

Budgetary Control Processes and Efficiency of Regulatory Authorities in Rwanda: A Case of Rwanda Utilities Regulatory Authority (RURA)

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Abstract

This research sought to determine the influence of budgetary control processes on efficiency of regulatory authorities, a case of Rwanda Utilities Regulatory Authority (RURA). This study was primarily done after the subsequent reports that emerged quoting poor performance in some Rwandan public institutions which was ordinarily been accredited to ineffective and inappropriate running of the budgetary control processes. The research is guided by specific objectives that include determining the effect of planning on the efficiency of Rwanda Utilities Regulatory Authority; to assess influence of budget preparation on efficiency of RURA; and to examine influence of internal audit on the efficiency of RURA. In order to reach the achievement of the above objectives, descriptive survey and correlative research designs were adopted. The population of this research involved one hundred sixty-eight (168) employees of Rwanda Regulatory Authority. With the help of Solvin's formula, the researcher assumed sample of 118 respondents were selected using stratified sampling technique. To collect research data, questionnaires, interviews, written documents and other institutional reports were used in this study. The study questionnaires were disseminated to a cluster of 118 respondents who filled and return them for analysis. The data were explored with an aid of SPSS which facilitated in testing the influence of budgetary control processes on the efficiency of regulatory authorities in Rwanda and RURA in particular. Correlation analysis and specifically, Pearson Correlation analysis was used to determine the nature and magnitude of the relationship between the study

variables. The findings revealed that 84.7% strongly agreed that planning aids in improving performance of RURA while 81.4% strongly agreed the fact that transaction data is stored in well-organized database due to planning and finally it was understood 73.7% strongly agreed that planning helps RURA in the focusing onto institutional capabilities. The findings have also revealed that there is a relationship between budgetary control process and efficiency regulatory because all calculated p-values are under 0.01 level of significance due to the relationship between Planning and Timelines ($p=.496$ and $sig=.000$), between Planning and Accountability ($p=.613$ and $sig=.000$) between Planning and Responsibility ($p=.507$ and $sig=.000$), between Budget preparation and Internal audits ($p=.580$ and $sig=.000$) between Budget preparation and Cost minimization ($p=.988$ and $sig=.000$) between Internal audits and Timelines ($p=.401$ and $sig=.000$), between Internal audits and Accountability ($p=.605$ and $sig=.000$), between Internal audits and Responsibility ($p=.451$ and $sig=.000$). budgetary control processes and efficiency in RURA and regulatory authorities in Rwanda in general.

OPERATIONAL KEY TERMS

Budget preparation is the procedure by which the financial assets made accessible to an agency are focused and controlled toward achieving the purposes and objects for which budgets were permitted. The procedure includes compliance with both legal and administrative necessities (Graham, 2015).

Planning is the process of identifying choosing and implementing activities that will enhance the long term performance of an organization by setting directions and by creating an ongoing compatibility between the internal skills and resources of an organization and the changing external environment in which it operates (Graham, 2015).

Efficiency is a level of performance that describes using the least amount of input to achieve the highest amount of output. Efficiency requires reducing the number of unnecessary resources used to produce a given output including personal time and energy (Farías and Pimenta, 2012).

1. INTRODUCTION

1.0 Introduction

Budgetary control processes are among others, an important subject that are researched about in the areas of accounting, finance and management. In this regard, the first chapter looks at the entire background and the motive of this research.

1.1 Background of the study

The beginning of budgetary control processes emanates way back in the time when man used stones to make life and survive. The first men could get meet and embark on the scheming and approximations of the means to acquire the basic needs for them to withstand a living. Budgetary control processes are indeed an important tool for management of the above engagements. In the USA, it is understood that the professional commercial environment was the stone of foundation as far as modern and upgraded public monetary practices and principles in the budgetary control processes in the early century of 20th. Indeed, a budget which is known as total cost proposal for the forthcoming time while the budgetary control processes comprises the apportionment of possessions so as to enable an association accomplish its goalmouths and intentions. Budgetary control processes may be termed as comprehensible and wide-ranging sequencer of achievement by which the administration and business community may get to successfully (Barahona & Elizondo, 2012).

Regulatory agencies in most European countries put it that financial audit roles are one of the greatest stranded strategies to curtain and progress association performance. Internal audits practices are a very important set ups for any possible better performance in whichever either Government or Non-governmental institutions. Budgetary control processes which is enables an agency as the events or

measures originated by an organization association such that to guarantee accomplishment of the element's marks, objectives and procedures. Many countries all over the world which may be affected economically, low productivity and high rate of dependency tend not to give much attention to budgetary control processes which later lead to corruption injustices(Hendriks, 2012).

In South Africa, the impacts and execution of greatest of the time, the King II Report on internal audits performs on agency's efficiency and effectiveness have not been clearly measured or the results reported. However, this is contributed by failure of regulatory agencies providing little guidance on how these evaluations should be performed. He suggests that this process should be customized for individual companies and that it cannot be a case of one size fits all. It confirmed that in any situation, states are obligated to formulate, inculcate, and improve their employees and administration on the most skillful technique to exploit these interior rheostat backgrounds because its appropriateness bases upon the entire capability not forgetting the dependability of the broad-spectrum of populace employing the system. The said and not said budgetary control processes activities pledge that in case of hazards which could in any case stimulus the agency's aptitude to complete its intentions are relevantly continued premeditated detachment (Paxton, 2012).

Since then, Government of Rwanda has prepared consolidated financial statement for each year with remarkable year-on-year improvement in terms of quality (accuracy and completeness) both at the Government wide consolidation level and at the individual reporting entities. The enhanced quality has been evidenced by the gradual and progressive increment in the number of reporting entities achieving unqualified (clean) audit opinions over the previous five financial periods. Timely submission and improved quality of the consolidated financial statements is as a result of efforts of the Office of Accountant General spearheading the consolidation exercise and cooperation from Chief Budget Managers and their finance staff in all public entities (MINECOFIN, 2015). Therefore, this study aimed at finding out an effect on the budgetary control processes and efficiency of regulatory authorities in with reference to Rwanda Utilities and Regulatory Authority.

1.2 Statement of the problem

Efficiency in the regulatory bodies is indeed a necessity and public organizations are always advised to certify incredibility to the entire

stakeholders' pronouncements while using the public resources to the enhancement of their respective efficiency and performance in general. To note is that performance in whichever sector necessitates the presence of an association amongst the national vision, mechanisms and results; and the results should be simultaneous exertion of proper budgeting, efficiency and effectiveness. When a public institution fails to meet its desired objectives as planned, it becomes a big threat to both the government and the general public who are the stakeholders (Egbide, 2015).

Despite government efforts to ensure efficiency, OAG (2015) revealed that there was Rwf11 billion in inefficient spending amongst the public agencies in the year, 2014 in comparison to billion worth Rwf1.6 which was reported in the year, 2013. These agencies were as well reported to have been associated with failures in budgetary control processes, with substantial errors which resulted in delayed implementation of some activities and misuse of public resources which greatly affected the government's objectives and vision. In addition, according to TI-Rwanda (2014), there was a rise in the mismanaged funds from 8.7% in 2012 to 11.9% in 2013 that were meant for project development funds budget at Rwanda Utilities Regulatory Authority. Therefore, it's on the above ground that quested for a study regarding the budgetary control processes and efficiency of regulatory authorities with reference to Rwanda Utilities Regulatory Authority.

