify the purpose of Budgeting at University of Rwanda, assess the effectiveness of the budgeting process at University of Rwanda, to establish the contribution of budgeting to the performance of University of Rwanda and find out the problems encountered in the budgeting process at University of Rwanda. The sample size was 60 people who included staff who have direct involvement in the budgeting process at the University of Rwanda. However, only 49 were able to provide data because 11 out of the selected 60 lost the research instruments administered to them. Purposive sampling was used to identify and select these respondents. Primary data was collected by us of questionnaires, interview guides while secondary data was gathered by review of secondary data sources like reports, journals, articles, etc.

Study findings show (91.8%), that the purpose of budgeting at University of Rwanda is to enable effective resource allocation and also to encourage transparency in resource utilization.

In regard to budgeting effectiveness, the study established that (95.9%) University of Rwanda's budgeting is always strategically planned to fit into long term goals, follows a formal budgeting cycle, that is, identification of priorities, planning, formulation, implementation, monitoring and evaluation and budgeting is always based on the available cash revenues and government rules and regulations are respected.

It was also found that budgeting has greatly contributed to performance of the university. For example it ensure that staffs offer quality services (81.7%), facilitated an improvement in academic research and innovation at the university (69.3%), helped to equip UR with scholarly resources (95.9%), it increased scholarly publications (42.9%).

A positive Pearson correlation value of 0.827 with the level of significance (P=0.01) showed that there is a relationship between budgeting process and performance at the University of Rwanda. Problems affecting budgeting process at the University of Rwanda were also identified. It was established that (79.6%) University of Rwanda budgets were based on assumptions and guesswork. Lastly, findings show (77.5%) that some budgeting team members at UR lacked financial management skills.

CHAPTER ONE: GENERAL INTRODUCTION

1.0 Introduction

Budgeting is a crucial exercise without which a firm or business cannot achieve much (Yuen, 2007). It is a process of compiling budgets and subsequently adhering to them as closely as possible. It is a management tool that can be employed by an organization or firm to process information and make reports to management for effective financial performance.

1.1 Background

Today, organizations put emphasis on planning, budgeting and monitoring of performance. They develop strategies and make plan to deliver. Without a strategic planning process, the budgeting process is the only formal vehicle for strategic thinking and planning. When the budgeting process takes into account everyone's input and a thorough assessment of strengths, weakness, opportunities, and threats (SWOT), it becomes a true reflection of the organizational goals and work plan (David, 1999).

The budgeting system is a traditional way of managing and controlling companies (Bergstrand & Olve, 1996). Organizations use the budget to plan and co-ordinate the following year (Arwidi, 1991). To motivate employees, allocate resources and coordinate operations within an organization are, and have been, the primary purposes of the budget. Budgeting is aimed to facilitate responsibility distribution and is used to evaluate performance (Libby & Lindsay part 1, 2003).

Budgets as financial plans that set out anticipated revenues and estimated expenditures over a certain period of time have long been in use. Since their inception in the 1920's, every serious company has made them the central part of their planning and control system. Their ability to coordinate the allocation of resources through internal communication while at the same time serving as a means of expenditure authorization and evaluation base has made them the most important tool that is at managers' disposal today when running a company (Banovic, 2005).

A budget is a plan of financial operations embodying an estimate of proposed expenditure for a given period of time and proposed means of financing them. Budgets are financial expressions of plans prepared for an enterprise by managers during time period and for changing an organization and changing its physical facilities and capital structure

Severe criticism and dissatisfaction towards the Budget have grown during the last decades (Libby & Lindsay, part 1:2003). Companies that operate under rapidly shifting market conditions can make little use of the budget. The budget is slow to detect problems and since unpredictable circumstances cannot be included in the budget, it tends to already be out of date when it is supposed to be used. Further, the budget accused of being too time consuming to establish in relation to the benefits it is aimed to contribute with (Hansen, et al., 2003).

A survey made by Libby and Lindsay confirms that the budget does not facilitate adaption to changes in unpredictable environments. Hence, spending time on forecasting and planning the future can be completely useless (Hansen, et al., 2003). The research indicates that firms tend to adjust and improve the budget process and targets when meeting new challenges. In the article "Practice developments in budgeting: an overview and research perspective" by Hansen et al 2003 they refer to Bescos et al 2003 who describe that according to a survey of French companies, organizations that operate under unpredictable circumstances are most dissatisfied with budgets. Although budgets can be a useful control – tool for companies operating in stable environments, Hansen et al., 2003 state that for most businesses budgets are not useful.

Wallander, former executive for Handelsbanken in Sweden, criticized and abandoned the budget in the 1970's. He states in his work "Budget - an unnecessary evil", that organization could do better without budgeting. First, Wallander claims that budget is based on the principle; "same weather tomorrow as to day" (Wallander, 1999). The budget indicates an ongoing normal and continuous trend, thus the budget has no effect as a tool for forecasting. Secondly, if something unexpected occurs, the budget would be at no help either (Wallander, 1995). The budget rather stops people from taking actions. According to

Wallander, budgets are summaries based on guesses and assumptions about the future and exclude unpredictable events. In best case scenarios budgets are only a waste of resources, and in worst scenarios they are dangerous because they give deceitful information about where firms are heading.

Not only Wallander has criticized the budget for being inadequate and useless, several managers have acknowledged his statements. An optional management model called Beyond Budgeting is advocated by e g. Hope and Fraser (Hope & Fraser 2003, BBRT). In 1997 the organization Beyond Budgeting Round the Table (BBRT) was established by the scholars Hope and Fraser, authors of the book "Beyond Budgeting - How Managers Can Break Free from the Annual Performance Trap". Hope and Fraser state that it must be common dissatisfaction with the traditional budget in order to implement the Beyond Budgeting concept. The BBRT organization has established principles according to the concept Beyond Budgeting (BBRT). Multinational organizations such as Statoil and Borealis are firms that have abandoned the traditional budget and instead are managing successfully with the Beyond Budgeting concept (Bogsnes, 2009, Fraser & Hope, 2003). Today more than 100 companies have joined the organization since it started and they can be found widespread around the world. The members represent a wide range of industries and both smaller and multinational companies are participants (Bogsnes, 2009).

Scholars claim that organization adapts new management tools with ambition to improve their management and budget process (Akesson & Siverbo, 2009). In order to stay competitive, organization tries to emphasize on strategy goal instead of short term budget targets. Therefore additional tools, such as the balance scorecard, have been frequently adopted and implemented in organizations (Fraser & Hope). When a new model is added by the organization, the company tends to keep the old models as well. New models are often used in the same context simultaneously (Akesson & Siverbo, 2009). In the end, uncritically adding new management tools can rather lead to an overdose of managing and cause high costs and time consuming activities. Additional management tools are often measured on annual basis, like the budget, and similar problems that are associated with the budget can be the outcome (Frase & Hope, 2003).

1.2 Statement of the problem

The criticism towards the budget has been severe and optional models exist, for example the Beyond Budgeting concept, but the use of budget is still extensive in organizations today (Ekholm & Wallin, 2000, Libby & Lindsay, 2010). A survey presented by Libby and Lindsay (2007), made in 212 organizations in 2007, shows that a majority of managers agree that management through budgets is needed. In Rwanda Public institutions are organizations established by the government and given a mandate to provide facilities and/or services to the community or implement specific programs on behalf of the government. To execute their missions, pubic institutions receive funds from the government, sometimes topped up with the support from development partners. In return, public institutions are accountable to the government for the use of the funds allocated.

Since 2000, the government of Rwanda has embarked on the program of public financial management reform to reinforce rational use of public resources and enhance accountability and transparency in public financial management. Various institutions, rules and regulations have been put in place in different areas of management of public resources. The ultimate goal of all the reforms is that the limited resources should be used rationally based on priority needs. To facilitate the prioritization of needs and avoid duplication of activities by institutions, public institutions in Rwanda operating in the same sector have been grouped into sector planning and budgeting. MINECOFIN (2012) indicates that under the public financial management reforms, public institutions are required to prepare a budget aligned with the activities to be conducted within a financial year. The reforms stress that a budget must be executed within the fiscal year. The budget law states that the budget allocated to public institutions should be spent on activities indicated in annual action plans. Any re-allocation of funds from one budget unit to another or between different categories of activities within the unit is subject to the authorization from competent authority as provided by the law. Note that as the budget is passed by the parliament, it is a law and it is legally binding. Any balance at the end of the fiscal year is taken back from institution's account to the national treasury account and is interpreted as a failure to meet the planned objectives. Thus, there is an implicit tendency of measuring performance of an institution through the percentage level of budget execution. Unfortunate the budget to be allocated to the institution in the following fiscal year will likely be reduced. As a result, institutions tend to incur unnecessary spending at year end (MINECOFIN, 2012).

Despite various measures undertaken in the management of public resources, issues of mismanagement of public funds still persist. The Office of the Auditor General has been reporting, four years consecutively (2009, 2010, 2011 and 2012), an increase of the mismanagement in public institutions where various budget line items which were significantly under budgeted, the non-respect of the annual planning activities is a common practice. Inadequate planning was mentioned among the causes of the spread of that type of mismanagement practice in public institutions. Poor planning is indicated especially by unplanned tenders awarded, use of inappropriate tender methods, insufficient time allocated for tender publication, wasteful expenditure incurred, unauthorized expenditure, spending in excess of budget approved by parliament , etc (Auditor General Report 2012). The University of Rwanda had experienced negative effect caused by the budget. The negative effect could be that; necessary activities are not carried out because they were omitted in budgeting or funds has been allocated to activities which are not feasible in current year or to activities which were not planned, long outstanding of creditors, frequent request of budget reallocation, some budget lines are under or over budgeted, etc (, UR, Financial Report, 2013/2014). The purpose of this thesis is to analyze budgeting process, purposes and aim of the budget at University of Rwanda, identify causes of the failures noted, and make recommendations that can contribute to an improvement of budgeting processes and the achievement of national spending goals and objectives. The research ends with recommendations for improvement.

1.3 Research objectives

The present research is based on both general and specific objectives.

1.3.1 General objective

The objective of this research was to explore the effect of budgeting as a management tool for effective performance of public institutions using University of Rwanda with view of making recommendations.

1.3.2 Specific objectives

- To find out the purpose of Budgeting at University of Rwanda.
- To assess the effectiveness of the budgeting process at University of Rwanda
- To establish the contribution of budgeting to the performance of University of Rwanda
- To identify the problems encountered during preparation, implementation of budgeting at University of Rwanda

1.4 Research questions

- What purpose does Budgeting fulfill at University of Rwanda?
- How effective is the budgeting process at University of Rwanda?
- What is the contribution of budgeting to the performance of University of Rwanda?
- What are the problems encountered during preparation, implementation of budget at University of Rwanda?

1.5 Scope of the study

The research was conducted at the University of Rwanda and was limited to budgeting process and its effect on the performance of the university. There were many factors that do influence performance of the University of Rwanda. However this research was limited to budgeting as the independent determinants of one performance of University of Rwanda. This was because budgeting has been given limited academic attention.

1.6 Significance of the study

The outcome of this study will be useful to various people as shown below:

To University of Rwanda and other public institutions

This research study is vital to UR, the public and other public Institutions since it will be put in the University library to act as a reference manual for other research students thus contributing knowledge to the academic field.

To the student

The study will help the researcher to acquire a Masters Degree in Accounting and Finance from University of Rwanda since it is one of the partial requirements for the award.

To other researchers and academicians

The current research contributes to budgeting theory. This research draws on researcher's observation from the obviously ignored area of budgeting process in the University of Rwanda. It tries to fill the gap in previous literature about how budgeting affects performance.

1.7 Limitations to the study

This research faced some constraints which included the following:

All the available empirical studies related to this study were conducted in foreign firms/institutions. There is no available empirical study that has been conducted on Rwandan firms/institutions particularly the University of Rwanda which could be used as a baseline for this study. The researcher solved this problem by relying on published data from other countries that are related to the subject.

1.8 Structure of the study

The research is organized into five chapters. The first chapter contains the general background, chapter two focuses on review of literature, chapter three is the methodology, chapter four deals with data analysis and interpretation of results and chapter five covers the summary of major findings, conclusions and recommendations.

1.9 Chapter Summary

This chapter is the introduction of the study and it shows the background, statement of the problem, objectives, significance, scope and structure of the study. It creates and basis for the review of related literature.

CHAPTER TWO: REVIEW OF RELATED LITERATURE

2.0 Introduction

This chapter reviews the published and unpublished materials which have been compiled by other scholars in regard to budgeting and performance. Broadly, the chapter covers theoretical and empirical literature review, analysis of gaps in the empirical literature and the conceptual framework. The theoretical literature focuses on the definitions of budget and budgeting, institutional performance, purpose of budgeting, budgeting cycle, types of budgets, and characteristics of effective budgets, theories and approaches of budgeting, limitations and challenges of budgeting.

2.1 Theoretical Literature Review

2.1.1 Definition of budget and budgeting

The term budget, according to Arthur and Steven (2003), is derived from old French word "*bougette*" which means "to purse". It is a quantified financial plan for a forthcoming accounting period. In other terms, a budget is an organizational plan stated in monetary terms. However, The Chartered Institute of Management Accountants (2005) indicates that a budget is a quantitative expression of a plan for a defined period of time. It may include planned sales volumes and revenues, resource quantities, costs and expenses, assets, liabilities and cash flows. It expresses strategic plans of business units, organizations, activities or events in measurable terms. Therefore, from the above definition of budget, budgeting can be defined as the process of estimating costs, revenues, and resources over a specified period, reflecting a reading of future financial conditions, goals and resource needs of an organization.

As a management tool, the budget helps to aid the planning of actual operations by forcing managers to consider how the conditions might change and what steps should be taken now and by encouraging managers to consider problems before they arise. It also helps co-ordinate the activities of the organization by compelling managers to examine relationships between their own operation and those of other departments.

2.1.2 Purpose/functions of budgeting

In firms the budget has historically had a control function (Libby & Lindsay, part1, 2003), but today there are several objectives and purposes of the budget and the purposes vary among organizations. The reasons to why organizations have a budget are discussed by Smith (2007) and Ax, et al (2009). Drury (2004) also describes the main purposes of budgeting and this summarizes the common purposes stated from the earlier mentioned authors. According to Drury (2004), the main purposes of budgeting include planning, coordination, communication, resource allocation, performance evaluation, and responsibility distribution, establishing objectives, motivation, awareness and excitement as analyzed below:

Kaplan and Cooper (2005) argue that budgets are used to plan the future activities for organizations, that is, they are aimed to ensure that companies act in the best way in order to reach their goals. The planning purpose of budgets is used to plan for e.g. sales, purchase of material and for financial issues. Budgets contain information about how much resources are needed, which makes it possible to plan inflows and outflows of liquidity. When setting a budget, managers must predict the future and consider what changes and problems that may occur. This encourages managers to take actions before problems become reality. When plans are made in advance, the numbers of ad hoc decisions are reduced.

It has been argued that all units within an organization are, more or less, dependent on each other. Drury (2004) indicates that using a budget the units have to cooperate and compromise when it concerns limited resources. Every unit has their own budget and when these budgets are compiled, defects and inaccuracies are revealed. The budgets can be a way to discover coordination and cooperation problems. The budget is meant to make it possible to see the organization as a whole and try to solve conflicts. If departments have different ways of doing things, the budget makes the departments' compromise and work together, in order to make the budget for the whole organization complete. To reduce the risk of overcapacity within the company it is important to dimension the organization. By comparing budgets from departments they contribute to coordinate the size of production.