1.3 Objectives of the study

These objectives included specific and general and they are the following;

1.3.1. General objective

Major or the general objective was to assess the influence of budgetary control processes on the efficiency of regulatory authorities in Rwanda.

1.3.2. Specific Objectives

They are outlined below:

- i) To determine the effect of planning on the efficiency of RURA;
- ii) To assess the influence of budget preparation on efficiency of RURA;
- iii) To examine the influence of internal audit on the efficiency of RURA;

1.6 Scope of the study

This work was done in the parameter where the researcher had to indicate the variables to be studied, like geographical, time and conceptual.

1.6.1 Content scope

The work had to be zeroed upon budgetary control processes of regulatory authorities in Rwanda, in particular at RURA and the impact it has on the efficiency level.

1.6.2 Geographical scope

The work was done from Rwanda Utilities and Regulatory Agency located at KN 39 Street in Kiyovu, Nyarugenge district in the heart of Kigali city. The study took a mockup of information from this institution in order to underlay the upshot of budgetary control processes and efficiency.

1.6.3 Time scope

An epoch of five years; ranging between 2014 and 2018 was adopted. More so, this period stood to being enough for the provision of necessary information regarding budgetary control processes and efficiency of regulatory authorities in Rwanda, especially at RURA.

2. REVIEW OF RELATED LITERATURE

2.0 Introduction

This part of the research report was done based on readings, and comparing reports of previous studies. It helped the researcher in appreciating, understanding and analyzing other researches done by other scholars in this particular or related area of interest. It thus presents the theories and reviews of budgetary control processes in relation to efficiency of regulatory agencies.

2.1 Theoretical Literature

This section of this research majorly entails the concepts about the variables, both the budgetary control processes and the independent variable, efficiency. It however, describes the concept of regulatory authorities since it's the study's focus. These theories enhanced the general understanding of the research topic.

2.1.1 The Concept of Budgetary Control Processes

In a well-organized budgetary control process, the budgets are prepared for all functional areas and are ought to be inter-dependent and inter-related. A proper co-ordination among different budgets is necessary for making the budgetary control process a success. The organization head is the overall in-charge of budgetary processes. He constitutes a budget committee for preparing realistic budgets and a budget officer is the convener of the budget committee who co-ordinates the budgets of different departments. The managers of different departments are made responsible for their departmental budgets (Paxton, 2012). The budgetary control processes which according to (Umble et al, 2013; Bourne, 2014) include planning; budget preparation and internal audit.

In budgetary control process, planning does vary founded on a number of practice situations of this terminology. In other words, the term "planning" is presently involved in a quite number and innumerable minds which are in some endangerment of sinking into a poignant clamor. Delineations for planning, in most cases, are speckled yet extraordinarily comparable in several means: a wide-ranging assessment of the collected works gives more than a few discussions of the term premeditated planning. Planning can be understood in public sector to be progression of classifying, selecting and instigating events which could augment the elongated stretch enactment of an institute by background instructions and by generating a fragmentary compatibility flanked by the interior assistances and possessions of an association and the exchanging exterior atmosphere in which it functions (Graham, 2015).

Budgetary control processes are indeed an important tool for management of the above engagements. In the USA, it is understood that the professional commercial environment was the stone of foundation as far as modern and upgraded public monetary practices and principles of budgetary control processes in the early century of 20th (Barahona & Elizondo, 2012).

Internal control and audit requires precarious incomes, procedures and standards. Precarious incomes comprise of the resources which backup up the regular business happenings for example; Individuals, expertise, merchandise schemes, products, purchaser and contractor associations, association administration with its consumers and contractors and promotion accomplishments. Precarious procedures involve judgement creating

etiquettes and management arrangements which back up processes of a prevailing corporate processes. Besides, administrative racial values, certainty organization and expectations ought to be precarious (Berger & Gregory, 2009).

2.1.2 The Concept of Efficiency

The image of efficiency measurement systems is still confusing because they are necessary, but can give rise to undesirable effects, contrary to expectations and are subject to the risk that perverse effect of performance measurement may eventually drive out the beneficial effect. The following include indicators of efficiency in regulatory agencies.

Murphy (2010) emphasized in microelectronic quantity and collection institution, information must be transferred to the user through announcement from the cradle to the terminus minus forfeiture of the required content. that with e-commerce collection, information is equivalent to the finished goods produced after processing data. With this kind of equitable and trusted information, the management of tax collection institutions finds it easy to supervise the staff hence better results. It is a information that has administered into form that is significant to the recipient and is of real and supposed value in the current or the standpoint actions or conclusions of the beneficiary.

Kenneth (2014) admonished that the use of budgetary control processes which necessitates interim technology increases habitué base which can provide additional security in several countries, such as in China, regulating authorities limit the number of outlets in geographical areas. Whether an outlet opens and when a branch opens therefore depends on administrative processes. Formal approval for each company branch opening is required in 78 percent of developing countries. In several countries, such as in Nigeria, physical inspection from the ministries and other administration representative is required like a for approval process, which may substantially delay a branch opening in remote areas.

According to Armand (2011), accountability is not unpredictable with organizational reform; neither entrepreneurial behavior nor increased discretion for professional managers' needs to result in diminished accountability in public sector. Embracing accountability mechanisms has appropriate measures to authenticate the correct identity and authorization of customers using not only the provision, but also to ensure that all transactions are legitimate. e-commerce instrument provides efficient and timely response and has adequate capacity in order to

support acceptable performance, and is able to recover quickly from disruptions.

2.1.3 The Concept of Regulatory Authority

A government agency that regulates is an autonomous institution or agency established by a republic, federal, state or provincial government. Certain regulatory authorities are established with the power to enforce regulations regarding different intentions in line with achieving a country's certain goals and vision. The regulatory authority drafts the projected guidelines to fulfill the requirements of the law upon which the regulation is based. For example, if a new law is passed by a parliament that limits challenges as a result of a set business, the authority will develop regulations that carefully outline the limits of the challenges, how the limits are measured, reporting requirements, enforcement powers vested in the agency, and consequences the agency is authorized to execute under the regulations (Joseph, 2013).

Republic of Rwanda's Vision is transmuting the country into an Information Rich Society and Economy development and it's through this Vision that Rwanda Regulatory Authority (RURA) was put in place. From way back in 1999, the Rwandan has been acknowledging the necessity to undoubtedly describe and state its complete Vision for the country in order to realize success in the economy and other aspects. From the beginning, the most important and viewed and put in place as Vision for Rwanda which has had three mechanisms that include: Global Vision, the Vision 2020 which a well-placed as charter for socio-economic expansion and then the last mechanism was ICT-led Development Vision which had been under the guidance of the Vision 2020 (NISR, 2015).