Budgeting also contributes to good communication through the exchange of information that takes place during the budgetary process. Kaplan and Cooper (2005) demonstrate that the budget process enables employees to communicate and share their ideas with other workers within the organization. Through discussions, employees can share their opinions and ideas with each other. For managers, the budget can be used to communicate and explain strategies and goals within the company to the employees. Furthermore it connects departments and gives insight and understanding for each other.

Additionally, scholars have demonstrated that budgets are aimed to facilitate resource allocation within companies, secure that the resources are being used effectively and that the right amount is distributed to the departments, which is crucial (Kaplan and Cooper, 2005). Units in the organization get different priorities. By distributing resources to units, resource allocation could be seen as a control tool. However, this sort of management requires that the managers take an active part in the budgetary process. They need to be well informed about the factual questions and have all concerning facts and details.

The budget functions as a control system used by management for performance evaluation. By setting budget targets the accountable are held responsible for reaching the objectives. Through a follow up of the budget, which means when the budget is being compared with the actual outcome, managers can be evaluated (Kaplan and Cooper, 2005). When follow-ups are made it is possible to discover variations from plan. Focusing and putting effort into deviations from plan is called "management by exception". By investigating the reasons to why the variations occur, actions can be taken. When budgets are made for shorter periods than a year, it can be valuable to make follow- ups every month and this enables changes if the actual outcomes vary from plan (Drury, 2004). Hence, this requires that the original budgets are distributed correctly over the year and that managers have made an effort to make budgets as realistic as possible for every month. Analyzing the budget every year and examine if there are any large variations can facilitate to more usable budgets in the future.

Gustafsson and Parsson (2010) indicate that budgets are often used for distribution of responsibility. A study proved that using a budget for distributing accountability is more important than using it as a control tool. During the budget process, responsibility is assigned to employees and it is vital that the managers clarify what is expected from the employees. A follow-up is being made to guarantee that the managers/employees have lived up to their commitment. It is a mutual commitment between the company and the accountable. The company contributes with the resources needed and the accountable are responsible for doing what they said they would do. Further, the budget is a tool to make managers responsible for their actions and to work in the best interest of the organization.

In organizations the budget is used for setting targets for managers. It is common that managers receive a bonus if they are able to "stick to the budget" and reach the goals. The objectives indicate what is important in the organization and what it is trying to achieve. Different targets for each unit within the organization are aimed to show what is expected of them. The objectives for the organization are being divided into goals for every department. When setting a budget for a decentralized organization it is a prerequisite that the main budget is divided into budgets for every unit. Drury (2004) states that there are three different kinds of targets for an organization: mission, corporate objectives and unit objectives. The mission of an organization is the reason to why the company exists; it describes in general terms, which the customers are, and what the concept of the company is. Corporate objectives are specific goals for an organization and the board of directors often establishes them, e.g. return on equity, market share etc. Unit objectives are the goals for the units in the company. While corporate objectives are seen as goals for the organization as a whole, unit objectives are made for different parts of the organization.

Budgets are used as a motivation tool. Sandino (2007) indicates that budgets can further influence the behavior and decisions of employees by translating business objectives, and providing a benchmark against which to assess performance. When employees are involved in the budget and target setting-process, they are often more motivated to try to achieve the goals. By setting clear and defined targets based on the budget, employees understand what is expected of them and can therefore feel more motivated. Though, this requires that targets are set on an appropriate level and that they are challenging but realistic. Meanwhile, if the targets are too difficult to achieve they could instead be de-motivating.

An effective budgeting process solves an organization's need to plan and consider how to confront future potential risks and opportunities by establishing an efficient system of control, a detector of variances between organizational objectives and performance (Anthony & Govindarajan, 2007). Budgets are considered to be the core element of an efficient control process and consequently vital part to the umbrella concept of an effective Management Control System (MCS) (Davila & Foster, 2007). King, Clarkson and Wallace (2010) demonstrated that, "as a forward looking set of numbers, budgets project future financial performance which enables evaluating the financial viability of a chosen strategy". In most organizations this process is formalized by preparing annual budgets and monitoring performance against budgets.

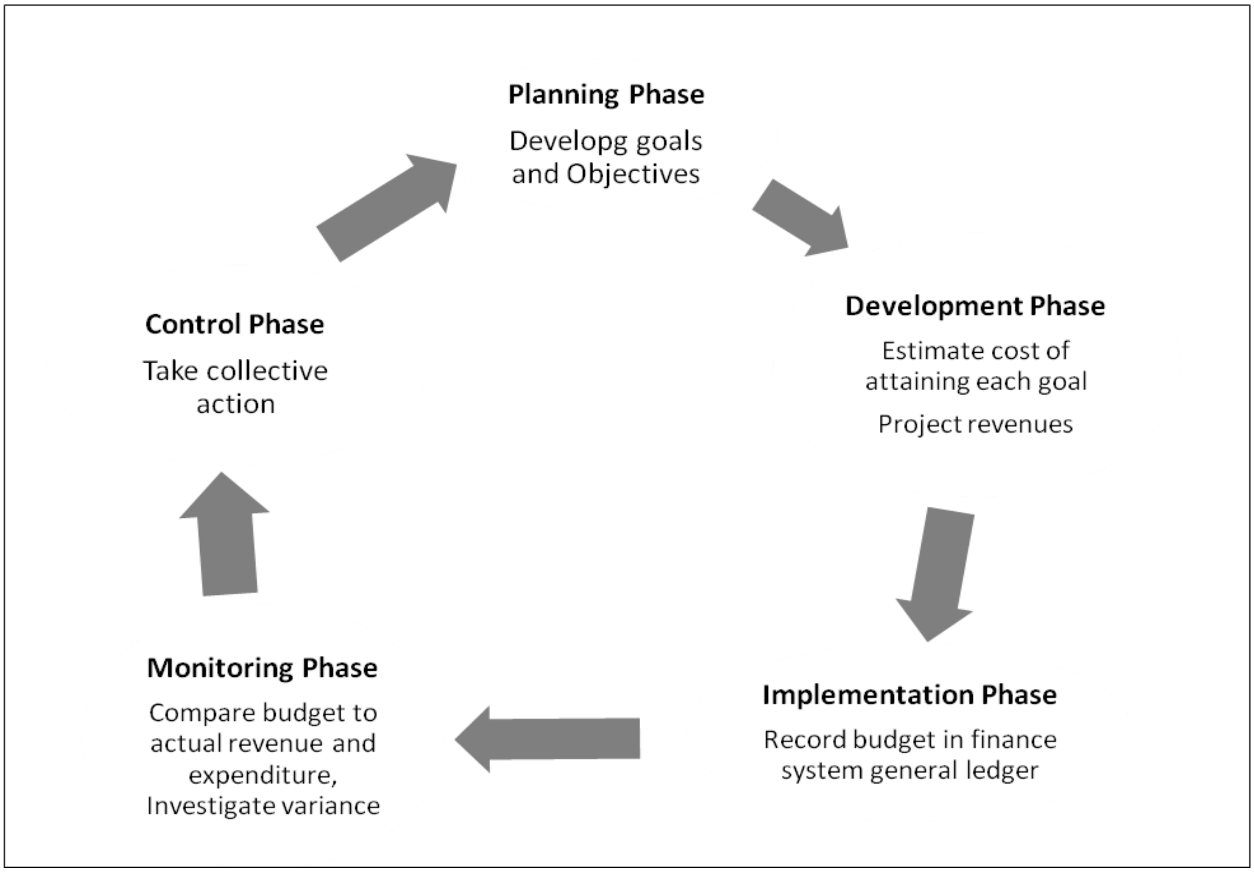
Budgets are therefore merely a collection of plans and forecasts. They reflect the financial implication of business plans, identifying the amount, quantity and timing of resources needed" (Innes, 2005). The implementation of budgetary procedures, i. e. the establishment of short to medium-term objectives, serves the purpose of providing estimates of future sales revenues and expenses, to provide short and long-term objectives for a coordinated management policy. Further benchmarks for management and task controls are provided by comparing actual results with budgeted plans and to take corrective actions if necessary (Fisher, Maines, Pfeffer & Sprinkle, 2002).

The main purposes of budgeting stated above are complemented by Ax, et al. (2009) who argues that budgeting promotes awareness and excitement. The authors argue that the budget creates awareness about the organizations goals and to make workers understand the "big picture". Personnel can understand how their work is contributing to the organization as a whole instead of just seeing their own unit. Additionally, the authors note that organizations use the budget as an incitement for the employees. The budget becomes a benchmark for what is a sufficient level to reach. By comparing the budget with the actual outcome, a reward for the accountable can be made.

2.1.3 The budget cycle

In most organizations, the budgeting cycle is comprised of five main phases: the planning phase development phase, implementation phase, monitoring and evaluation phase and the control phase (Jones, Parast & Adams, 2010). Figure 2.1 shows the detailed explanation of what activities are involved in each budgeting phase or process.

Figure 2.1: The Budgeting Cycle



Source: University of Colorado, 2009, Chapter 8, p. 5

2.1.3.1 Budget planning

This is the first phase of the budgeting cycle and it involves the setting of goals and objectives of the budget. According to Hosack (2006), a well-planned budget will focus on the primary goals and objectives of the organization and provide financial and programmatic adaptability - key ingredients to maximize sustainability. Within this phase, the budgeting team is selected and priority areas are identified. Targets for each priority area are set and the timeline for meeting each target are also set during the budget planning phase. Budget planners should have a familiarity with prior years' activities and the changes that are contemplated in the year(s) to come, particularly the objectives in the strategic plan, a desire to serve the organization as a whole rather than to lobby for a particular project and a knowledge of ordinary budgeting, whether on the personal or business level (Hosack, 2006). This process should involve all stakeholders to seek their contributions and support for the identified priorities.

2.1.3.2 Budget development

This phase involves estimating the costs of attaining each goal and budget preparation expenses. Sources of revenues are identified during this phase as well planning for alternate scenarios. Resource mobilization team is selected during this phase and cash flow forecast are made (Libby and Lindsay, 2003). The last activity under this phase is securing the approval of the budget by the executive board.

2.1.3.3 Budget implementation

Budgetary implementation consists of tracking and registering operations concerning appropriations and their uses (Faleti and Myrick, 2012). It should cover appropriations, apportionment, any increase or decrease in appropriations, commitments/obligations, expenditures at the verification/delivery stage, and payments. Adequate recording of appropriations, revisions in appropriations, transfers between appropriations, apportionment, etc. is a prerequisite for good budget implementation. The budget implementation plan should be updated regularly to take into account decisions concerning appropriations.

Accounting commitments/obligations is essential in keeping budget implementation under control. They provide the basis for budget revisions. Decisions to increase or decrease appropriations and the preparation of cash plans must take into account commitments already made. For internal management, spending agencies need to follow up accurately the orders and the contracts they have awarded (Faleti, and Myrick, 2012).

Accounting for budgetary expenditures at the verification stage is important to program and manage the organization. It gives elements for assessing costs, although these elements need to be completed with information on depreciation, inventories, etc. Expenditures at the verification stage show how far program and project implementation has progressed. Recording budgetary expenditures is also required for managing payables and contracts. It is a requirement of any accounting system that recognizes liabilities (McNally, 2002).

Budget implementation should be reviewed periodically to ensure that programs are implemented effectively and to identify any financial or policy slip-ups. The review of budget execution should cover financial, physical and other performance indicators. Cost increases due to inflation, unexpected difficulties, insufficient initial study of projects, and budget overruns must be identified so that adequate countermeasures can be prepared (Libby and Lindsay, 2003). A comprehensive midterm review of the implementation of the budget is needed, while the financial implementation of the budget should be reviewed monthly.

2.1.3.4 Budget monitoring

Monitoring and evaluation of budget implementation assumes critical importance. Fisher, et al. (2002), budget monitoring and evaluation helps in comparing actual revenues and expenditures and therefore determines the budget variance and in determining whether activities budgeted for have been effectively accomplished as predetermined. It aids in efficient steering of projects towards value-added results and provides evidence of impact. It also helps organizations in being realistic about their expectations. However, the author argues that the most critical argument for budgetary monitoring and evaluation is for ensuring transparency and accountability through organizational work, which forms the very essence of budget work.

2.1.3.5 Budget control

Budget control is the process of managing individual line items within a budget so that expenditures over and above the allocated amounts do not take place. This type of control is necessary in order to make sure that operational expenses do not exceed the projected revenue for the period, creating a net loss (Libby and Lindsay, 2003). There are several elements that go into the task of budget control, including the preparation of a realistic budget, monitoring income levels, and engaging in comparison shopping before actually executing any purchases.

The first step taken by organizations in effective budget control is the creation of a budget that is based on factual information regarding the revenue needed to operate the household or business effectively (Shastri and Stout, 2008). This means using information obtained from consumer markets regarding the prices of different goods and services that will be consumed each month. As part of the process, budget control involves making sure that fixed costs are accurately reflected within the budget, and any items that are considered flexible or floating are covered with a budget amount that reflects the standard and usual usage of the operation (Shastri and Stout, 2008).

Once the workable budget is in place, the process of budget control focuses on making sure that expenditures for any particular line item remain within the budgetary amount that applies. At times, this may mean reducing expenditure in order to prevent going over the budget on a particular line item (Wilhelmi and Kleiner, 1995). For example, if an organization household has a monthly budget of Rwf 500,000 for staff feeding and has consumed Rwf 300,000 by the second week of that monthly period, budget control will require that the organization find ways to spend no more than Rwf 200,000 on feeding for the remainder of the month. This may mean adjusting the consumption of different foods, substituting higher priced purchases with other foods that are less costly.

According to Yuen (2007), budget control usually involves attempts to not only keep within the budget, but to also save money when and as possible. Here, the goal is to purchase the items covered in the budget for as little money as possible, creating a small amount of surplus each month. In order to accomplish this, managers will compare prices on similar goods and services, eventually choosing the one that offers the best price while still providing an acceptable level of quality and service. For instance, a household may choose to migrate to a prepaid cellular provider that works out to half the cost of a current provider, based on the fact that the household only consumes a certain number of minutes per month (Banovic, 2005). Assuming the prepaid provider offers the same quality of service as the previous carrier, this budget control strategy reduces the cost for that budget line item for the month, making it possible to either allocate those savings to another line item, place the surplus into an interest-bearing account, or even enjoy a treat that is outside the scope of the monthly budget (Arwidi, 1991).

2.1.4 Components of a budget

The budgeting cycle, according to Horngren, Harrison, Bamber, Willis and Jones (2002), starts with the master budget: A set of budgeted financial statements and supporting schedules used for an entire organization. This comprehensive budget includes (1) the operating budget, (2) the capital expenditure budget, and (3) the financial budget. Weber determines operational planning as basis for any performance measuring activity (Weber et. al, 2009). The operating budget sets the expected revenues and expenses - and thus operating income - for the period. The capital expenditure budget presents the company's plan for purchases of property, plant, equipment and other long-term assets. The financial budget projects cash inflows and outflows, the period-ending balance sheet, and the statement of cash flows (Horngren et al. 2002). The components of the master budget include:

Operating budget: This contains the sales budget**,** inventory budget and purchases and cost of goods sold, operating expense budget and budgeted income statement.

Capital expenditures budget: It contains the amount used during a particular period to acquire or improve long-term assets such as property, plant or equipment.

Financial budget: This contains cash budget, budgeted balance sheet and budgeted statement of cash flows (Horngren et al., 2002).

The exhibit (Refer to Table 2.1: Types of Budget) shows the content of a typical operating budget and contrasts the operating budget with other types of planning documents: The strategic plan and the capital budget, the cash budget, and the budgeted balance sheet.