In line with the above, Rwanda Utilities Authority was put in place with a mandate within the ICT division is to provide licenses, supervise and implement license obligations, manage scarce resources, counsel policy makers on Information and Communication Technology (ICT) related issues and epitomize the nation on the international fora as regards to subjects relating to ICT. In other words, RURA as well enforces the Universal Access Policy in orthodoxy with the country's vision. As regards to the institutional policy of monetary advance as well as good ascendency, the Rwandan Government had no way out but to inaugurate RURA in order to subsidize to the accomplishment of its socio-economic intentions (Ibrahim and Dauda, 2014). The brochures of the Vision 2020 and the 2nd Economic Development and Poverty Reduction Strategy (EDPRS2) which were technologically advanced by

2013 and 2018 respectively had established the objective to realize income status by 2020 with a yearly development rate at 11.5% which had been supervised on a monthly basis for success (NISR, 2015).

2.2 Empirical Literature

This section termed as empirical literature review expresses the aforementioned and subsequently findings of the studies. Findings are dealt with in terms of scientific experiments, surveys and research studies in line with the current study. The described findings are grounded on the involvement and reflection, rather than on methodical logic as regards to planning, budget preparation and internal audit.

2.2.1 Planning

A study by Silva and Ariyaratna (2012) on effective planning and efficiency of Newfoundland and Labrador Province in Canada have shown strongly positive relationship whereby it was learnt that proper planning could lead to 81.4% improvement of efficiency in Apparel Industry. Choice of techniques and regression analysis were employed in investigating the relationship between the budgetary process and organizational effectiveness. A well designed and implemented financial organization is expected to contribute positively to the creation of a firms' value and high presentation reflects management effectiveness and efficiency in order to make use of the company's assets and this in turn subsidizes to the nation's economic development at a bigger sphere.

Research done by Gopinath (2015) indicated that regulatory authorities in most European countries put it that planning as budgetary control process roles are one of the greatest standard strategies to curtain and progress by 74.9% of the efficiency due to proper planning. Findings revealed that internal audits practices are a very important set ups for any possible efficiency in whichever either Government or Non-governmental institutions in Europe.

Moreover, in a study carried out by Nyageng'o (2014), he was meant to ascertain influence of the effective budget implementation on the performance amongst indigenous establishments in Kenya. In addition, the conclusions of this research exposed that effective monetary controller bettered enactment of local administration of public institutions with the assistance of appropriate planning. In the similar breath, it was recognized that 87.3% of the study respondents strongly agreed that there was positive effect of budgetary control on performance of Non-Governmental Organizations in Kenya measured by

R square at 14.3%. This research project concluded that budgetary participation affects return on capital employed, cost minimization to a great extent within the organizations.

2.2.2 Budget Preparation

A study carried out in South America by Shekhar (2013), he investigated the effect of budgetary preparation on efficiency that undertakes some specific phases upon justification and besides technology and institutional features which have predisposed the application and approval of managerial controls at the departmental level in Colombian and Argentinian public authorities. More research findings which was reached from public institutions and private sector organizations in Brazil revealed the role and difficulties for internal audit espousal by over 87.3% which could lead to efficiency. The study revealed that over 79.7% of the managers is ultimately the key to adopting budgetary control processes practices in Brazil and South American countries. Regime sustenance and conventions are also painstaking precarious factors for reassuring budgetary control processes systems in public institutions and performance significant purposes in overcoming difficulties, encounters and connected jeopardies in entire sector.

Kwebena (2013) did conduct a study of late in Zimbabwe and acknowledged the variables that predisposed the adoption of internal audits process, namely: top management support, organizational competency, audit independence, perceived benefits, perceived comparability, perceived complexity, supporting industries, and market and government willingness. The results of the study indicated that 76.4% of the top management support and commitment to modern budgetary control processes tools have a better chance of adopting audit. Furthermore, 67.0% of the public institutions in Zimbabwe with suitable audit independence and corporate possessions and appropriate infrastructure are more likely to embrace excellent performance happenings.

After their successful study, Barahona and Elizondo (2012), reiterated that budgetary control processes are a great medium of transacting businesses in public institutions for performance in Tanzania. It however requires 87.4% of precarious incomes, procedures and standards. Precarious incomes comprise of the resources which backup up the regular business happenings for example; Individuals, expertise, merchandise schemes, products, purchaser and contractor associations, association administration with its consumers and contractors and promotion accomplishments.

Precarious procedures involve judgement creating 76.3% of the etiquettes and management arrangements which back up processes of a prevailing corporate processes. Besides, 67.5% of the entire administrative racial values, certainty organization and expectations ought to be precarious.

2.2.3 Internal audit

In a study by Hoffmann (2017), he reconnoitered the effect of internal audit as regards to efficiency of the public institutions and service companies in Brazil. Data was also gathered disclosed the reasons and hindrances for internal audit approval. The study discovered that over 73.8% of the administrators are eventually the key to espousing internal audit practices in Brazil and South American countries. Government sustenance and guidelines are also considered dangerous elements at a rate of 75.1% for heartening financial audit implementation in public institutions and service companies and play key roles in overcoming difficulties, encounters and connected jeopardies in all-inclusive sector. The research engaged exploratory factor analysis and structural equation demonstrating, and acknowledged that the regulatory environment employed in the country is a major aspect that should be painstaking by public institutions and service companies considering adopting financial audit for stable performance.

Research by Horneff et al. (2016) did conduct a survey on Critical Factors that Influence Internal Audit Attainment in the Non-Governmental Organizations in Siri Lanka. These researchers initiated that despite the efforts put by the governments through reorganizations towards embracing of internal audit still vestiges a foremost encounter at level of 67.3% for many organization functions. The study outcomes added that efficacious enactment of internal audit recognized schemes and the criticism apparatus in Siri Lanka. They connected financial audit with enriched financial performance in most NGOs at the rate of 82.0%. In addition, the outcomes of research project by Naale et al. (2013) on internal audit revealed that financial audit facilitates the increase of trust degree mostly from all stakeholders which in turn enhances transparency and accountancy by 78.9% especially in the entire organization. The research further revealed that financial audit is associated with improved efficiency and enhanced banking operations. Other benefits of internal audit include: increased transparency satisfaction, improved professionalism in the institution functions improving public perceptions the economy.

After their successful study, Schmitt and Jankowitsch (2015) reiterated that internal audit is a

great medium of transacting businesses in NGOs for efficiency in Burundi and Uganda. Through internal audit practices like financial audit standards, financial audit independence, professional competency and internal controls are meant to boom simply through use of audit thereby leading to performance at the level of 85.0%. They added that African countries need to have real time updates about the Stock exchange's daily market status in order for them to develop an efficient investment mind. Audit also integrates a given economy into the global economy. Through financial audit, an economy is able access a global market due to transparency in the entire economy hence resulting into better balance of performance.

2.3 Critical literature review and gap identification

Most of the studies conducted on budgetary control processes and efficiency focused on firms and institutions in foreign countries. For example, Umble et al (2013) focused on North America, Anand, *et al*, (2014) focused on India, Joseph (2013) focused on the European Union while Woo (2013) 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 efficiency in regulatory agencies. This study intends at narrowing hypothetical gap by conducting the study on the local perspective to avail academicians and scholars with local content on budgeting and institutional performance. Additionally, available empirical studies on budgeting and organizational performance (Umble et al, 2013; Bourne, 2014) have tended to concentrate on profit making institution and given less attention to non-profit making institutions. Therefore, this contemporary work tries in closure of an alarm existing in budgetary control processes in relation to efficiency of regulatory agencies in particular Rwanda Regulatory Agency.

2.4 Theoretical Framework

This sub section titled theoretical framework contains of notions, together with their explanations, and existing theories that were adopted particularly in this project. This segment establishes a considerate of philosophies and notions that are relevant to the topic of this research and narrates it to the wider subject of the substance.

2.4.1 Budgetary control processes Model

To Barahona & Elizondo (2012), internal audits system is an instrument which is used by an organization as a charter for their expenditure and revenue apportionment. In order to guarantee the administration's possessions are never squandered, the institution must be make sure it is able to have an effective budgeting coordination. This is imperative as it safeguards the productivities formed and facilities conveyed for achieving the intentions of an organization. In regards to this theory, a respectable internal audits scheme ought to be capable of addressing the efficiency and effectiveness of the government's spending. For any decent and clear budget, it endeavors to be strongminded by the degree of revenue of that particular institution.

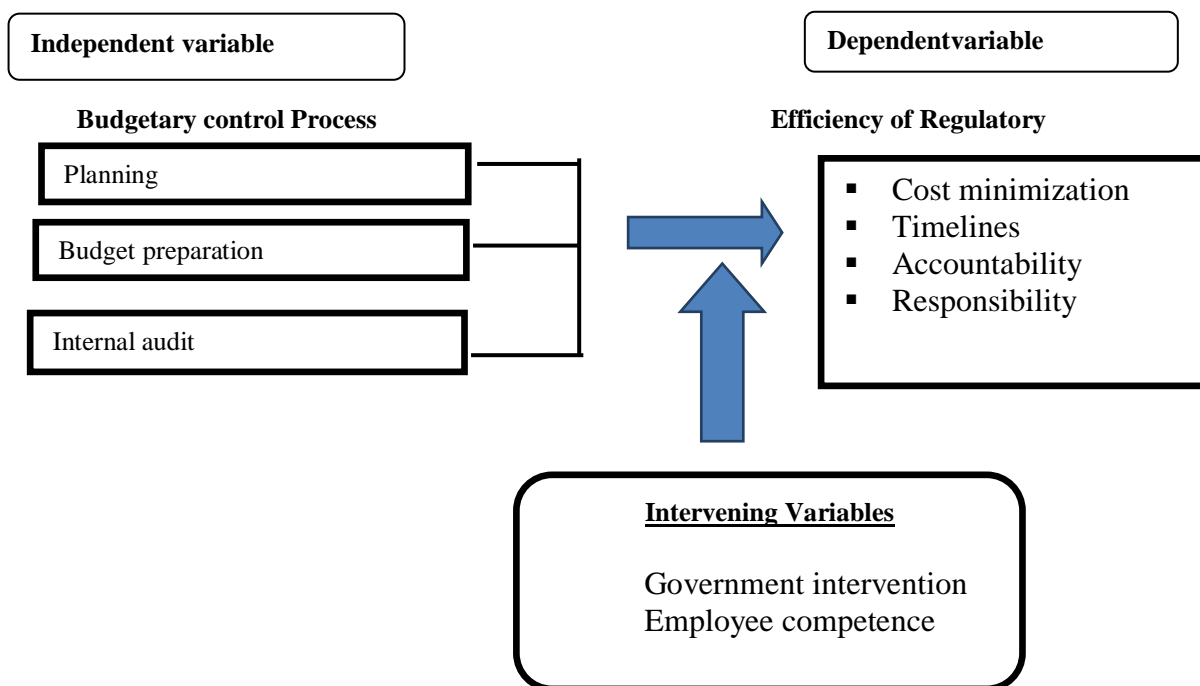
The institution or any agency ought to put appropriate joysticks which safeguard that the prepared budget is indeed both appropriately preserved and apportioned. An organization which may be able to track its procedures proficiently is capable of allocating further incomes for that specific institution of firm. All these can be realized with the help of slashing down the expenditure so that either the capacity or priority of these not only merchandises but service presented by the organization are increased and improved. Nevertheless, if a firm has slighter revenue they could have to discover means of funding their predictable budget through plagiarizing and tax reformation (Kenneth, 2014).

Modern public budgeting theory has not yet fully responded to the emergence of public collaborative efforts. Budgeting for collaboration is unique and distinct from the established four budgetary functions because: there are challenging interests with a public combined network at several levels, creating multiple lenses to view network efficacy, the accountability equation with a bureaucracy is altered when service is provided by a third-party, activity-based costing transforms from an internal management tool to defining levels of resource sharing, and the lack of institutional norms creates unique budgetary occasions in evolving interacted establishments. It is important to note that a preponderance of public collaborative networks do not involve a financial transaction and therefore do not have budgetary implication (Bourne, 2014).

2.5 Conceptual framework

This sub section portrays the concepts that were reviewed through breaking the sub variables into sub variables. These variables are broken down in the following.

Figure 2.1: Conceptual framework



Source: Researcher (2020)

According to Huppert (2011), budgetary control processes includes planning; budget preparation and execution; internal control and audit; and accounting and reporting. According to Barahona and Elizondo (2012) identified indicators of efficiency in a public institution as reduction of costs; significant time saving; equity resource sharing; accountability and responsibility; and capacity of the employees. Budget preparation is well-defined as the procedure by which the monetary incomes made obtainable to an agency are directed and meticulous toward accomplishing the resolutions and objects for which budgets were approved. These procedures contain acquiescence with both legal and directorial necessities (Graham, 2015).

Planning is defined as the process of identifying choosing and implementing activities that will enhance the long-term performance of an organization by setting directions and by creating an ongoing compatibility between the internal skills and resources of an organization and the changing external environment in which it operates (Graham, 2015). Efficiency is a degree of performance that designates using the least amount of input to accomplish the highest amount of output. Efficiency necessitates dropping the number of avoidable resources used to produce a given productivity counting personal time and dynamism (Fariás & Pimenta, 2012).

In addition, planning is defined as the process of by which activities which boost the long stint performance of an institution are identified, chosen and implemented through establishment of guidelines and by generating a continuing compatibility within the interior abilities and capitals of an institution and the varying exterior situation in which it does functions (Huppert, 2011). Internal control and audit is defined as the accountability of each individual in an institution and consequently ought to be an explicator's understood part of everybody's employment or task description (Khan, 2013). Accountability can be defined as an apparent of several ways such as monetary, cost, administration and bookkeeping within an institution. An accounting system has to be a methodical, well-organized arrangement for the provision of precise evidence and pedals within an organization (Barahona and Elizondo, 2012).

2.6 Summary of Literature Review

In general, available empirical studies about budgetary control processes and organizational efficiency and effectiveness as revealed by Umble et al, (2013; Bourne, (2014); and Fariás and Pimenta, (2012) have tended to concentrate on profit making institution and given less attention to non-profit making institutions. Therefore, this contemporary work tries in closure of an alarm existing in budgetary control processes in relation to efficiency

of regulatory agencies in particular Rwanda Regulatory Authority.

N = target population

e = margin error (5%)

$$n = \frac{168}{1 + 168 \times (0.0025)} = \frac{168}{1.42} = 118.3 \approx 118$$

respondents

3. RESEARCH METHODOLOGY

3.0 Introduction

Chapter three designates the methods that were embarked on in this work whereby the main items that were dealt with include those the researcher used to collect data, to analyse it and present it in the following chapter.