Table 2.1: Types of Budget

Strategic Plan	Operating Budget	Capital Budget
Revenue and expense for each major program	For organization as a whole and for each business unit	Each major capital project listed separately
Not necessarily by responsibility centers	Classified by responsibility centers	
Not as much detail as operating budget	Typically includes: Revenues; Production cost & cost of sales; Marketing expense; Logistics expense (sometimes); General and administrative; Research and development; Income taxes (sometimes); Net income.	
More expenses are variable	Expenses may be: Flexible; Discretionary; Committed	
For several years	For one year divided into months or quarters	
Total reconciles to operating budget	Total reconciles to strategic plan (unless revised)	Total project expenditures by quarters

Source: Anthony & Govindarajan (2007, 384)

The end result of the operating budget is the budgeted income statement, which shows expected revenues, expenses, and operating income for the period. The financial budget results in the budgeted statement of cash flows, which shows budgeted cash flows for operating, investing, and financing activities (Zimmermann & Henke, 1994). "The sales budget is the cornerstone of the master budget, because sales affect most of the other components of the master budget. After projecting sales and expenses, management can prepare the budgeted income statement. The income statement, the capital expenditure budget, and plans for raising cash and paying debts provide information for the cash budget, which feeds into the budgeted balance sheet. The budgeted statement of cash flows is usually the last step in the process" (Horngren, et al., 2002).

2.1.5 Qualities of an effective budget

An effective budget requires time and effort to develop and implement, especially for start-up organizations and those that have never prepared a budget before. Regardless of previous experience, every step of the budgeting process adds to the quality of the final document. According to Clifton (2008), an effective budget should have the following qualities:

Realistic: If a budget is to serve as a guide for fundraising efforts and program activities in the coming year, it must be well-reasoned and reflect current conditions. Unsubstantiated revenue projections and "wild guess" cost estimates will render a budget ineffective as a management tool.

Consistent: A budget must be consistent with short- and long-term strategic plans, and remain in line with the organization's mission.

Flexible: Budgets are based on a combination of facts and assumptions. If actual events and conditions vary from these assumptions, there must be opportunities to amend the budget to address revenue shortfalls and windfalls, and unexpected expenses. The budget should have contingency plans for when things don't go as well as expected, and when they go better than expected. This is simply good management, good stewardship of your supporters' money, and a major step toward fulfilling your mission.

Measurable: The basis on which the budget is created should be the same basis on which the books are maintained.

2.1.6 Budgeting Requirement in Rwanda

Budgeting in public institutions in Rwanda is legally binding. The organic budget law in Rwanda provides that in order to attain the macroeconomic stability, ensure a sustainable and stable national economic growth; budgets of public entities shall be prepared and implemented. Therefore, a request is made to the public entities to apply the principle of efficiency and optimal use of public property in preparation and implementation of their budgets. Furthermore, In its article 35, the organic law states that public entities shall prepare their expenditure estimates basing on national priorities, available resources and guidelines released by the Minister of Finance(Organic Law on State Finances and Property, 2006: Art 4 & 35).

2.1.6.1 The National strategic planning Framework

In recent past a lot of effort has been made to provide tools that serve as guide in strategic planning. These tools include; Vision2020, Long Term Investment Framework, Economic Development and Poverty Reduction, Sector strategic plan, Medium Term Expenditure Framework, Performance contracts just to mention a few . All these documents mentioned have common aspect of emphasizing the national priorities and projection for the future. The abovementioned programs and vision have to be implemented at institutional level for a time a bit longer. Therefore, pubic institutions strategic plans have to reflect these policies. In order to pull in the same direction, institutions have been grouped into sectors where institutions operating in the same sector of activity, for instance education sector, do the planning together. The ultimate purpose is to avoid duplication in the planning. However, the policy is not yet adopted satisfactorily because in addition to the issue of inadequate planning raised in this research, institutions still operate individually (Sector Review Report, 2010). Of course no surprise in that outcome because the sector planning can be effective only if its components are effective. This section focused on long term planning orientation situation, the next section will elaborate on short term budgeting.

2.1.6.2 Annual Budget Preparation

The preparation of annual budget is provided by the organic budget law on state finances and property in its article 28. The latter is complemented by the Ministerial regulating financial regulations article 19. It is provided that the annual budget for financial year N+1 is prepared in financial year N, and precisely starts at the end of its 1st quarter. In order to harmonize with the East African Community (EAC) fiscal year, the financial year in Rwanda changed from January-December to July 1st of year N to the end of June year N+1.

Budget preparation starts with a budget Call Circular (BCC) addressed by the Ministry of finance to all budget agencies providing guidelines and calendar for the budget preparation for the next financial year. The BCC comprises the ceiling envelope for each budget agency as well. The ceiling envelopes indicate the maximum amount each budget agency should not exceed in preparation of the budget for the coming year, and they are approved by the cabinet.

Basically, the budget is prepared in term of Medium Term Expenditure Framework (MTEF) as provided by the ministerial order on financial regulations. The MTEF comprises the estimated cost for the next three consecutive years to the current year. The first year of the MTEF generally is supposed to be more realistic because it is expected to be the budget of the next coming financial year. The rest two years estimated costs of MTEF are subject to revision. They serve for macroeconomic planning and stability (Ministerial Order No 002/07/0f 09/2007, art 12). Before budget preparation, institutions are generally required to review their previous year performance and do consultations at sector level. The assessment of performance over the previous year is based on budget execution. Evaluation of whether the first year of the MTEF has been executed as planned (National Planning, Budgeting and MTEF Guidelines, 2008:35). This is one of the motives that actually push some institution to spend more toward the end of the year in order to improve their budget execution performance, because apparently it can be easy to manipulate and decorate the results achieved if the execution is high rather explaining how the institution performed well when a big chuck of its budget was returned back to treasury.

2.1.6.3 Budget documentation

The financial regulations provide that the budget prepared by budget agencies must be submitted to the Ministry of finance before the deadline indicated in BCC. According to the Ministerial Order (No 002/07/0f 09/2007, Art 13), each budget submitted must be backed by various documents which include structure and cost of programs for 3 consecutive years, detailed estimates of the budget years, annual action plan, external financing if any, details of personnel and their grade (job classification) and cost assumptions.

2.1.6.4 Approval of Annual Budget

The activity of budget preparation ends when the budget is approved by the parliament. The budgets submitted to the Ministry of finance by the budget agencies are consolidated and presented to the parliament for approval. The consolidated budget submitted to the parliament is composed of budget framework paper, Explanatory note to the budget, budget draft law, new fiscal measures supporting the budget, and any financial issues requiring the attention of the parliamentarians. Once the parliamentarians are satisfied by the explanation provided to them by the Minister of finance, they give a go ahead for the use of budget and approve the law governing it. Otherwise the budget may be revised but this is unlikely to happen.

2.1.6 Theories of budgeting

2.1.6.1 Agency theory

The agency theory was developed by Jensen and Meckling (1976, cited in Mitzkus, 2013) who described the agency relationship as "a contract under which one or more persons (the principal(s) or entity owner(s)/shareholder(s)) engage another person (the agent or manager) to perform some service on their behalf which involves delegating some decision making authority to the agent" (Jensen & Meckling, 1976, p. 308). The main purpose of agency theory concerns determining the most efficient contract governing the principal-agent relationship.

Therefore, agency theory describes the conflict between managers and shareholders that arises when managers choose actions that are not in the best interest of shareholders in order to maximize their own utility (McDermott, 2011). This moral hazard problem is caused by the existence of information asymmetry between managers and shareholders and can result in managers choosing investments with negative net present value.

The current study finds the agency theory relevant in explaining the effectiveness of budgeting as a management tool for organizational performance. In public institutions like the University of Rwanda, managers and staffs (Vice Chancellor, Deputy Vice Chancellor, Principals, Schools deans, department and lecturers) act as agents for the owner of the institution which in this case happens to be the government. The managers are entrusted by the government to run these institutions on its behalf. Therefore, managers are mandated to formulate budgets and present to the government for funding. They are also required to publish the budget to all stakeholders in a transparent manner without any hidden selfish interest which may create the moral hazard in the public institution.

2.1.6.2 Contingency theory

The contingency theory (Otley, 1980) proposes that there is no single approach to budgeting suitable for all an organization. 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). Therefore, it is worth to argue that while budgeting, the University of Rwanda should not rely on one approach but rather adapt to different approaches in regard to the prevailing economic conditions.

2.1.7 Budgeting approaches

2.1.7.1 Traditional budgeting

McNally (2002) divided the approach to budgeting into four levels (time period of the budget, forecasted values, forecasting process, and goal setting) to better analyze processes. Applying this structure to Nolan's findings, 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 & Emblemsvag, 2007). Therefore, 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.

However, the traditional budgeting approach (also call incremental approach) had a number of problems as a comprehensive budgeting paradigm even given the era and environment (LeLoup, 1978, cited by Khan & Bartley, 2002). First, it confuses mutual adjustment and bargaining processes with the outcomes of budgeting. It is due to this weakness that Bailey and O'Connor (1975, cited by Khan & Bartley, 2002) concluded that "when traditional budgeting approach is defined as bargaining, are aware of no empirical case of a budgetary process which is non-incremental".

The approach was also criticized by Khan and Bartley (2002) who argued that the approach was built on a series of analytical choices that severely limited its applicability and made it unsuitable for explaining the kinds of changes that were taking place in budgeting in the 1970s and 1980s. It was a paradigm of micro-budgeting concentrating on the parts, not the whole. It defined budgeting as a bottom-up process of making marginal adjustments to estimates on an annual basis, without considering macro-budgetary attempts to shape the budget from the top-down. Incrementalism looked at budgets by agency rather than by function or broader aggregates. It looked at change over a year rather than over longer time periods. No distinctions were made between discretionary spending and other types of mandatory categories. Budget totals, revenues, deficit or surplus, and other budget measures outside of appropriated accounts were ignored.

2.1.7.2 Modern budgeting

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 & 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 (Borjesson, 1997). The primary goal is to control undistributed costs that cannot be directly related to volume or revenue levels by obliging justification for incurred costs that have to be improved (Labbe, 2008). Consequently, goals to evaluate performance are a set in a participative approach meaning those responsible for achieving the budget goals are included in setting them (Brown, Evans & Moser, 2009).

2.1.7.3 Best practices in budgeting

There is a broad scale from traditional budgeting to modern budgeting, as defined above, to what are known as better budgeting practices, referring to the techniques of Activity Based Budgeting (ABB) and Beyond Budgeting (BB) (De Waal, 2005).

For activity based budgeting (ABB) the goal is to accurately display relationships between revenues and costs incurred to generate the prior. The focus lies on generating a budget from an activity-based model of the organization, as opposed to the traditional departmental focus, not tracing but only allocating indirect costs (Narong, 2009). Innes (2005) supplemented, "that the operational loop uses activity-based concepts to convert the estimated demand for products and services into activity requirements using activity consumption rates, and then translates activity requirements into resource requirements using resource consumption rates".

The beyond budgeting (BB) approach takes this further by seeking to avoid the performance trap. This trap involves dysfunctional behaviors that stem from evaluating line managers according to budgetary targets that have been set without reference to a credible outside source. The approach replaces rigid budget-based performance evaluations with flexible benchmarked based comparisons (Hansen, Otley & Van der Stede, 2003).

2.1.8 Limitations of budgeting process

A rational adoption decision for formal budgeting procedures should require an evaluation of the associated costs as well as the benefits. Costs of a formal MCS include the easily measures of out of pocket costs associated with implementing and operating the system.

Other costs that are not so easily measured are the possibility that budgets create rigidity thereby limiting co-operation and creative response, over-emphasize short-term cost control and top-down authority, encourage gaming, and discouragement of employees. Further, arguably the benefits and costs associated with adopting a formal budgeting practice will not be the same for every business but will depend on business-specific contextual factors (King, et al., 2010; Neely, 2007). Shastri and Stout (2008) agree and further structure limitations in budgeting into three major categories, that is, strategy, processes and slack.

According to the competitive strategy, Shastri and Stout (2008) argues that budgets are rarely strategically focused and are often contradictory, they concentrate on cost reduction and not on value creation, they constrain responsiveness and flexibility, and are often a barrier to change and they add little value - they tend to be bureaucratic and discourage creative thinking.

On the business process Shastri and Stout (2008) says that budgets are time consuming and costly to put together, they are developed and updated too infrequently - usually annually, they are based on unsupported assumptions and guesswork and they encourage gaming and perverse (dysfunctional) behavior.

Regarding budgetary slack, Shastri and Stout (2008) say that budgets strengthen vertical command and control, they do not reflect the emerging network structures that organizations are adopting, they reinforce departmental barriers rather than encourage knowledge sharing, make people feel undervalued and encourage short term gains only.

2.1.9 Budgeting and Performance of a higher learning institution

Most organizations, especially profit-oriented use financial measures to determine the performance of the organization. The fact that our case study is a higher learning institution which is non-profit institution means that we shall use operational performance measure since University of Rwanda does not deal in profit generating activities. Operational performance means the process of translating (strategic) choices to operational actions by organizing and managing operational processes in such a way that it contributes to the realization of (strategic) objectives (PWC, 2014). Operational performance measures to be used on this case study will include productivity, quality, innovation, teamwork, greater employee involvement and commitment, cost reduction and flexibility.

2.1.9.1 Budgeting and Innovation

Innovation is the process of translating an idea or invention into a good or service that creates value or for which customers will pay (Schefczyk, 1993). Innovation can also be defined as the application of new ideas to the products, processes, or other aspects of the activities of a firm that lead to increased "value." This "value" is defined in a broad way to include higher value added for the firm and also benefits to consumers or other firms

(Sarkis, 2000). Two important definitions are: *Product/service innovation*: the introduction of a new product, or a significant qualitative change in an existing product. *Process innovation*: the introduction of a new process for making or delivering goods and services (Rosseger, 1986).

Innovation involves deliberate application of information, imagination and initiative in deriving greater or different values from resources, and includes all processes by which new ideas are generated and converted into useful products.

2.1.9.2 Budgeting and service Quality

On the other hand, Sarkis (2000) defines quality as the degree to which a provided activity promotes customer satisfaction. For example, quality of service technologies used in the electronic or telephone networking business typically assists in optimizing network traffic management in order to improve the experience of network users. The notion of quality in business focuses on the savings and additional revenue that organizations can realize if they eliminate errors throughout their operations and produce products and services at the optimal level of quality desired by their customers (Schefczyk, 1993).

2.1.9.3 Budgeting and Teamwork

The forth indicator (teamwork) is the process where people in an organization or project work together in order to achieve the targeted goals. Teamwork is an important factor for smooth functioning of an organization (Froebel & Marchington, 2005). Most of the organizational activities become complex due to advancement in technology therefore teamwork is a major focus of many organizations. Team members enhance the skills, knowledge and abilities while working in teams (Froebel & Marchington, 2005). Organizations which emphasize more on teams have results in increased employee performance, greater productivity and better problem solving at work (Cohen & Bailey, 1999).

2.1.9.4 Budgeting and Employee involvement

Employee involvement is the regular participation of employees in (1) deciding how their work is done, (2) making suggestions for improvement, (3) goal setting, (4) planning, and

(5) monitoring of their performance. Employee involvement is based on the thinking that people involved in a process know it better and are more motivated to improve their performance. Over the last few decades management studies have been emphasizing employees' role, through an increased participation in the process for change. In fact, the influence of employees involvement in firms changing processes has been extensively reported in both academic and practitioner journals which strongly highlight its importance and potential on organizational changes (Welikala and Sohal, 2008; Sun, et al., 2000) through personal involvement on problem-solving and decision-making. Pun, et al. (2001) highlighted that employees "involvement may provide the foundation for quality efforts and strategy development, and ensure that practices implemented conform to quality requirements that are followed by everyone in the organization.