3.1 Research design

The project embraced descriptive and correlative designs. According to Mugende and Mugende (2013), descriptive research is the examination in which magnitude of data are collected and scrutinized so as to describe the specific singularity in its current trends whereas correlation is when a researcher embarks on the relationship among the current events in order to analyse the associations between the study variables.

3.2 Target Population

This key project's population of this research involved one hundred sixty-eight (168) employees of Rwanda Regulatory Authority working in units and departments which include: Finance unit, Corporate unit, Audit unit, Directorate, Procurement unit, Legal unit, Planning and Budget unit, IT unit, Public Relations unit and Human Resources unit. This was as per Human Resource Management.

3.3 Sample Design

3.3.1 Sample Size

Graham and Marshal (2015) designated sample size as is an established number of individuals pinched from a research populace while having an intention of reckoning on features of this very selected number of populace. Besides, Mugenda and Mugenda (2013) added that sample size is defined as the number of cases or entities in the sample premeditated. They recommended that the difficulty of an inapt number of the selected populace size is a multifaceted matter which rests on a number of influences.

Further down is the calculation with the guidance of Solvin's formula that was relied on to come up with the figure used as respondents.

$$n = \frac{N}{1 + Ne^2}$$

n = sample size

3.3.2 Sampling technique

To select the study's respondents, the researcher used probability sampling technique particularly stratified sampling technique enacted to sample. Grinnell and William (2009), stratified sampling technique is a strategy where the population can be effortlessly partitioned into gatherings or strata which are particularly not quite the same as one another, yet the components inside of a gathering are homogeneous regarding a few attributes e.g. understudies of school can be separated into strata on the premise of sexual orientation, courses offered, age and so forth. Therefore, this strategy was used because the population of the study was not homogeneous since they are from different departments. In addition, the researcher distributed questionnaires to the respondents separately in their departments whereby all respondents from different departments had the same chance of participating in the study.

3.4. Data Collection Methods

3.4.1 Data Collection instruments

3.4.1.1 Questionnaire

According to Cooper and Schindler (2013), a questionnaire is defined as an exploration apparatus comprising of a sequences of interrogations and other prompts for resolution of jamboree information from the study respondents. While collecting primary research data, the researcher involves questionnaires that are designed in accordance with study objectives. In designing questionnaires, Likert questionnaire design was used to measure the RURA staff views. The same rating scale was also used for the factors of the performance of RURA. Using Likert Scale, the respondents indicated whether they strongly agree (SA), agree (A), neutral (N) disagree (D), or strongly disagree (SD).

3.4.1.2 Interview

This particular technique of collecting information known as interview was used for cases where some respondents were caught up by time due to a congested schedule. The interview guide which involved non structured questions was addressed to the head of finance.

3.4.3 Reliability and Validity

Reliability is the notch to which an assessment instrument yields unchanging and dependable outcomes while Validity refers to how well a test measures what it is unsubstantiated to quantify (Cooper and Schindler, 2013). In order to warrant that the research information gathering instrument processes what it is thought to process, the instrument was comprehensively patterned to promise validity. As a way of ensuring further enhancement, the research data tools had to be offered to research director and other research specialists to implore more thoughts such that we had an assurance of perfection and applicability. In making sure that study data gathering appliance dignified what it supposed to, the instrument was crisscrossed to indemnify the study’s legitimacy.

Regarding the study’s instrument or apparatus reliability, a preliminary or pilot project had to be carried out among a small number of employees who worked one department of RURA and specifically, Budget department. The researcher’s aim of doing the preliminary study was among other things to determine the trustworthiness and loyalty of the research data tools before dispensing them to the real study respondents. Besides, this was to ensure that these tools could provide similar results if offered another chance to moderately dissimilar mockup, in other arguments to gather the identical information dependably underneath comparable circumstances.

3.5 Data Analysis Procedure

This research zeroed on using a researchers’ software known as SPSS, 2.0 class to bring about the reckoning scrutiny of research findings. According to Ridley and D’Silva (2007) SPSS is unsociable of the greatest extensively rummage-sale obtainable and commanding arithmetical software correspondence that allows researcher to recapitulate information in order to decide if indeed there could be striking adjustments sandwiched amongst the clusters, scrutinize associations amid research variables, and consequences.

Consequently, after tracking down the data which the researcher ensure that it is so indispensable and enough for groundwork of research testimony, the researcher engaged qualitative information analysis which is used to examine data is attained from the field. By using the researchers’ SPSS, evocative measurements were embraced. In order to analyze the correlation between the study variables, Pearson and Spearman tests were involved.

4. RESEARCH FINDINGS AND DISCUSSION

4.0 Introduction

The fourth chapter highpoints project results, their interpretation and exploration grounded on the research objectives. Research responses were collected from a population of 118 employees of Rwanda Regulatory Authority working in units and departments which include: finance unit, corporate unit, audit unit, directorate, procurement unit, legal unit, planning and budget unit, IT unit, public relations unit and human resources unit.

4.1 Demographic Characteristics of Respondents

Under this section a number of items that make up demographic characteristics were presented, described and were considered. 62.7% of the involved respondents were found to be males whereas only 37.3% were found to be females. It was this understood that results centered on the fact that the male employees are more in number than those of female employees in RURA. Besides being unequal in terms of number, the research covered both genders which made the study more professional since the females were at least 30% of the entire population.

4.1.1 Gender

The researcher tasked the respondents to state accurate information about their gender. All the RURA employed involved in the study were tasked to name their respective gender while the results are high pointed.

Table 4.1: Gender distribution

Respondents	Frequency	Percent
Male	74	62.7
Female	44	37.3
Total	118	100.0

Source: Primary data (2020)

Table 4.1 indicates that 62.7% of the involved respondents were found to be males whereas only 37.3% were found to be females. It was this understood that results centered on the fact that the male employees are more in number than those of female employees in RURA. Besides being unequal in terms of number, the research covered both genders which made the study more professional since the females were at least 30% of the entire population.

As painted in table 4.2, the results undoubtedly pointed out that the largest digit of the study populace was embodied by 46.6% were those whose age brackets stretched from the age of 31 through to the age of 40. In reality, this publicized that this project convoluted the biggest number of RURA employees that were mature enough and hence they provided unbiased information. Besides, this age cluster is trailed by those in the age of 41 through to 50, from 20 through to 30 then finally to those above the age of 50 with 27.1%, 16.1% and 10.2% respectively.

Similarly, out of 118 respondents, the largest portion of 45 respondents represented by 38.1% had worked at RURA for an epoch for over five years, other 25 respondents equivalent to 21.2% of the total respondents signposted that they had been at RURA for the epoch running from 2 through to five years. In addition, 17.8% worked for RURA between 1 and 2 years and the remaining respondents of 8 have worked and contributed for less than 1 year at RURA. From the above findings, it is clear that the respondents which the study involved had worked

enough experience to understand how analyze the influence of budgetary control processes on the efficiency in Rwanda Utilities Regulatory Authority.

4.2. Presentation of Findings

Basing on the study objectives presented in chapter one, the researcher presented, interpreted and analyzed the collected research views given by respondents concerning the influence budgetary control processes on the efficiency of Rwanda Utilities Regulatory Authority. The study's projected objectives were met.

4.2.1 Determining the effect of planning on the efficiency of RURA

This sub section discusses the respondents' level of appreciation on effect of planning on the efficiency of RURA and the results are clearly indicated in the table whereby they in form of percentages and the explanations are under table 4.6 of this study.

Table 4.2: Descriptive statistics regarding the effect of planning on the efficiency of RURA

Statement	SA		A		N		D		SD		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Planning supports in realizing the country's vision	89	75.4	26	22.0	1	.8	1	.8	1	.8	118	100
Planning aids in improving performance of RURA	97	82.2	18	15.3	1	.8	1	.8	1	.8	118	100
Transaction data is stored in well-organized database	95	80.5	20	16.9	1	.8	1	.8	1	.8	118	100
Helps in the focusing onto institutional capabilities	86	72.9	29	24.6	1	.8	1	.8	1	.8	118	100

Source: Primary data (2020)

From the study outcomes reached and presented in table 4.6, the researcher's intention was to profoundly to evaluate the influence of planning at RURA on the efficiency of the institution. As clearly signposted in table 4.6, of the inquiry statements, none of them those respondents were undecided with. These statements were all agreed and strongly agreed in high levels. Findings revealed these practices as follows; planning during budgetary control processes support in realizing the country's vision was strongly agreed by 66.7%, planning aids in improving performance of RURA was strongly agreed by 84.7% while the fact that transaction data is stored in well-organized database due to planning during budgetary control processes was strongly agreed by 81.4% and finally the fact that planning helps in the focusing onto institutional capabilities was strappingly agreed by 73.7% of the population involved in the study.

According to Clark (2017), for any government institutions, planning is a pivotal way of ensuring accountability and efficiency. Planning as part of budgetary control processes ensures that transaction data is stored in well-organized database for future planning and the entire budgetary control process helps an institution to focus onto organizational capabilities and while analyzing environmental obstacles. From the findings, most of the respondents who strongly agreed added that they were confident about how planning is carried out since even the lower level manager and the entire team at RURA is involved during this process either directly or indirectly.

4.2.2 Assessing the influence of budget preparation on efficiency of RURA

This section presents the respondents' appreciation degree concerning the outcomes as a result of stimulus of reasonable preparation on adeptness of

RURA. The results are later explained under the table for better understanding.

Table 4.3: Descriptive statistics of the influence of budget preparation on efficiency

Centered on the data presented in table 4.7, the From the findings, since all the statements set were

Statement	SA		A		N		D		SD		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Budget supports management to make work allied analysis	98	83.1	17	14.4	1	.8	1	.8	1	.8	118	100
They enable in providing adequate communiqué	99	83.9	16	13.6	1	.8	1	.8	1	.8	118	100
Budget helps in rejecting unwanted programs	106	89.8	9	7.6	1	.8	1	.8	1	.8	118	100
It helps to have better plans Vision 2050	97	82.2	18	15.3	1	.8	1	.8	1	.8	118	100

realized study results were in relation to appreciation of the budget preparation practices whereby the respondents were tasked to indicate on whether the budget preparation as part of budgetary control processes influence the efficiency institutions in reference to RURA. The statement that budget preparation helps in rejecting unwanted programs was strongly agreed at 89.8%. The fact that budgetary control processes enable the RURA management in providing adequate communication among the staff and through to MINECOFIN was strappingly agreed by 83.9% amidst the total population involved in the study while the statement that budget preparation supports management to make work allied analysis was strappingly agreed by 83.1% of the population in the study. The findings are in line with Choi et al (2014), budgetary control processes support management to analyze the present activities such that to justify to match them with the current needs.

both agreed and strongly agreed, it is enough to understand that budgetary control processes and in particular budget preparation in RURA are all well supported and they in place. Besides, based on the presented findings, budget preparation enables the management team at RURA to adequately provide communication amongst different departments and other stakeholders such as MINECOFIN and other interrelated establishments of government.

4.2.3 Examining the influence of internal audit on the efficiency of RURA

Here, the researcher wanted to find out how the respondents perceive the influence of internal audit

on the efficiency of RURA. After the analysis of the study results were presented in table 4.8 and they are later explained under the table for better comprehension.

Table 4.4: Descriptive statistics regarding the influence of internal audit on the efficiency of RURA

Statement	SA		A		N		D		SD		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
RURA uses it to provide direction to the staff	114	96.6	1	.8	1	.8	1	.8	1	.8	118	100
Helps create effective communication channels	47	39.8	53	44.9	9	7.6	8	6.8	1	.8	118	100
It supports all RURA employees to play roles	106	89.8	9	7.6	1	.8	1	.8	1	.8	118	100
Employees communicate to higher levels easily	93	78.8	22	18.6	1	.8	1	.8	1	.8	118	100

Source: Primary data (2020)

In table 4.8, the findings indicate the rates at which the respondents examine the impression of internal inspection on the efficiency of RURA and other

institutions at large. The highly strongly agreed was that RURA management uses internal audit to provide leadership and direction to the staff at 100%

of the respondents, internal audit supports all RURA employees to play their roles and was strappingly approved by 96.6% of the study's populace meanwhile 89.8% for the respondents strongly agreed the institution employees communicate to higher levels of the management. However, 6.8% and .8 % were respectively undecided and disagreed on the fact internal audit helps to create effective communication channels.

As per thus research discoveries, the researcher understood that most of the respondents highly rated influence of the internal audit on the efficiency at RURA since only one of the statements was undecided on and disagreed about by the respondents while the rest were strongly agreed and agreed as regards to the feedback presented in the eighth table of chapter four of this study report. Most of the respondents that pointed out in intermediate level as their ability of accessing the stated requirements

unlike the ability of accessing all the basic needs which of the respondents.

4.3 Relationship between budgetary control process and efficiency of RURA

With the help of SPSS, this sub section expresses the significance relationship between the research variables which include budgetary control and efficiency of RURA as dependent variable and independent variable of this study.

4.3.1 Pearson correlation coefficients for budgetary control process and efficiency

This facilitated the researcher to recognize the strength of linear link that is within midst the study independent and study independent variables as presented.

Table 4.5: Correlation analysis between predictors of budgetary control process of RURA

		Planning	Budget preparation	Internal audits
Planning	Pearson Correlation	1	.622**	.974**
	Sig. (2-tailed)		.000	.000
	N	118	118	118
Budget preparation	Pearson Correlation	.622**	1	.580**
	Sig. (2-tailed)	.000		.000
	N	118	118	118
Internal audits	Pearson Correlation	.974**	.580**	1
	Sig. (2-tailed)	.000	.000	
	N	118	118	118

** . Correlation is significant at the 0.01 level (2-tailed).
Source: Primary data (2020)

The findings in Table 4.9 prove that there is a relationship between Planning and Budget preparation (p= .622 and sig=.000), between Planning and Internal audits (p=.974 and sig=.000), between Budget preparation and Internal audits

(p=.580 and sig=.000) because all calculated p-values are less than 0.01 level of significance. Hence, this implies that there is a relationship between predictors budgetary control process in RURA.