Such propositions are corroborated by other researchers. As found by Powell (1995) employees' involvement was significantly correlated with overall corporate performance. Dow, et al. (1999) concluded that workforce commitment had a significant positive association with organizational performance. O'Brien (1995) observed that higher productivity and efficiency may be reached through employees' involvement and empowerment. According to Dale, et al. (1997), results suggest a positive correlation between high employee involvement and companies' productivity and long-term financial performance.

2.1.9.5 Budgeting and Cost reduction

Roth and Menor (2003) define cost reduction as the process by which production costs are minimized in an organization. Cost reduction can also be defined as the process used by companies to reduce their costs and increase their profits. Depending on a company's services or product, the strategies can vary. Every decision in the product development process affects cost. Companies typically launch a new product without focusing too much on cost (Crane, 2012). Cost becomes more important when competition increases and price becomes a differentiator in the market.

2.1.9.6 Participatory Budgeting (PB)

This is the budgeting process that involves the participation of all stakeholders in the budgeting entity. The central goal of PB is that it changes the relations between the budgeting institution and stakeholders, and at the same time generates stakeholders' empowerment and new forms of local governance (Cabannes, 2014). It also encourages accountability, transparency and democratic governance within the institution as well as teamwork which promotes knowledge sharing and organization-wide productivity.

On the one hand, it triggers the emergence of new forms of stakeholder organizations during the budgetary decision-making process and its implementation. It contributes to the emergence and strengthening of a fourth power in institutional democracy (in addition to the Board of directors, management and staff legal powers) - that of the local community within the institution.

Furthermore, by creating new spaces of dialogue between various stakeholders and institutions and frequently also new joint decision-making bodies, Participatory Budgeting strengthens societal governance as well (Massy, 1996). These new spaces, more or less institutionalized, contribute to inverting the balance of power in the stakeholders' favor, and on rare occasions even to the benefit of the most excluded social groups.

2.1.9.7 Budgeting and institutional research and innovation

It has been suggested that budgeting in academic institution facilitate research and innovation of staffs in promoting academic excellence by ensuring that resources are available and quality academic services are provided. It also facilitates institutional development through scholarly publications as well as balancing student to teacher ratio in the university. Furthermore,

Massy (1996) indicates that the allocation of resources, especially to research, is encouraged because the academia seeks prestige, recognition and, of course, more money for new research. Higher education institutions tend to value research over teaching and the pursuit of personal and collective prestige relegates the educational function to a secondary mission.

However, Gunatilake (2006) finds that budgets are time consuming and expensive, too rigid and prevent fast response, stifle product and strategy innovation, focus on sales targets rather than customer satisfaction, reinforce a dependency culture and lead to unethical behavior. He argues that a number of organizations recognized the damage done by budgeting and rejected the reliance on obsolete data and fixed plans. Organizations that have gone beyond budgeting represent widely differing industries and vary in size. They have all found that their performance has improved once the budgeting process was abandoned in favor of more relative and adaptive means of planning, evaluating performance and control. They saved considerable amounts of time that used to be spent on budgeting.

2.1.9.8 Budgeting and academic resources for libraries

Allocating a university library's budget for collections equitably across academic disciplines, departments or schools is a problem most library managers face on a regular basis. The need to manage journal spend across disciplines and support new teaching programs and new research areas within an already tight budget is an annual occurrence (Massy, 1996). Additionally, the complexities of a rapidly changing technological environment with a move to more expensive digital collections and a tougher financial régime as universities cut back on their operating costs, and it becomes a serious challenge. In order to solve this resource problem, Bank (2012) argues that the budgeted allocation and authority to purchase are then devolved to schools, who may choose to divide the sum further between departments or programs. The author argues that this type of budget allocation significantly promotes the availability and accessibility of academic resources by students and staffs at each college.

2.1.9.9 Budgeting and staff training

The role of employee training and development is becoming more important as institutions are increasingly relying on the knowledge, skills and abilities of their human capital to drive firm performance. Since training is a major component in enhancing employee competencies, tracking the training-cost-per-employee through the budget process helps determine the investment in training at an individual level (Essen & Collison, 2005). By incorporating staff training and sponsoring staffs for further studies, institutions of higher learning improve service delivery, quality, operational efficiency, reduce errors, etc.

Therefore, from the above, it can be observed that with operational performance, quality increases, cost decreases, capability increases, capacity increases, knowledge increases, skills increase, identity and motivation increases. With regard to the UR, it can be argued that as the university management advances their level of performances, they are able to organize people and resources more effectively and to get higher quality results in a shorter time. When academic departments improve their level of performance, the members of the department are able to produce more effective student learning, more effective research, and a more effective culture. Similarly, when the financial and accounting departments improve their performance, the university will use the resources effectively and generate more revenue which promotes the overall institutional performance.

2.2 Empirical literature review

Various researchers have conducted empirical studies on budgeting and institutional performance and effectiveness. Beginning with North America, Horngren, *et al.* (2008) in their recent surveys show just how valuable budgets can be. They assert that, a study of more than 150 organizations in North America listed budgeting as the most frequently used cost management tools and it was also the tool with the highest value to the organization. Furthermore, they show that, study after study has shown the budget to be one of the most widely used and highest rated cost management tools for cost reduction and control. Highlighting one of the usefulness of budgeting to the users, they maintain that, advocates of budgeting claim that the process of budgeting forces manager to become a better administrator and puts planning in the forefront of managers' mind.

In the same book, Horngren *et al.* (2008) also point out that the result of a survey carried out in the same place (North America) shows that most managers still agree that budgeting, correctly used has significant value to management. They reported that over 92% of the

150 companies in North America use budget and remarked budgeting as the top among the top three cost management tools.

In a similar view, CIMA and ICAEW in 2004 on "The traditional role of budgeting in organization", revealed that budgeting and the accompanying process are indispensable. It was further found out that traditional budgeting remains widespread as some respondents revealed that as many as 99% of European companies have a budget in place and no intention to abandon it (Kennedy & Dugdale 1999, cited in CIMA-ICAEW, 2004).Consistent with this, Anand, *et al.* (2004) in a survey carried out in India found out that the use of budgets as a part of management control system is wide spread. Precisely, 88.7% of the respondents in their study prepared budgets. They assert that nearly all the companies in Australia, Japan, UK, and USA prepare budgets (Anand, *et al.,* 2004).

The empirical studies of the relationship between institutions and fiscal performance provide empirical support for the assumption that a top-down budgeting process is associated with lower deficits and debts. In his pioneering study of budget procedures of 12 EU-member countries, von Hagen (1992) tests the hypothesis that a top-down process in the preparatory phase of the budget, and a top-down decision-making order in parliamentary approval is more conducive to fiscal discipline than bottom-up procedures. These two aspects are included in structural indices characterizing the budget process, which are found to have a significant relationship with deficit and debt levels. De Haan and Sturm (1994) extend the study to control for the composition and stability of government, and confirm that certain budget institutions, including top-down budgeting, are correlated with a more robust fiscal position. Woo (2003) takes a similar approach and constructs an index that broadly corresponds to a top-down budget preparation process. When expanding von Hagen's study to include nine East Asian countries, Woo confirms a strong relationship between these institutional arrangements and fiscal outcomes.

Hansen and Stede (2004) have examined the reasons to why organizations make budgets in practice. In the article "Multiple facets of budgeting: an exploratory analysis" the writers have analyzed the purposes to why organizations use a budget. They found four purposes, which correspond to the traditional reasons. In the article, data from a survey made on 57 managers that are responsible for setting the budget have been analyzed. The authors conclude that the four main purposes of budgeting are: (1) operational planning, (2) performance evaluation, (3) communication of goals, and (4) strategy formation.

The four purposes found by Hansen and Stede (2004) contain short term as well as long term planning (operational planning and strategy formation), they include communicating the budgets to the employees in order to ensure that everybody understand the organization's objectives (communications of goals). Through the last purpose it covers performance evaluation. Hansen and Stede (2004) describe how the "qualities" for an organization determines the purposes of budgeting. Hansen and Stede conclude that performance evaluation often is used in large organizations and in organizations with clear and traceable resources.

For organizations, which appear in a competitive environment, the purpose of having budgets, as a way to communicate goals and strategies, is more significant than the other three reasons. Companies tend to put less importance on having the budget as performance evaluation in a competitive environment. However it is vital to consider that these are just trends and that no generalizations can be made.

Hansen and Stede (2004) state that the importance of the purposes varies among organizations, for instance it depends on the size of the organization, the environment and the culture of the company. There is no single successful way of budgeting that can be used in order to fulfil each of the four purposes stated above. Every budget demands its own certain level of budget participation, level of "difficulty" to reach targets and strategy formulation etc. to be effective.

Empirical results from a study by Faleti and Myrick (2012) on the Nigerian Budgeting Process summarized evidence of the positive effect of the formal budgeting process on employment performance. First, it was found that more formalized budgeting planning led to higher employment performance and sales revenues growth. Second, budget goal characteristics were shown to strongly affect the budgetary performance of Nigerian ministries, departments and agencies (MDAs). More important, this reveals that clear budget goals led to higher goal achievement. Difficult (but attainable) budget goals increased the motivation of employees to achieve budget standards; thus, budget goal difficulty was found to lead to improved employment performance of Nigerian MDAs. Third, the results revealed that more formalized budgetary control tended to lead to higher employment performance and greater profit of a sector. This was explained by the fact that owing to management control, the total expense of a sector will be minimized, resulting in employment performance growth and profit. It is interesting to note that formal budgeting planning and formal budgetary control differed in terms of their effect on financial performance. Formal budgeting planning had a greater impact on the employment performance growth and sales growth of MDAs than formal budgetary control. However, its impact on employment performance and profit growth was very weak, and formal budgetary control, in contrast, exerted a strong influence on the growth in employment performance and profit in MDAs.

On the other hand, research also shows that over 60% of companies are continuously trying to improve the budgeting process to meet the demands set for management in creating sustainable value (Ekholm & Wallin, 2000, cited in CIMA-ICAEW, 2004). According to Bourne (2004), Cranfield University in 2001 teamed up with Accenture's finance and performance management service line to undertake a large worldwide review of planning and budgeting. They focused on 15 companies in the US and Europe which had already made adjustments to their budgeting practice. In addition, the researchers reviewed over 100 academic and practitioner books on the subject. The result showed a widespread dissatisfaction with the budgeting process (Bourne, 2004).

Contrary to this conclusion, Dugdale & Lyne (2004) also argue that there is little or no evidence to support the view mentioned above that there is a widespread dissatisfaction with budgeting process. They affirm that, there seems to be no widespread dissatisfaction with traditional budgeting. Instead, managers generally see budget as important, especially for planning, control and evaluation. More so, one of the criticisms held against the traditional budgeting is that, budgets are rarely strategically focused, but contrary to this opinion, Anand, *et al.,*(2004) in an investigation carried out in India, find out that the respondents as a matter of fact used more than one goal in formulating the master budgets.

2.3 Critical literature review

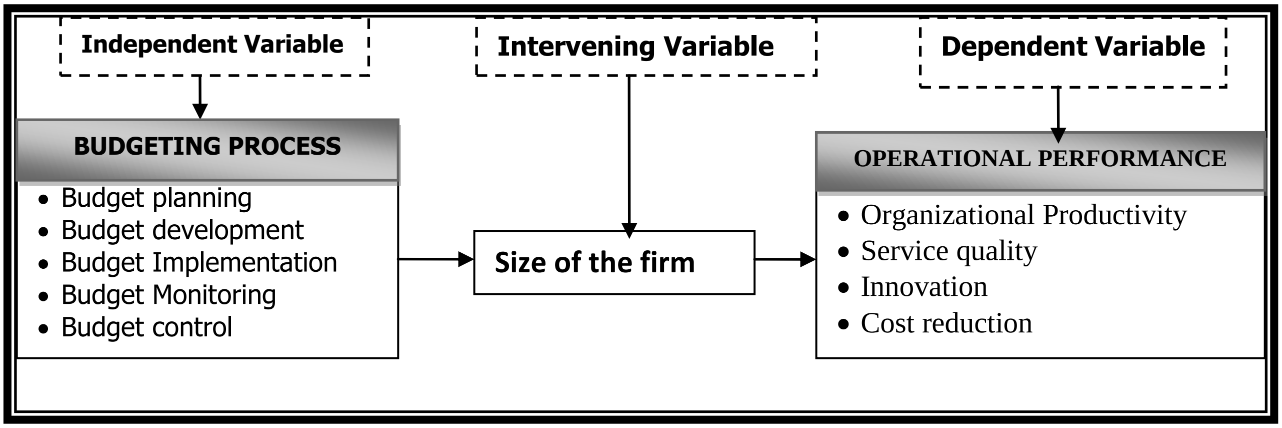
Most of the studies conducted on budgeting and performance focused on firms and institutions in foreign countries. For example Horngren, *et al.* (2008) focused on North America, Anand, *et al,* (2004) focused on India, von Hagen (1992) focused on the European Union while Woo (2003) concentrated on East Asian countries. Apart from Faleti and Myrick (2012) whose study focused on Nigerian public institutions, no other available study has been conducted on the African continent and in particular, Rwanda. This has created scarcity of academic knowledge in the field of budgeting and organizational performance. This study is aimed at closing this academic gap by conducting the study on the local context to avail academicians and scholars with local content on budgeting and institutional performance.

Additionally, available empirical studies on budgeting and organizational performance (Hansen and Stede, 2004; Horngren, *et al.,* 2008; Bourne, 2004) have tended to concentrate on profit making institution and given less attention to non-profit making institutions. As a result, these studies have only used financial measures of performance such as net profit margin, return on assets, return on investments and return on equity. This means that other performance measures that are non-financial such as employee behavioral outcomes operational outcomes and structural changes have been given no attention. The current study tries to close this academic gap by focusing on the effect of the budgeting process on these non-financial performance measures in the University of Rwanda.

2.4 Conceptual framework

The conceptual framework is a graphical and or/diagrammatical representation of the relationship between variables in a study. The conceptual framework for this study is shown by figure 2.2.

Figure 2.2: Conceptual framework



Source: Author's own

As shown by the conceptual framework in figure 2.2, budgeting is the independent variable (measured in terms of planning, development, implementation, monitoring and control) while operational performance is a dependent variable (productivity, service quality, innovation and cost reduction).

Operational Performance which is the outcomes of effective budgeting process is measured in terms of Productivity, service quality, innovation and cost reduction.

However, there is also the size of the institution which acts as an intervening variable. Size of the firm is an important moderating condition in explaining how budgeting can positively influence institutional performance. It is not the budgeting-performance relationship alone that influences the institutional outcomes, but the interaction between the two variables which is always moderated by firm size. It is the firm size that determines the size of the budget and the sources of revenue for financing the budget. Bigger firms are likely to access funding than smaller firms. In effect, the size of the firm which always means easy access to large amounts of revenue empowers the management to work towards achieving institutional goals and this has a direct effect on performance.

2.5 Chapter Summary

This chapter has highlighted the related literature in regard to budgeting process and performance of a higher learning institution. It includes the budgeting process, purpose of budgeting, types of budgets, theories on budgeting, effect of budgeting on performance and the conceptual framework.

CHAPTER THREE: RESEARCH METHODOLOGY

3.0 Introduction

This focuses on the methodology of research; namely research design, area of the study, population, sample size, sampling technique, sources of data, data collection techniques and methods of data analysis.

3.1 Research design

According to Shajahan (2009), a research design is a logical and systematic plan prepared for directing a research study. It specifies the objectives of the study and the methodology and techniques to be adopted for achieving the objectives. It constitutes the blueprint for the collection, measurement and analysis of data. The type of research is both qualitative and quantitative and the research design adopted for this study is a case study design.

This research was based on the case study of University of Rwanda in order to identify, analyze and understand how the budgeting process affects performance. The research used both qualitative and quantitative approaches.

Qualitative approach was used in order to go deeper into issues of interest and explore UR's budgeting process which was done through face to face interview, observation. On the other hand, quantitative approach helped the researcher to quantify the problem and understand how prevalent it is by looking for projectable results to a larger population. This was done through questionnaire and the interview guide. Consequently, the researcher used both approaches since they provide different perspectives and usually complement each other.

3.2 Population and Sample size

3.2.1 Population

According to Amin (2005), the population is the complete collection (or universe) of all the elements (units) that are of interest in a particular investigation. The study population was 80 people who comprised of Deans of Schools, heads of departments and units, Administrative Assistant of schools and units, Directors of Centers, Coordinators of

Projects, Director of Finance, Director of Planning and Finance unit staff who have direct involvement in the budgeting process at the University of Rwanda.

3.2.2 Sample size

The sample size was 60 people who were selected by use of purposive sampling. This is a sampling technique where respondents who were believed to have relevant data were purposely selected in advance.

3.3 Research instrument

The specific type of instrument to be used in data collection is highly dependent upon the data collection method, such as interview - interview schedule, observation-forms for recording or rating respondents' behavior, instrument administration- questionnaire, checklist, skills test, etc. Sproull (1988, cited by Demircioglu, 2008) states the most important factors to consider in selecting an appropriate instrument are: first, does it measure the variables appropriately; second, is it sufficiently valid and reliable; third , does it yield the appropriate level of measurement for each variable; fourth, does it require an appropriate amount of time; fifth, is it easy to acquire subjects and respondents; Sixth, is it easy to administer; seventh, is it easily interpreted; and ninth, is its cost within the overall budget?

For this research the appropriate instrument used to collect primary data was a self-administered questionnaire. The researcher designed the questionnaire in such format where there was closed questions that were constructed on a five-point Lickert scale (where 5=Strongly Agree, 4=Agree, 3=Neural, 2=Disagree and 1=Strongly Disagree). To answer these questions, respondents were required to pick responses from the list and tick in the relevant space provided. The researcher preferred to use the questionnaire because it is easy to administered, cost effective and it can collect enormous data in a short period of time compared to other research instruments.

In some cases the researcher organized and conducted face to face interviews with respondents and recorded the findings. The interview method helped the researcher to collect information from respondents who did not have time to complete the questionnaire.

The use of interview was preferred because it allows respondents to provide detailed information in a free and open atmosphere.

The secondary data was collected from different documentations such as government rules and regulations, University of Rwanda Budget plan, Budget execution, budget audit reports, financial reports, monitoring and evaluation reports to determine the institution's performance against the set targets, etc.

3.4 Procedure for data collection

After the approval of the proposal by University of Rwanda (UR), the researcher was given the letter of introduction to collect data from UR budgeting staffs. The researcher then met the management of the UR and gained permission to administer the questionnaire and interviews. The major research instrument, the questionnaire was given to technical staffs and experts on budgeting to get their comments on where changes were needed. This expanded the validity and consistency of questionnaire. After making some modifications, the research instruments were re-administered.

3.5 Validity and reliability of research instruments

3.5.1 Validity

Validity of research instruments refers to the appropriateness of instrument (in this case the questionnaire and interview guide) to measure a variable and come up with intended results (Amin, 2005). Validity means the success of the scale in measuring what it sets out to measure. The validity was measured by determining the Content Validity Index (CVI) which is a number that measures how valid a research instrument is. CVI is calculated as follows:

$$\text{CVI} = \frac{\text{Number of items judged relevant}}{\text{Total items in the questionnaire}} \text{x} 100$$

According to Amin (2005), the CVI of 70% and above is regarded as acceptable. The researcher also pretested the questionnaire by using research experts especially lecturers of UR. These were requested to judge whether questions in the questionnaire were relevant and able to collect valid data for the study.

3.5.2 Reliability

Data reliability refers to the accuracy and consistency of the research instrument (questionnaire and interview guide) in measuring what it is intended to measure. Reliability was determined by collecting information from only respondents who had experience in budgeting and those who were involved in daily activities of budget execution. This means that such respondents had reliable information on the budgeting process and its effect on performance at UR. The positions occupied by the respondent give them advantage to have information on their fingers on issues related to budgeting process than any other person within the University of Rwanda. In addition, the fact that the samples included senior management also gave confidence to the researcher that the issues of budgeting were covered in all aspect since the senior management had better understanding of the institution as whole.

3.6 Data analysis

Before the data was entered into the computer for analysis and interpretation, the researcher coded and cross checked responses. Both qualitative and quantitative techniques were employed for data manipulation. They included editing, coding and summarizing the data into frequencies and percentages using MS Excel spreadsheet and SPSS so as to aid the researcher to meaningfully describe the distribution of responses using a few indices. The data was then analyzed using graphs, pie charts, tables and other descriptive methods which were backed by frequency and percentage presentation. Qualitative data obtained was analyzed where opinions, ideas, beliefs, attitudes, statements or arguments were classified into themes, categorized and then discussed within the context of interpretation of research findings. Secondary data was used to complement primary data where comparisons were made to determine whether primary and secondary data were compatible.

3.7 Ethical consideration

While conducting the study, the researcher observed various research ethics such as honesty, integrity, confidentiality, non-discrimination, human subjects' protection, etc. The researcher first explained the purpose of the research to respondents and then sought permission for conducting the study in their institution. The researcher respected human dignity and respected the respondents' choice to answer/not answer the questions presented in the questionnaire and interview guide. Confidentiality was observed and names of respondents were not published in final dissertation.

3.8 Summary

The chapter highlights the methods used in data collection, analysis and interpretation. It highlights the design, population and sample size, data collection, analysis and interpretation methods and techniques.

CHAPTER FOUR: DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter presents and analyses the study findings. The analysis is done based three objectives that guided this study, that is, the purpose of Budgeting at University of Rwanda, the effectiveness of the budgeting process at University of Rwanda, the contribution of budgeting to the performance of University of Rwanda and the problems encountered in the budgeting process at University of Rwanda.

4.2 Historical Background of University of Rwanda

The University of Rwanda (UR) was created through the law No 71/2013 of 10/09/2013, which resulted into the merging former higher learning public institutions. After the merger, these learning institutions were turned into constituent colleges of University of Rwanda. These institutions include National University of Rwanda, Higher Institute of Agriculture and Animal Husbandry, Kigali Institute of Sciences and Technology, Kigali Health Institute, Kigali Institute of Education, School of Finance and Banking, and Umutara Polytechnic University (Official Gazette no 38 of 23/09/2013).

4.2.1 Mission of University of Rwanda

The mission of University of Rwanda is to deliver quality of education and develop innovative teaching and research meant to address the problems of the population, the students, the nation, the region and the word. University of Rwanda has the following main mission:

- To design and offer higher level courses for the award of undergraduate and postgraduate degrees in diverse discipline of study including science and technology. University of Rwanda also offer short- term courses for an award of certificate,
- To provide a student with skills, technology and education which facilitate him/her in building confidence to create jobs and contribute to personal and the country's development,

- To facilitate the advancement of knowledge and its practical application through research and other means,
- To participate in the discovery, transmission and preservation of knowledge and to stimulate the intellectual development and Rwandan culture,
- To publish research findings through oral, written any other means and to collaborate with other institutions in dissemination of the findings to foster the development of the country,
- To assist the population to solve other national development issues by means of the academic programs,
- To collaborate with other concerned organs as well as the private sector to ensure quality education in order to provide graduates who respond to the markets needs,
- To cooperate and collaborate with other national, regional and international higher learning institutions.

4.2.2 Power of University of Rwanda

The University of Rwanda has the following powers**:**

- To awards degrees, diploma or certificates in relation with courses it offers,
- To approve the requirements for admission of students,
- To conclude cooperation agreement with various institutions in charge of education, training or research as well as other national, regional and international institutions of higher learning,
- To award honorary degrees in accordance with relevant rules and regulations,
- To promote academic staff and researchers of University of Rwanda to different academic ranks,
- To perform income generating activities through an institute or specialized institutes.

4.3.1 Response Rate

In order to obtain primary data for presentation of research findings, the researcher distributed 60 questionnaires to 60 selected respondents with the view of clearly understanding how budgeting process affects the performance of the University of Rwanda. However, eleven (11) of the administered questionnaires were not filled as respondents cited inadequate time. Therefore, out of the sample size of 60 people, data was collected from 49 people, who constitute a response rate of 81.7%. This response rate is valid since it greatly surpasses the recommended 50% recommended by Amin (2005). Altman and Bland (2007) also agree by indicating that obtaining a higher response rate that exceeds a half of the respondents is preferable because the missing data is not random.

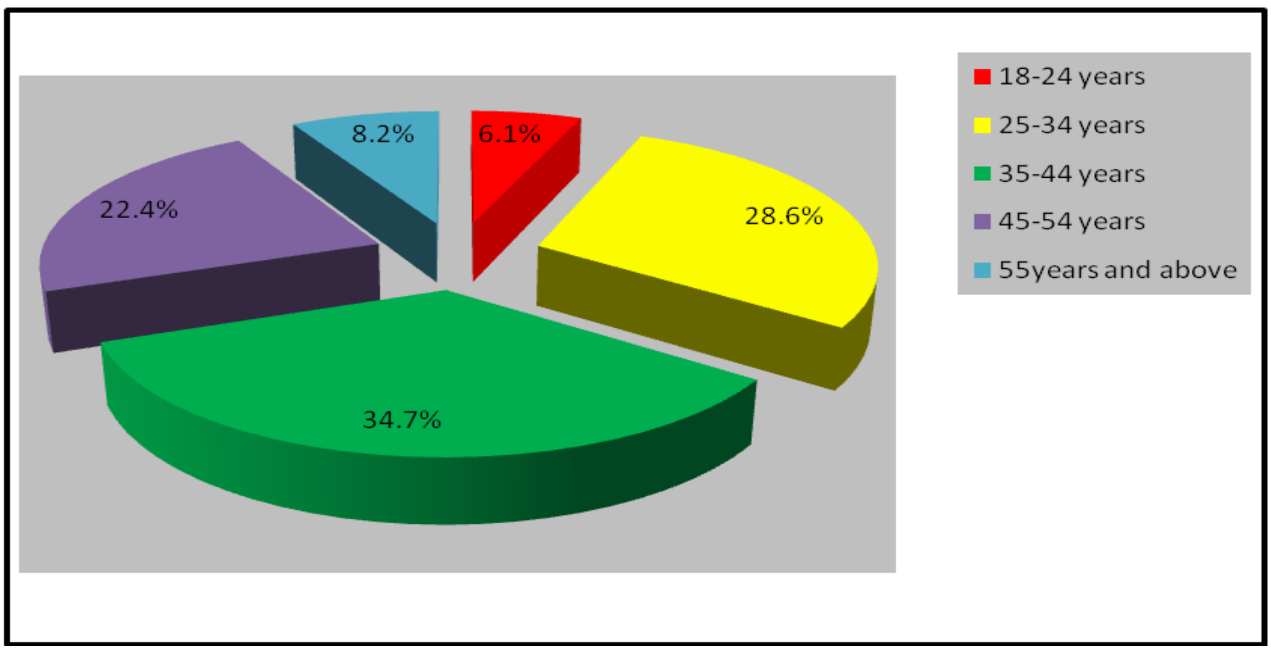
4.3.2 Respondents' Background Information

Background information of respondents have very significant role to play in expressing and giving the responses about the problem. Keeping this in mind, in this study, the background information of respondents namely, age, gender/sex, level of education and period of work experience in budgeting at UR has been examined

4.3.2.1 Respondents' Age

The study sought to investigate the age of respondents in order to determine whether they had attained the age of consent to participate in the study. Figure 4.1 shows the results.

Figure 4.2: Respondents' Age



Source: Primary data, 2015

Regarding age, figure 4.1 shows that 34.7% of respondents were in the 35-44 years age category. These were followed by 25-34 years and 45-54 years age categories which were represented by 28.6% and 22.4% of respondents respectively. The least represented age category was that in the age range of 18-24 and 55 years and above. The statistics indicates that University of Rwanda has a higher number of young staffs who are energetic and can effectively allocate and utilize the institution's resources to improve performance. The above data is corroborated by Powell (1995) who argued that young employees are always curious about new ways of proving their worth on the job and tend to be more motivated than older staffs. This proves that University of Rwanda in addition to employing old people with experience has also incorporated in the younger generation who are effective in improving the university's performance.

4.3.2.2 Educational qualification attained

The education level of respondents was investigated as it is an important variable in determining the ability of respondents to understand the study concepts. Table 4.1 shows the results.

Table 4.1: Educational qualification attained

Education level	Frequency	Percent
PhD	12	24.5
Masters Degree	18	36.7
Bachelor's Degree	10	20.4
Others	9	18.4
Total	**49**	**100**

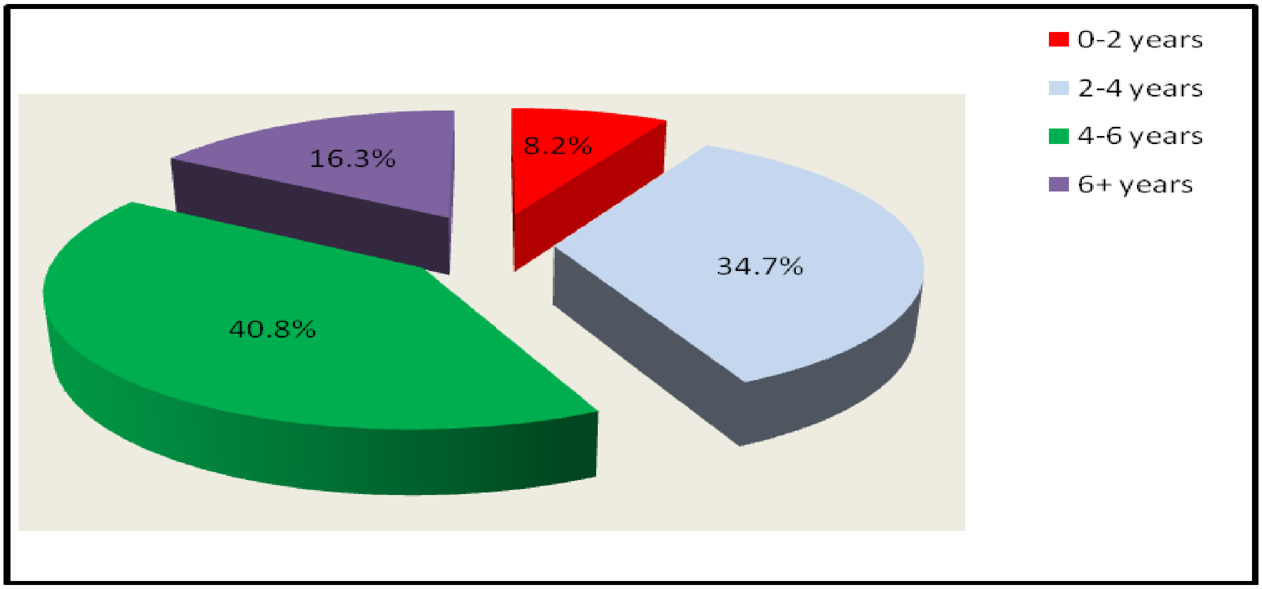
Source: Primary data, 2015

According to table 4.1, it was established that 36.7% of respondents had Masters Degrees while 24.5% had PhDs and 20.4% had bachelors' degrees. On the other hand, 18.4% had other qualifications such as Certified public Accountant (CPA), Association of Chartered Certified Accountants (ACCA), Chartered Institute of Purchasing and Supplies (CIPS), etc. This high level of educational background was expected since the study was conducted in academic institution. It indicates that respondents had the ability to provide valid and relevant data in regard to the budgeting process. This is consistent with Powell (1995) who argued that during research studies, the researcher should ensure that the educated members of the survey sample should be the major focus since they have better knowledge of concepts than the illiterate.