Table 4.6: Correlation analysis between measures of efficiency regulatory of RURA

		Cost minimization	Timelines	Accountability	Responsibility
Cost minimization	Pearson Correlation	1	.520**	.943**	.476**
	Sig. (2-tailed)		.000	.000	.000
	N	118	118	118	118
Timelines	Pearson Correlation	.520**	1	.404**	.965**
	Sig. (2-tailed)	.000		.000	.000
	N	118	118	118	118
Accountability	Pearson Correlation	.943**	.404**	1	.408**
	Sig. (2-tailed)	.000	.000		.000
	N	118	118	118	118
Responsibility	Pearson Correlation	.476**	.965**	.408**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	118	118	118	118

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Primary data (2020)

The findings in Table 4.10 proves that there is a relationship between Cost minimization and Timelines (p= .520 and sig=.000), between Cost minimization and Accountability (p=.943 and sig=.000), between Cost minimization and Responsibility (p=.476 and sig=.000), between Timelines and Accountability (p=.404 and sig=.000), between Timelines and Responsibility (p=.965 and

sig=.000), between Accountability and Responsibility (p=.408 and sig=.000) because all calculated p-values are less than 0.01 level of significance. Thus, this implies that there is a relationship between measures of efficiency regulatory in RURA.

Table 4.7: Correlation analysis between budgetary control process and efficiency regulatory of RURA

		Plann ing	Budget preparation	Internal audits	Cost minimization	Timeli nes	Account ability	Responsi bility
Planning	P Correlation	1	.622**	.974**	.611**	.496**	.613**	.507**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000
	N	118	118	118	118	118	118	118
Budget preparation	P Correlation	.622**	1	.580**	.988**	.471**	.980**	.456**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000
	N	118	118	118	118	118	118	118
Internal audits	P Correlation	.974**	.580**	1	.538**	.401**	.605**	.451**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000
	N	118	118	118	118	118	118	118
Cost minimization	P Correlation	.611**	.988**	.538**	1	.520**	.943**	.476**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000
	N	118	118	118	118	118	118	118
Timelines	P Correlation	.496**	.471**	.401**	.520**	1	.404**	.965**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000
	N	118	118	118	118	118	118	118
Accountabili ty	P Correlation	.613**	.980**	.605**	.943**	.404**	1	.408**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000
	N	118	118	118	118	118	118	118
Responsibilit y	P Correlation	.507**	.456**	.451**	.476**	.965**	.408**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	
	N	118	118	118	118	118	118	118

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Primary data (2020)

The findings in Table 4.11 prove that there is a relationship between Planning and Budget preparation (p= .622 and sig=.000), between Planning and Internal audits (p=.974 and sig=.000), between Planning and Cost minimization (p=.611 and sig=.000), between Planning and Timelines (p=.496 and sig=.000), between Planning and Accountability (p=.613 and sig=.000) between Planning and Responsibility (p=.507 and sig=.000), between Budget preparation and Internal audits

(p=.580 and sig=.000) between Budget preparation and Cost minimization (p=.988 and sig=.000) between Budget preparation and Timelines (p=.471 and sig=.000) between Budget preparation and Accountability (p=.980 and sig=.000) between Budget preparation and Responsibility (p=.456 and sig=.000) between Internal audits and Cost minimization (p=.538 and sig=.000), between Internal audits and Timelines (p=.401 and sig=.000), between Internal audits and Accountability (p=.605 and sig=.000), between Internal audits and

Responsibility (p=.451 and sig=.000), between Cost minimization and Timelines (p=.520 and sig=.000), between Cost minimization and Accountability (p=.943 and sig=.000), between Cost minimization and Responsibility (p=.476 and sig=.000), between Timelines and Accountability (p=.404 and sig=.000), between Timelines and Responsibility (p=.965 and

sig=.000), between Accountability and Responsibility (p=.408 and sig=.000), because all calculated p- values are less than 0.01 level of significance. Thus, this implies that there is a relationship between budgetary control process and efficiency regulatory in RURA.

4.3.2 Regression Analysis

The study adopted multiple regression analysis models to test the regression of the study thereby re-affirming the consequence of the affiliation amid the reliant variables and multiple independent variables. The model involves the analysis of each dependent variable and the summary of the coefficients in order to explore the correlation between the study variables.

Table 4.8: Model Summary of Budgetary control process and cost minimization of RURA

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.999 ^a	.997	.997	.06075

a. Predictors: (Constant), Internal audits, Budget preparation, Planning

Source: Primary data (2020)

The results in Table 4.12 indicate that that the R coefficient .999 reveals that budgetary control process has a positive relationship with cost minimization. The coefficient of determination .997 R square also indicates that budgetary control process explains 99.9 % the progress variability in

cost minimization. Thus, it implies that predictors of budgetary control process such as planning, internal audits and budget preparation affect the progress of cost minimization by 99.9% in RURA.

Table 4.9: Analysis of Variance (ANOVA) of budgetary control process and cost minimization of RURA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	158.189	3	52.730	14288.415	.000 ^b
Residual	.421	114	.004		
Total	158.610	117			

a. Dependent Variable: Cost minimization

b. Predictors: (Constant), Internal audits, Budget preparation, Planning

Source: Primary data (2020)

The findings in Table 4.13 indicate that there is significant relationship between budgetary control process and cost minimization because the calculated significance value .000 is less than 0.05 level of

significance (calculated sig. value.000 < critical level of significance 0.05). Thus, the statistical model predicting the relationship between budgetary control process and cost minimization is significant.

Table 4.10: Coefficients of budgetary control process and cost minimization of RURA

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.001	.011		.120	.905
Planning	.701	.025	.637	28.440	.000
Budget preparation	1.008	.007	.964	154.866	.000
Internal audits	-.708	.024	-.642	-29.819	.000

a. Dependent Variable: Cost minimization
Source: Primary data (2020)

The results in table 4.14 reveal that predictors of budgetary control process have positive coefficients that enhance positive effect on the progress of cost minimization in RURA. The regression analysis indicates that there is a positive significant relationship between budgetary control process and cost minimization because all the calculated p-values are less than 0.05 each. Thus, the coefficient gives regression model, $Y = \beta_0 + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + \beta$. Therefore, the model becomes $Y = .001 + .701x_1 + 1.008x_2 + .708x_3$, this regression equation indicates that there is a positive significant relationship between predictors of budgetary control process and cost minimization s of RURA.

The first objective of establishing the relationship between planning and cost minimization has a positive and significant relationship ($b = .701$ and $p = .000$). The second objective of establishing the relationship between budget preparation and cost minimization has a positive and significant relationship ($b = 1.008$ and $sig = .000$), the third objective of establishing the relationship between internal audits and cost minimization has a positive relationship ($b = .708$ and $p = .000$). Thus, implies that there is a positive significant relationship between budgetary control process and cost minimization in RURA.

Table 4.11: Model Summary of budget control process and timeliness of RURA

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.633 ^a	.401	.385	1.01331

a. Predictors: (Constant), Internal audits, Budget preparation, Planning
Source: Primary data (2020)

The results in Table 4.15 indicate that that the R coefficient .633 reveals that budgetary control process has a positive relationship with timeliness. The coefficient of determination .401 R square also indicates that budgetary control process explains 63.3 % the progress variability in cost minimization.