4.3.2.3 Work experience with University of Rwanda

The study sought to investigate the period that respondents have worked with the University of Rwanda. This was intended to determine whether they had in-depth knowledge of the institution. Figure 4.2 shows the results.

Figure 4.2: Work experience with University of Rwanda



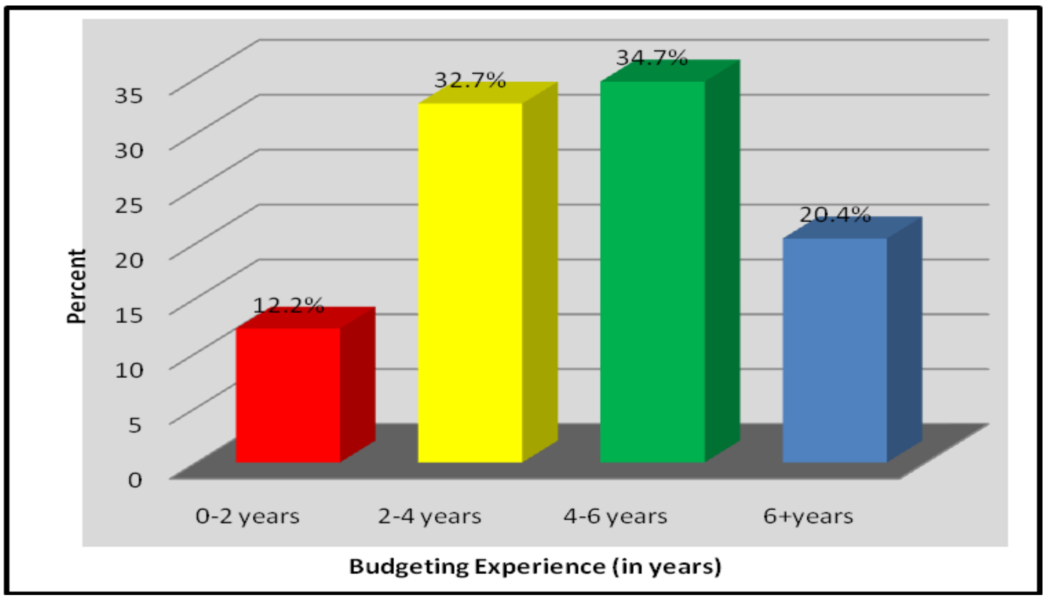
Source: Primary data, 2015

Figure 4.2 shows that 40.8% of respondents had worked with the University of Rwanda for a period of 4-6 years and 34.7% had worked with the university for 2-4 years. This was followed by 16.3% and 8.2% who had worked with the university for 6years and above and 0-2years respectively. From this presentation, it can be argued that majority respondents in the study had adequate knowledge of the institution since they had worked there for an extended period of time. The above findings agree with Amin (2005) who argues that the period of work experience in an organization determines the respondent's ability to gain access to vital information. People who have worked in an organization tend to have more knowledge of that organization than fresh staffs. This makes the researcher to believe that the data provided in regard to the institution was valid and reliable since most respondents had extended work experience with University of Rwanda.

4.3.2.4 Period of participation in budgeting process at the University of Rwanda

The study investigated the period that respondents have been participating in the budgeting process at the University of Rwanda at the time of the study. This aimed at determining the budgeting experience they possessed. Figure 4.3 shows the results.

Figure 4.3: Period of participation budgeting process



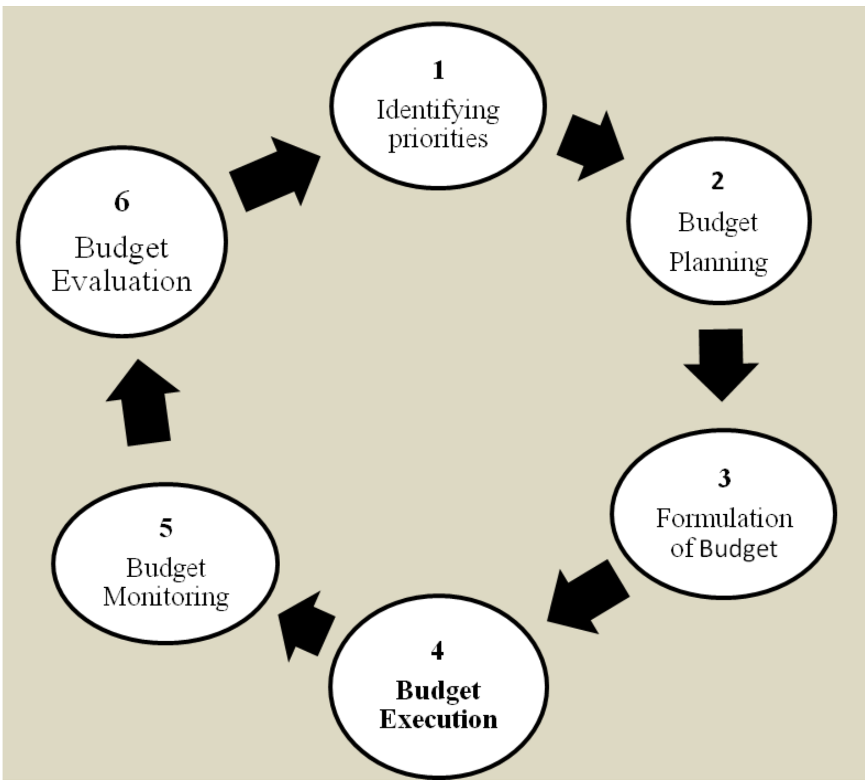
Source: Primary data, 2015

As figure 4.3 shows, the study found out that 34.7% have participated in the budget process at University of Rwanda for 4-6 years while 32.7% had participated in it for 2-4 years. These were followed by 20.4% and 12.2% who had participated in the university's budgeting activities for 6 years and above and 0-2 years respectively. This budgeting experience indicates that most people who provided data for this study had adequate budgeting experience which assures the researcher that the data provided is valid and relevant. As noted by Nolan (2005) people who have long period of experience in the budgeting process tend to understand more budgeting concepts than those who are not. This testifies that respondents in this study provided valid and reliable data.

4.3.3 Budgeting process at the University of Rwanda

The study investigated the budgeting process followed by the University of Rwanda. It was established that the budgeting process starts with an overview of the planning process in terms of the following six steps: identifying budget priorities, budget planning, budget formulation, budget implementation or execution, budget monitoring and budget evaluation as illustrated by figure 4.4.

Figure 4.5: Budgeting process at the University of Rwanda



Source: Interview data, 2015

4.3.3.1 Identifying Budget Priorities

Respondents reported that this is the first phase of the budgeting process followed by the University of Rwanda. They further noted that it is during this phase that priorities are identified. This is done by consulting strategic documents, identifying gaps and weaknesses (based on various institutional evaluations), and incorporating other new priority-setting processes. The budgeting phase is relevant and agrees with Lewin, (2006) who argues that during the budgeting process, education institutions should first select the budget committee to identify priority areas for funding. The National Association of State Budget Officers (2013) also indicates that higher learning institutions must prioritize its expenditures and curb costs, as well as manage and spend resources wisely and effectively, to put public higher education on a sustainable fiscal path. The authors argue that efficiency gains can be captured through strategies like shared administrative services, reducing duplication of activities. It is therefore right to argue that identifying budget priorities helps institutions of higher learning to avoid resource misallocation and wastage.

4.3.3.2 Budget Planning

Budget planning, which is based on the set priorities, clearly defines the activities which will be taken in the following academic /financial year. Typically in a planning exercise, each planning unit prepares a plan for execution of each of their functions and responsibilities after consultations with all stakeholders. Budget planning is the basis of resource allocation, and therefore takes place before budget formulation. Therefore budget planning for the next academic year starts at the beginning of the fiscal year. As noted by the National Association of State Budget Officers (2013), budget planning is very important because the changing fiscal identity of public higher education does raise the issue of planning in advance since there is always competition for funds from other various government agencies.

4.3.3.3 Budget formulation

Budget formulation, or budget preparation, is the process by which the University of Rwanda produce budgets. An effective budget pursues three (partially competing) objectives: maintaining fiscal discipline, allocating resources in accordance with policy priorities and efficiently delivering services, or 'value for money'. During this phase, budgeting personnel ensure that budgets are comprehensive, transparent and realistic.

For the University of Rwanda, interviewees noted that the process involves the combination of information from multiple sources, bringing together different perspectives and dealing with diverse interest groups, all influencing complex decisions to ensure that an all-inclusive budget is formulated and presented to the Ministry of Education for funding. Budget formulation is very important for education institutions because according to Lewin (2005), producing a solid budget submission leads to better decision-making about future program activities and budget strategies of the institution.

4.3.3.4 Budget Execution/Implementation

Budgetary implementation refers to the process of tracking and registering operations concerning budget appropriations and their uses (Faleti and Myrick, 2012). Based on the lessons of the past budgets, interviewees noted that the implementation of the budget at University of Rwanda is always coordinated, focused and aggressive. This means the appropriate sequencing of activities, the clear assignment of responsibilities, coordination led by responsible Implementing units. As the implementation of the budget progresses, budget planning and implementation structures are kept flexible enough to adapt to the changing environment, and evolve to remain relevant while improving their performance.

4.3.3.5 Budget Monitoring

Monitoring is a continuous process of collecting and analyzing data to compare how well the university's projects, programs, or policies are being implemented against expected results. This must result in a continuous flow of information throughout the course of the project so change to guide the revision of plans and budgets at all levels. At the University of Rwanda, the monitoring activity helps to facilitate evaluation. Monitoring takes place on a quarterly basis to ensure that reviews are made where gaps are identified before completing the activity/project. This budgeting phase is very important to the University of Rwanda because it is consistent with Fisher, et al. (2002) who argues that budget monitoring helps in keeping track of the budget implementation process which helps to identify gaps and seek for solutions during the budget process.

4.3.3.6 Budget Evaluation

This is the last stage in the budgeting cycle of University of Rwanda and it refers to the systematic assessment of the impact of an ongoing or completed university projects or programs, its design, implementation and results. It is the process of determining the worth or significance of an activity, policy or program. An evaluation provides information that is credible and useful, enabling the incorporation of lessons learned into the decision – making process of both recipients and donors. Project or programs are evaluated quarterly to ensure that all short term targets are achieved or a budget review is made. All departments at the University of Rwanda must prepare costed evaluation plans and their rationale at the beginning of each academic year. The full range of evaluation issues are considered at the Planning stage.

This stage of the budget process is important for academic institutions because, according to Yuen (2007), it helps the management to determine whether the budgeted items have been procured according to the set quality and quantity, there by identifying the gaps and design solutions on how to fill any of the budgetary gaps.

Findings from interviews with respondents indicated that in addition to the above phases, the budgeting process at University of Rwanda also involved forecasting, management control and task control.

Respondents revealed that budget forecasting at University of Rwanda involves the use of accumulated historical data to predict financial outcomes for future months or years. This is where the budgeting team looks at the previous year budget to determine what needs to be done in the current budget and the source of funding for the budget.

Furthermore, one respondent said that management control is the effort by management to compare budget performance to predetermined standards or objectives in order to determine whether budget performance is in line with these standards. This guides the University of Rwanda management in taking any review required to see that human and other university resources are being used in the most effective and efficient way possible in achieving the university's objectives.

Lastly, task control defines how specific budget tasks will be executed or implemented, who will be in charge and who will supervise such tasks.

4.3.4 Purpose of Budgeting at the University of Rwanda

The study sought to investigate the purpose of budgeting at the University of Rwanda. Questions were constructed on a five-point Lickert scale where SA=Strongly Agree, A=Agree, N=Neutral D=Disagree SD=Strongly Disagree. Table 4.2 shows the findings.

Table 4.2: Purpose of Budgeting at the University of Rwanda

Item	SA	A	N	D	SD	Total
Budgets promote coordination between various activities	40.4%	34%	19.2%	6.4%	-	100%
Budgets enable effective resource allocation	79.6%	12.2%	-	8.2%	-	100%
Budgets encourage transparency in resource utilization	63.3%	18.3%	8.2%	4.1%	6.1%	100%
Budgets communicate institutional goals	67.3%	12.2%	6.1%	4.1%	10.3%	100%
Budgets primarily create cost reduction	38.8%	16.3%	14.3%	20.4%	10.2%	100%

Source: Primary data, 2015

Table 4.2 shows that most respondents agree to the statements on the purpose of budgeting at the University of Rwanda. It was established that budgeting at University of Rwanda promotes coordination between various activities (74.4%) and enable effective resource allocation (91.8%). This indicates that budgeting process promotes teamwork between various departments and staffs. With effective resource allocation, it is worth to argue that budgeting ensures that all funds are put to proper and intended use. The study also established that budgets encouraged transparency in resource utilization (81.7%). This signifies the reduction in resource theft at the university since activities' expenditures are budgeted for. Another purpose of budgeting at University of Rwanda was that the process communicates institutional goals (79.5%). This can be attributed to the fact that budget identifies the activities/projects and how much funds to be allocated for such activities which informs stakeholders about the goals and priorities of the university. Lastly, respondents agreed that budgets primarily create cost reduction (55.1%). It is to be argued that during budgeting, the quality and cost-based approach to costing is adopted by the University.

Data from the interviews also provided mixed results with some respondents arguing that the budgeting process at the University is intended to guarantee continuity of operations, ensure effective coordination between various staffs and departments and effective resource allocation. This shows the extent of budgeting urgency at the University of Rwanda.

The available literature also agrees with the above findings by indicating that budgeting is used to promote co-operation between various departments and facilitate effective resource allocation between various activities (Kaplan & Cooper, 2005), reduce costs, encourage transparency and accountability (Smith, 2007). On the other hand Drury (2004) argues that in some occasions, budgeting

4.3.5 Effectiveness of the budgeting process at the University of Rwanda

The study also investigated the effectiveness of budgeting process at the University of Rwanda. This aimed at determining whether the budgeting framework is capable of achieving the intended objectives. Table 4.3 shows the results.

Table 4.3: Effectiveness of the budgeting process at the University of Rwanda

Item	SA	A	N	D	SD	Total
Our budgeting is always strategically planned	83.8%	10.2%	6.%	-	-	100%
I always participate in the budgeting process	93.9%	6.1%	-	-	-	100%
We often review and revise our budgets	67.3%	20.4%	4.1%	8.2%	-	100%
We create a formal budget for a	73.5%	18.4%	-	-	8.1%	100%

business year						
We use a formal budgeting cycle (i.e. planning, developing, implementation, control)	85.7%	10.2%	4.1%	-	-	100%
We use our executives' experience to budget costs	69.4%	12.2%	4.1%	8.2%	6.1%	100%
Our budgeting is always based on the available cash revenues	91.8%	2.0%	6.2%	-	-	100%
The purposes of the budget are communicated to the whole institution	98%	2.0%	-	-	-	100%
Our budgeting process considers government rules and regulations	63.3%	16.3%	10.2%	6.1%	4.1%	100%

Source: Primary data, 2015

According to table 4.3, it was established that 91.8% agreed that University of Rwanda's budgeting is always strategically planned. This signifies that the budgets of the University are developed in line with the strategic plan to ensure that there is harmony of priorities. Secondly, all respondents (100%) agreed that the always participated in the budgeting process of the University. This indicates that there is effective participatory budgeting which ensures that interests of various stakeholders in the University are covered by the budget. It was also agreed that University of Rwanda often reviewed their budget (87.7%). This signifies that there is flexibility among the budgeting staff which ensures that any gap is identified and closed during the budget implementation. Findings also show that University of Rwanda creates a formal budget for a business year (91.9%). This formal budget signifies that budgeting is done annually and this minimizes time and resource wastage on petty and recurrent budgets. In terms of budget phases, 95.9% of respondents agreed that University of Rwanda follows a formal budgeting cycles (identification of priorities, planning, formulation, implementation, monitoring and evaluation as illustrated by figure 4.5). This indicates that budgeting staffs are committed to ensure that all procedures are observed. Furthermore, the study found out that University of Rwanda used executives' experience in budgeting for costs (81.6%). This finding signifies that expert advice is sought before the formulation and approval of the University budget. It was also agreed that budgeting is always based on the available cash revenues (93.8%). This indicates that there is careful forecasting to ensure that resources will be available to meet the budget requirements. Regarding information sharing, 100% agreed that the purposes of the budget are communicated to the whole institution. This indicates that University of Rwanda stakeholders participate in the process whose goals are communicated in advance in order to allow them make informed decisions and contributions to the budget process. Lastly, it was agreed that the budgeting process at University of Rwanda considered government rules and regulations (79.6%). As a public institution, this indicates that University of Rwanda is a law-abiding entity that prioritizes its relationship with the central government.

Interviews with selected respondents also helped in explaining how various budgeting variables influence the effectiveness of the budgeting process at the University of Rwanda.

Firstly, interviews revealed that setting budgeting goals help the management team to remain on track in regard to budgeting priorities. At the University of Rwanda, during interview, respondents argued that a budget system consists of the elements that show how money is to be spent within the institution for the short and long terms. Therefore, the University of Rwanda uses budget objectives to accomplish goals for growth and sustainability with the finances at hand. It helps the budget implementation team to spend money on what it was budgeted for.

Pertaining to stakeholder participation in budgeting, respondents revealed that giving all stakeholders a chance to participate and contribute ideas to the budgeting process helps them to understand and own the budget. This becomes easy when such a budget is presented to them for implementation.

Regarding budget reviews, respondents revealed that University of Rwanda budgets are created on an annual basis for the upcoming year and are then reviewed periodically throughout the year to compare actual results with budgeted amounts. The goals are measured against the set targets to determine what has been achieved, the gaps and recommendations if any.

In terms of budgeting frequency, interviews further revealed that budgeting at University of Rwanda is conducted annually in line with the national planning authority which disburses funds annually.

The above findings corroborate the scholarly work of Schutte (1993) who revealed that an effective budgeting process for an institution of higher learning should be strategically planned, participatory and reviewed regularly to close any budgetary gaps. Additionally, Massy (1993) argues that effective budgets should be formalized annually, pass through all the phases of budgeting. (Planning, developing, implementation, monitoring and evaluation). However, the author indicates that relying on the executives' sole experience to budget costs interferes with the participatory nature of budget planning. Cohn and Geske (1990) also argued that good budgeting process should be based on the available resources and that stakeholders should be informed of the major objectives of budgeting as well as budgeting within the scope of government regulations.

4.3.6 Contribution of budgeting towards performance of the University of Rwanda

In order to establish the benefit of budgeting, the study also sought to examine how this process has contributed to the performance of the university. Various performance measures were used on a five point Lickert scale where SA=Strongly Agree, A=Agree, N=Neutral D=Disagree SD=Strongly Disagree. Table 4.4 shows the findings.

Table 4.4: Contribution of budgeting towards performance of the UR

Item	SA	A	N	D	SD	Total
Our participatory budgeting has promoted teamwork in UR	65.3%	12.2%	-	6.2%	16.3%	100%
Our budgeting has helped to improve academic research and innovation at the university	57.1%	12.2%	16.3%	8.2%	6.2%	100%
Budgeting has helped increase the ratio of staffs to students	69.4%	20.4%	-	10.2%	-	100%
We have adequate academic resources such as textbooks, ICT equipments, etc through our effective budgeting	89.8%	6.1%	-	-	4.1%	100%
We have managed to increase our lecture rooms through effective budgeting	79.6%	14.3%	2.0%	4.1%	-	100%
We have increased our scholarly publications	38.8%	51%	4.1%	6.1%	-	100%
Our graduates can easily get employed	73.5%	8.2%	18.3%	-	-	100%
Our graduates are perform well wherever they are employed	36.7%	28.6%	30.6%	4.1%	-	100%
We are regularly sponsor our staffs for further training	69.4%	20.4%	6.1%	-	4.1%	100%

Source: Primary data, 2015

As table 4.4 shows, it was established that the budgeting process has positively contributed to the performance of the University of Rwanda. It was agreed that participatory budgeting has helped to ensure that staffs offer quality services both academic and non-academic (81.7%). This signifies that budgeting ensures that staffs are fully equipped with resources and motivated to reach institutional goals.

Similarly, 69.3% agreed that budgeting at University of Rwanda has facilitated an improvement in academic research and innovation at the University. This indicates that during the budgeting process, research and development is given priority which facilitates the University's researchers to research into various academic fields. In terms of staffing, 89.8% agreed that budgeting has helped to increase the ratio of staffs to students. This signifies that the University's staffing requirements have been achieved through proper budgeting which helps to promote academic performance.

In terms of academic resources, 95.9% of respondents agreed that the University of Rwanda is fully equipped with scholarly resources through effective budgeting. Since the major aim of the University of Rwanda is to promote academic excellence, this signifies that the budgeting staff put emphasis on scholastic materials which increase scholarly resources of the University. It was further agreed that University of Rwanda has increased lecture rooms through effective budgeting (93.9%). Since academic space is one of the factors that facilitate learning, it ought to be argued that budgeting prioritizes knowledge and skills transfer between students and lecturers. Additionally, 89.8% of respondents agreed that University of Rwanda has increased scholarly publications because of budgeting. This signifies that the funds allocated for research are effectively put into use in the publication of research findings such as in periodical reviews and journals. In terms of employment, 81.7% agreed that University of Rwanda graduates easily get jobs after school. This signifies the value attached to and the quality of the University's graduates in the labor market. On job performance, 65.3% of respondents agreed that University of Rwanda's graduates perform well wherever they are employed. This signifies the existence of high quality training which is facilitated by the budgeting process that gives priority to it. Lastly, 89.8% agreed that University of Rwanda through its budget component of Human

Resource development regularly sponsors her staffs for further training to improve their teaching and administrative skills. This signifies that the budgeting process prioritizes quality and skilled personnel which improves the overall performance.

Through interviews with staffs, other improvements at the university were identified. These included changes in employee behavioral/attitudes, structural outcomes, operational outcomes and student learning outcomes.

In terms of employee behavioral/attitudes, it was revealed that the adoption of participatory budgeting which involves all stakeholders in the budgeting process has promoted a spirit of teamwork among all staffs at the university. One respondent revealed that "*now staffs are consulted during the budgeting process, we have come to learn that knowledge sharing is very important if this university is to move forward*"**.**

Interviews revealed that University of Rwanda has also registered structural change as a result of effective budgeting. It was noted that there has been a deep and impactful change at University of Rwanda which has completely altered the way the institution functions. The changes reported for example, included change in the flow of authority, reporting and responsibility as a result of the establishment of University planning unit. It was noted that this structural change in University of Rwanda has shifted the institution's parameters.

Operational Outcomes are outcomes that deal with functions, demand, resources and efficiencies at the University. These operational outcomes that were reported to have improved included high staff retention rates, high student graduation rates, higher percent of University of Rwanda graduates continuing to post-graduate schools, higher percent of University of Rwanda graduates continuing to employment, reduction in cost per student to deliver service/instruction, high office/service/course utilization rates and satisfaction of stakeholders with services provided by University of Rwanda. It was reported that data on such issues are gathered through periodic surveys.

Student learning outcomes were also discussed during interviews. These are performance outcomes that describe the desired learning that has taken place in order to achieve a stated course/department/program goal. Examples of student learning outcomes that were reported to have been achieved due to effective budgeting include improvement in student communication (oral and written), critical thinking, computer skills due to computer purchases, teamwork, professional/technical competency, productivity and research skills.

The above findings are consistent with Esen and Collison (2005) and Chevaillier (1993) who argue that involving staffs in the organizational strategic, budgeting and business planning improves their self esteem which promotes teamwork, knowledge sharing and organization-wide productivity. Furthermore, Massy (1996) indicates that allocating available resources effectively promotes research and innovation, encourages publication of scholarly pieces of work. Kraan (1996), Bank (2012) and Massy (1996) also argue that in a higher learning institution, good budgeting improves student to teacher ratio, increases the available scholastic materials, improves academic space e.g. lecture rooms, etc. Lawler and Mohrman (1996) indicate that good budgets also facilitate staff training and development to acquire quality skills.

4.3.7 Pearson correlation

The study also carried out a Pearson correlation to determine the relationship between budgeting process and performance at the University of Rwanda. Table 4.5 shows the findings.

Table 4.5: Pearson correlation

		Rating the Role of Budgeting in management of UR	Level of performance in UR
Rating the Role of Budgeting in management of UR	Pearson Correlation	1	.827**
	Sig. (2-tailed)	.	.000
	N	60	60
Level of performance in UR	Pearson Correlation	.827**	1
	Sig. (2-tailed)	.000	.
	N	60	60

Source: SPSS v16.0 **Correlation is significant at the 0.01 level (2-tailed)

As table 4.5 indicates, the Pearson correlation showed that there is a relationship between budgeting process and performance at the University of Rwanda. The positive relationship is shown by a positive Pearson correlation value (0.827**) with the level of significance (P=0.01). The significance (P=0.01) shows that the relationship between budgeting process and performance is significant.

4.3.8 Problems affecting budgeting process at the University of Rwanda

The study further investigated the problems affecting the budgeting process at the University of Rwanda. This was aimed at determining the policy recommendations for improvement of the budgeting process. Table 4.6 shows the responses which were constructed on a five-point Lickert scale where SA=Strongly Agree, A=Agree, N=Neutral D=Disagree SD=Strongly Disagree.

Table 4.6: Problems affecting budgeting process at the University of Rwanda

Item	SA	A	N	D	SD	
Our budgets concentrate on cost reduction and not on value creation	4.1%	14.3%	18.4%	51%	12.2%	100%
Our budgeting process tends to be bureaucratic and discourage creative thinking	77.5%	12.2%	6.2%	4.1%	-	100%
Budgeting is time consuming and costly to put together	69.3%	12.2%	11%	7.4%	-	100%
Budgets are not frequently updated	43%	12.2%	11%	7.4%	-	100%
Budgets are based on unsupported assumptions and guesswork	30.6%	48.9%	8.2%	12.2%	-	100%
Budgets encourage gaming and perverse behavior	8.2%	6.1%	14.3%	38.8%	32.6%	100%
Budgets strengthens vertical command and control	57.1%	20.4%	8.2%	6.1%	8%	100%
Some budgeting team members lack financial management skills	40.8%	36.7%	8.2%	6.1%	8.2%	100%

Source: Primary data, 2015

As table 4.6 shows, respondents were requested to agree or disagree on whether University of Rwanda budgeting faced the challenges in table 4.6. Accordingly, 72.2% disagreed with the statement that University of Rwanda budgets concentrated on cost reduction and not on value creation. This signifies that the budgeting processes prioritized value addition of both staffs and students at the University.

On the other hand, 89.7% agreed that University of Rwanda's budgeting process tended to be bureaucratic and discouraged creative thinking. Considering that University of Rwanda is a public institution, it must follow government budgeting regulations which tend to delay the budgeting process. It also means that the budgeting staffs have to abide by all the rules which inhibit creativity. Thirdly, 81.5% agreed that budgeting at University of Rwanda is time consuming and costly to put together. This signifies that some activities and resources are sacrificed during budgeting and this negatively affects project/activity scheduling. Furthermore, 100% also agreed that University of Rwanda budgets were not frequently updated. This signifies that procurement will not take place if there is price increase after budget formulation. It was also agreed that University of Rwanda budgets were based on assumptions and guesswork (79.6%). Like any other budgeting entity, this means that the budgeting staffs could quote unrealistic prices or embark on an ambitious project when they are not sure of the availability of funds from the central government. However, 71.4% disagreed with the statement that budgets encouraged gaming and perverse behavior. This signifies that University of Rwanda has adopted the country's policy of zero tolerance to corruption. Additionally, it was agreed that budgets strengthened vertical command and control (77.5%). This signifies that there was no decentralization and staffs could not make a budgetary decision without approval from the University of Rwanda top administration. This may restrict flexibility and creativity at the University. Lastly, 77.5% agreed that some budgeting team members at University of Rwanda lacked financial management skills. This signifies that there is always no common knowledge on the source of funds and how it should be allocated across different projects/activities.

Interviews were also conducted in order to allow respondents give their free opinions on what they felt were the problems encountered during the budgeting process at University of Rwanda. A cross section of interviewees revealed that budgeting was time consuming and expensive, there was limited managerial skills among some budgeting staffs, budgets were too rigid and prevent fast response and budgets reinforced a dependency culture where the University had to wait for funding from the central government rather that initiating internal revenue generating projects.

4.4 Analysis of secondary data

In order to supplement primary data obtained from the questionnaire and interview guide, the researcher also consulted secondary data sources from University of Rwanda particularly, the annual budgets for 2011-2015 in order to determine how funds have been allocated to key activities/projects at the University.

4.4.1 Budget expenditure for the period 2011-2015

Table 4.7 shows the budgetary allocations for the period under study.

Table 4.7: Budget expenditure for the period 2011-2015

Item	**Financial Year**			
	2011/2012	**2012/2013**	**2013/2014**	**2014/2015**
Staff salaries and other benefits (%)	50	48	51	53
Human Resource Development (%)	5	6	6	3
Research and innovation/ development (%)	7	9	8	9
Infrastructure (%)	14	13	14	15
ICT and laboratory equipment (%)	9	8	7	5
Furniture (%)	4	5	3	2
Water,	3	4	2	3

sanitation and hygiene (%)				
Others	8	7	9	5
Total (Rwf)	**37,814,572,054**	**41,444,122,331**	**42,694,381,401**	**46,645,318,628**

Source: University of Rwanda Financial Report, 2011-2015

As shown in table 4.7, staff salaries and other benefits were allocated the biggest share of UR's annual budget in the period covered by this study. For example, they accounted for 50% of the total budget in the 2011/2012 financial year, 48% for the financial year 2012/2013, 51% for financial year 2013/2014 and 53% of the total budget for the financial year 2014/2015. This signifies that University of Rwanda that economic wellbeing affects the performance of an individual; the university prioritizes employee remuneration in order to boost their extrinsic motivation which drives performance.

The university's budget also prioritizes Human Resource Development in order to improve on their human resource capacity and performance. In the 2011/2012 budget, 5% of the funds was allocated to Human Resource Development and this was increased to 6% in both the 2012/2013 and 2013/2014 financial years before declining to 3% in 2014/2015. This signifies that University of Rwanda as a prestigious public institution in Rwanda is committed to improving the skills and knowledge of their staffs in form of sponsoring some of their academic studies and well as short term training.

Regarding research and innovation/ development, University of Rwanda also prioritizes this component that improves University status because the major contribution of academic institutions in national building is to foster research, innovation and development. In the 2011/2012 financial year, 7% of the budget was allocated to this budget component, 9% was allocated in the 2012/2013 financial year, 8% for the 2013/2014 financial year and 9% for the 2014/2015 financial year.

The budgeting process was also responsive to the infrastructure needs of the University. In the 2011/2012 financial year, the University allocated 14% of the budget to this budget component. As for the financial years 2012/2013, 2013/2014 and 2014/2015, infrastructure was allocated 13% 14% and 15% of the budget respectively.

In terms of technological progress at the university, ICT and laboratory equipment have also been given attention during the budgeting process. This budget component was allocated 9% of the university's budget in the FY 2011/2012. For 2012/2013, 2013/2014 and 2014/2015, the budget allocation to this item was 8%, 7% and 5% respectively. This signifies that as the country strives to be a regional ICT hub, the public University is committed to be an engine of this progress by funding the development and acquisition of ICT knowledge and skills.

Furniture is also a vital budget component that affects performance at the university as it facilitates learners and teachers during knowledge sharing and transfer. For example, the UR budget committee allocated 4% of the 2011/2012 budget to furniture while 5%, 3% and 2% were allocated to the same component for the financial years 2012/2013, 2013/2014 and 2014/2015 respectively.

For water, sanitation and hygiene, the budget allocation was 3%, 4% 2% and 3% for the financial years 2011/2012, 2012/2013, 2013/2014 and 2014/2015 respectively. This testifies the commitment of the budgeting committees towards a clean, health and hygienic environment which affects the performance of both staffs and students.

4.4.2 University of Rwanda Performance indicators (2011-2015)

In order to determine how budgeting at the University of Rwanda has affected performance, the researcher also examined various performance indicators. Table 4.8 shows the indicators that were assessed to determine their trend in the period of the study.

Table 4.8: Performance indicators (2011-2015)

Indicator	**Financial Year**			
	2011/2012	**2012/2013**	**2013/2014**	**2014/2015**
Student enrolment	27,209	27,644	28,122	28,800

Scholarly publications	31	42	45	12
Academic staffs	1476	1503	1486	1531
Administrative and support staffs	1199	1220	1235	988
Staffs trained (Masters and PhDs)	45	51	66	88
Academic programs	89	89	94	102

Source: University of Rwanda, Facts & Figures, March 2014

As table 4.8 shows, University of Rwanda has improved on its performance indicators over the period of our study. This may be attributed to effective budgeting practices which ensure that the University has the needed resources all the time to facilitate both academic and non-academic progress of the institution. As a performance indicator, student enrollment for the University of Rwanda has progressively increased from 27,209 students in the 2011/2012 academic year to 28,800 in the 2014/2015 academic year.

The University also increased on the number of scholarly publications in the same period. For example, 31, 42, and 45 scholarly publications were published in the period 2011/2012, 2012/2013 and 2013/2014 respectively. It is only in the 2014/2015 academic year that University publications declined to 12 due to merging of former Higher Learning Institutions, but 38 research projects have been awarded to University of Rwanda Academic staff to conduct research in Sciences based and non-Sciences based are ongoing. Nevertheless, this indicates that University of Rwanda has prioritized academic research in its budgeting process.

The number of academic staffs has also been increasing which indicates that there is a narrow student to teacher ratio. This favors learning and academic performance among students. For example, academic staffs at University of Rwanda increased from 1476 in the 2011/2012 academic year to 1503 in the 2012/2013 academic year, 1486 in the 2013/2014 academic year and then to 1531 in the 2014/2015 academic year.

The University of Rwanda budgeting process has also facilitated an increase in the number of administrative and support staffs. For example, in the 2011/2012 academic year, the number of administrative staffs increased from 1199 to 1220 in 2012/2013, 1235 in 2013/2014 and later declined to 988 in the 2014/2015 academic year. This indicates that University of Rwanda budgeting team considers administrative and support staffs as important personnel for improving service delivery at the university.

In terms of Human resource development, UR budget also prioritized staffs training for both Masters and PhDs programs. In the 2011/2012 academic year, 45 staffs were sponsored by the university to do Masters and PhDs and this number increased to 51, 66 and 88 in the academic year 2012/2013, 2013/2014 and 2014/2015 respectively. The increased university spending on HR development indicates that the budgeting process is an integral part of improving service quality and university performance.

Effective budgeting has also led to an increase in the number of academic programs at the university. This is because effective resource allocation means that funds are availed to facilitate the teaching and establishing infrastructure for new programs. I the academic year 2011/2012, there were 89 academic programs at University of Rwanda. However, the number increased significantly to 89, 94 and 102 programs in the academic year 2012/2013, 2013/2014 and 2014/2015 respectively.

4.5 Chapter Summary

The above findings show that budgeting is an effective tool for effective performance at the University of Rwanda. This chapter analyses the purpose of budgeting at UR, effectiveness of the budgeting process, contribution of budgeting to the performance and the problems faced in the budgeting process at the university.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter presents the summary of findings, conclusion and recommendations derived from analyzed data in chapter four. The chapter is presented in themes with respect to the study objectives. These themes include: i) the purpose of Budgeting at University of Rwanda, ii) the effectiveness of the budgeting process at University of Rwanda, iii) the contribution of budgeting to the performance of University of Rwanda and iv) the problems encountered in the budgeting process at University of Rwanda.

5.1 Summary of findings

Regarding the budgeting cycle, the study found out that budgeting process at the University of Rwanda passes through six phases. These phases include identifying budget priorities, budget planning, budget formulation, budget implementation or execution, budget monitoring and budget evaluation. It was also revealed that there are other intertwined activities in these phases such as budget forecasting, management control and task control which reinforce the budgeting cycle.

The study sought to investigate the purpose of budgeting at the University of Rwanda. Findings show that budgets are formulated at the University of Rwanda because they promote coordination between various activities (74.4%), enable effective resource allocation between various activities and projects (91.8%), encourage transparency in resource utilization (81.7%). It was also revealed that budgets at the University of Rwanda are designed to communicate institutional goals (79.5%) and encourage cost reduction (55.1%).

In regard to the effectiveness of the budgeting process at University of Rwanda, the study established that University of Rwanda's budgeting is always strategically planned to fit into long term goals (91.8%), participatory (100%), regularly reviewed (87.7%) and formulated annually (91.9%).

In terms of budget phases, University of Rwanda follows a formal budgeting cycle, that is, identification of priorities, planning, formulation, implementation, monitoring and evaluation (95.9%). Furthermore, the study found out that University of Rwanda used executives' experience in budgeting for costs (81.6%) and budgeting is always based on the available cash revenues (93.8%). Regarding information sharing, the purposes of the budget are communicated to the whole institution (100%) and government rules and regulations are respected (79.6%).

With regard to its contribution towards performance of the University of Rwanda, the study found out that budgeting has helped to improve University ranking (98%) nationally, regionally and globally, participatory budgeting has promoted teamwork and helped to ensure that staffs offer quality services both academic and non-academic (81.7%).

Similarly, budgeting at University of Rwanda has facilitated an improvement in academic research and innovation at the University (69.3%). In terms of staffing, budgeting has helped to increase the ratio of staffs to students (89.8%). Furthermore, the university is fully equipped with scholarly resources through effective budgeting (95.9%), University of Rwanda has increased lecture rooms (93.9%) because of effective budgeting.

Additionally, University of Rwanda has increased scholarly publications (42.9%), her graduates easily get jobs after school (81.7%), perform well wherever they are employed (65.3%) and University of Rwanda has trained highly qualified and skilled staffs through the budgeting process.

Problems affecting budgeting process at the University of Rwanda were also identified. It was established that University of Rwanda's budgeting process tended to be bureaucratic and discouraged creative thinking (89.7%), budgeting at University of Rwanda is time consuming and costly to put together (81.5%) and that University of Rwanda budgets were not frequently updated (100%). It was also established that University Rwanda budgets were based on assumptions and guesswork (79.6%) and only strengthened vertical command and control (77.5%). Lastly, findings show that some budgeting team members at University Rwanda lacked financial management skills (77.5%).

5.2 Conclusions

The study is an assessment of budgeting as a tool for effective performance of public institutions in Rwanda. Its aims are to determine the objective of budgeting in University of Rwanda, find out whether budgeting is effective, how the process contributes to the performance of University of Rwanda. It is also aimed at identifying the budgeting constraints in University Rwanda.

As practices by other institutions of higher learning, it is noted that budgeting at University of Rwanda is intended to achieve several goals. These were confirmed as setting budget priorities, planning expenditures to pursue a long-term vision for development, exercising financial control over inputs, managing operations to ensure efficiency of the university's operations and providing tools for making university performance accountable to all stakeholders. It also is aimed at promoting transparency and effective resource utilization.

At the University of Rwanda, the effectiveness of the budgeting process is indicated by the participatory nature of the process that was identified, periodic budget reviews, use of available revenue as a benchmark and effective communication.

The contribution of the budgeting process at the university can be witnessed by various positive performance indicators that were identified especially student-lecturer ratio, scholarly publications, research and innovation, staff training, student enrolment and academic programs.

Nevertheless, budgeting is affected by various challenges like bureaucracy, unsupported guesswork and inadequate financial management skills among some staffs. The study therefore recommends that budgeting staffs be trained in financial management, budgeting hierarchy should be made horizontal rather than vertical to allow free exchange of ideas, hiring budgeting experts to support the university staffs, encouraging flexibility rather than relying on assumptions and regular update of the university budgets.

5.3 Recommendations

University of Rwanda management should adopt flexibility and allow budgeting staffs to adopt new ideas in budgeting rather than adhering to the institution's bureaucratic and strict budget process which is a barrier to change.

University of Rwanda should regularly train its budgeting staffs on new methods of financial management. This will help them to improve on their budgeting skills.

University of Rwanda management should ensure that the University's budgets are frequently updated to match with the changing social-economic conditions brought by inflation. This will help to speed up the procurement process in case of price changes.

University of Rwanda management should initiate other income generating projects to enable it generate revenue for financing its activities. This will reduce overdependence on the central government.

Future researchers should endeavor to conduct a study on the role of University of Rwanda management in budgeting process. This is because the management have a big influence on the budgeting process and the role they play may impact the effectiveness of the budget implementation.

5.4 Chapter summary

This chapter has examined the summary of findings arising from the both primary and secondary data. It also highlights the conclusions and recommendations of the study.

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APPENDICES

Appendix I: Questionnaire

Dear Respondent,

This questionnaire is indented to facilitate the study on “Budgeting as management tool for effective operational performance in Public Institutions in Rwanda. Case study University of Rwanda. The study is for academic purpose and is carried out as partial fulfillment of the award of a Degree of Master of Science in Accounting of the University of Rwanda. Your responses will be treated with utmost confidentiality. In order to accomplish the study, you are requested to complete this questionnaire.

Section 1: Respondents’ background information

1. Age **(Tick one)** ☐ 18-24 ☐ 25-34 ☐ 35-44 ☐ 45-54 ☐ 55-and above

2. Gender ☐ Male ☐ Female

2. Educational qualification attained **(Tick one)** ☐ PhD ☐ Masters Degree ☐ Bachelor’s Degree ☐ Other qualifications (specify)

4. How long have you worked with University of Rwanda? ☐ 0-2 years ☐ 2-4 years ☐ 4-6 years ☐ 6+years

How long have you actively participated in the budgeting process at the University of Rwanda? ☐ 0-2 years ☐ 2-4 years ☐ 4-6 years ☐ 6+years

For items in the sections 2-6, tick against the appropriate answer choice in the Lickert Scale where 5=Strongly Agree, 4=Agree, 3=Neutral 2=Disagree 1=Strongly Disagree

Section 2: Purpose of Budgeting at the University of Rwanda

	Item	5	4	3	2	1
1	Budgets promote coordination between various activities/departments					
2	Budgets enable the effective resource allocation					
3	Budgets encourage transparency in resource utilization					
4	Budgets communicate institutional goals					
5	Budgets primarily create cost reduction					

Section 3: Effectiveness of the budgeting process at the University of Rwanda

	Item	5	4	3	2	1
1	As a stakeholder in this institution, I participate in the budgeting process					
2	We often prepare budgets					
3	We often review and revise our budgets					
4	We create a formal written budget for a business year					
5	We use a formal budgeting cycle (i.e. planning, developing, implementation, control)					
6	We use our executives experience to budget costs					
7	Our budgeting is always based on the available cash revenues					
9	The purposes of the budget are communicated to the whole institution					
10	Our budgeting always observe government rules and regulations					

Section 5: Contribution of budgeting towards performance of the UR

	Item	**5**	**4**	**3**	**2**	**1**
1	The budgeting process has helped to improve staff productivity to achieve the set goals					
2	Participatory budgeting has helped to ensure that staffs offer quality services					

3	Our participatory budgeting has promoted teamwork in UR					
4	Our budgeting has helped to improve research and innovation at the university					
5	Budgeting has helped to look for effective ways of mobilizing revenues					
6	Our university library has been fully equipped through our effective budgeting					
7	We have managed to increase our lecture rooms through effective budgeting					
8	Our student accommodation is guaranteed through effective budgeting					

Section 6: Problems encountered during preparation and implementation at the University of Rwanda

	Item	5	4	3	2	1
1	Our budgeting process is rarely strategically focused					
2	Our budgets concentrate on cost reduction and not on value creation					
3	Our budgeting process tends to be bureaucratic and discourage creative thinking					
4	Budgeting process constrains flexibility and is a barrier to change					
5	Budgeting is time consuming and costly to put together					
6	Budgets are developed and updated too infrequently					
7	Budgets are based on unsupported assumptions and guesswork					
8	Budgets encourage gaming and perverse behavior					
9	Budgets strengthens vertical command and control					
10	Our budgeting team lack financial management skills					

Appendix II: Interview guide

Dear Respondent,

This interview is indented to facilitate the study on "Budgeting as management tool for effective performance in Public Institutions in Rwanda. Case study University of Rwanda". The study is for academic purpose and is carried out as partial fulfillment of the award of a Degree of Master of Science in Accounting of the University of Rwanda. Your responses will be treated with utmost confidentiality. In order to accomplish the study, you are requested to respond to the questions given.

1. For what specific reasons does the University of Rwanda carry out budgeting?

2. Explain the stages in the budgeting cycle at the University of Rwanda

3. Explain how the following variables influence the effectiveness of the budgeting process at the University of Rwanda.

   a) Setting the budget objectives
   b) Participatory
   c) Budget reviews
   d) Frequency of budgeting
   e) Availability of resources

4. Describe how the following steps in the budgeting cycle provide management with knowledge for effective performance at the University of Rwanda

   Use the following management aspects

   a) Forecasting;
   b) Management control;
   c) Task control;

5. How has the budgeting process affected the performance of the University of Rwanda? Use the following performance indicators

   a) Employee behavioral/attitudinal outcomes
   b) Structural changes within the institution

c) Operational outcomes

6. Explain the problems encountered during preparation and implementation at the University of Rwanda

7. How are those problems solved?

8. What is the impact of budgeting on UR performance?