Thus, it implies that predictors of budgetary control process such as planning, internal audits and budget preparation affect the progress of cost minimization by 63.3% in RURA.

Table 4.12: Analysis of Variance (ANOVA) of budget control process and timeliness of RURA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	78.404	3	26.135	25.453	.000 ^b
Residual	117.054	114	1.027		
Total	195.458	117			

a. Dependent Variable: Timelines
 b. Predictors: (Constant), Internal audits, Budget preparation, Planning
Source: Primary data (2020)

The findings in Table 4.16 indicate that there is significant relationship between budgetary control process and cost minimization because the calculated significance value .000 is less than 0.05 level of significance (calculated sig. value.000 < critical level

of significance 0.05). Thus, the statistical model predicting the relationship between budgetary control process and cost minimization is significant.

Table 4.13: Coefficients of budget control process and timeliness of RURA

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.772	.190		4.057	.000
Planning	2.231	.411	1.824	5.424	.000
Budget preparation	.235	.109	.203	2.167	.002
Internal audits	-1.831	.396	-1.494	-4.621	.000

a. Dependent Variable: Timelines

Source: Primary data (2020)

The results in table 4.17 reveal that predictors of budgetary control process have positive coefficients that enhance positive effect on the progress of timeliness in RURA. The regression analysis indicates that there is a positive significant relationship between budgetary control process and timeliness because all the calculated p-values are less than 0.05 each. Thus, the coefficient gives regression model, $Y = \beta_0 + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + \beta$. Therefore, the model becomes $Y = .772 + 2.231x_1 + .235x_2 + 1.831x_3$, this regression equation indicates that there is a positive significant between predictors of budgetary control process and timeliness of RURA.

The first objective of establishing the relationship between planning and timeliness has a positive and significant relationship ($b = 2.231$ and $p = .000$). The second objective of establishing the relationship between budget preparation and timeliness has a positive and significant relationship ($b = .235$ and $sig = .002$), the third objective of establishing the relationship between internal audits and timeliness has a positive relationship ($b = 1.831$ and $p = .000$). Thus, implies that there is a positive significant relationship between budgetary control process and timeliness in RURA.

Table 4.14: Model Summary of budget control process and accountability of RURA

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.991 ^a	.983	.982	.14572

a. Predictors: (Constant), Internal audits, Budget preparation, Planning

Source: Primary data (2020)

The results in Table 4.18 indicate that that the R coefficient .991 reveals that budgetary control process has a positive relationship with accountability. The coefficient of determination .983 R square also indicates that budgetary control process explains 98.3 % the progress variability in

accountability. Thus, it implies that predictors of budgetary control process such as planning, internal audits and budget preparation affect the progress of accountability by 99.1% in RURA.

Table 4.15: Analysis of Variance (ANOVA) of budget control process and accountability of RURA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	138.935	3	46.312	2180.993	.000 ^b
Residual	2.421	114	.021		
Total	141.356	117			

a. Dependent Variable: Accountability

b. Predictors: (Constant), Internal audits, Budget preparation, Planning

Source: Primary data (2020)

The findings in Table 4.19 indicate that there is significant relationship between budgetary control process and accountability because the calculated significance value .000 is less than 0.05 level of

significance (calculated sig. value.000 < critical level of significance 0.05). Thus, the statistical model predicting the relationship between budgetary control process and accountability is significant.

Table 4.16: Coefficients of budget control process and accountability of RURA

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.001	.027		-.050	.960
Planning	-.701	.059	-.674	-11.856	.000
Budget preparation	.992	.016	1.005	63.525	.000
Internal audits	.708	.057	.680	12.431	.000

a. Dependent Variable: Accountability

Source: Primary data (2020)

The results in table 4.20 reveal that predictors of budgetary control process have positive coefficients that enhance positive effect on the progress of accountability in RURA. The regression analysis indicates that there is a positive significant

relationship between budgetary control process and accountability because all the calculated p-values are less than 0.05 each. Thus, the coefficient gives regression model, $Y = \beta_0 + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + \beta$. Therefore, the model becomes

$Y = .001 + .701x_1 + .992x_2 + .708x_3$, this regression equation indicates that there is a positive significant relationship between predictors of budgetary control process and accountability of RURA.

The first objective of establishing the relationship between planning and accountability has a positive and significant relationship ($b = .701$ and $p = .000$). The second objective of establishing the relationship

between budget preparation and accountability has a positive and significant relationship ($b = .992$ and $\text{sig} = .000$), the third objective of establishing the relationship between internal audits and accountability has a positive relationship ($b = .708$ and $p = .000$). Thus, it implies that there is a positive significant relationship between budgetary control process and accountability in RURA.

Table 4.17: Model Summary of budget control process and responsibility of RURA

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.563 ^a	.317		.299

a. Predictors: (Constant), Internal audits, Budget preparation, Planning

Source: Primary data (2020)

The results in Table 4.21 indicate that the R coefficient .563 reveals that budgetary control process has a positive relationship with responsibility. The coefficient of determination .317 R square also indicates that budgetary control

process explains 56.3 % the progress variability in responsibility. Thus, it implies that predictors of budgetary control process such as planning, internal audits and budget preparation affect the progress of responsibility by 56.3% in RURA.

Table 4.18: Analysis of Variance (ANOVA) of budget control process and responsibility

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	54.574	3	18.191	17.610	.000 ^b
Residual	117.765	114	1.033		
Total	172.339	117			

a. Dependent Variable: Responsibility

b. Predictors: (Constant), Internal audits, Budget preparation, Planning

Source: Primary data (2020)

The findings in Table 4.22 indicate that there is significant relationship between budgetary control process and responsibility because the calculated significance value .000 is less than 0.05 level of

significance (calculated sig. value $.000 < \text{critical level of significance } 0.05$). Thus, the statistical model predicting the relationship between budgetary control process and responsibility is significant.

Table 4.19: Coefficients of budget control process and responsibility of RURA

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.769	.191		4.028	.000
Planning	1.261	.412	1.099	3.058	.003
Budget preparation	.216	.109	.199	1.987	.004
Internal audits	-.845	.397	-.734	-2.126	.003

a. Dependent Variable: Responsibility

Source: Primary data (2020)

The results in table 4.22 reveal that predictors of budgetary control process have positive coefficients that enhance positive effect on the progress of responsibility in RURA. The regression analysis indicates that there is a positive significant relationship between budgetary control process and responsibility because all the calculated p-values are less than 0.05 each. Thus, the coefficient gives regression model, $Y = \beta_0 + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + \beta$.

Therefore, the model becomes $Y = .769 + 1.261X_1 + .216X_2 + .845X_3$, this regression equation indicates that there is a positive significant relationship between predictors of budgetary control process and responsibility of RURA.

The first objective of establishing the relationship between planning and responsibility has a positive and significant relationship ($b = 1.261$ and $p = .003$).

The second objective of establishing the relationship between budget preparation and responsibility has a positive and significant relationship ($b=.216$ and $sig=.004$), the third objective of establishing the relationship between internal audits and responsibility has a positive relationship ($b=.845$ and $p=.003$). Thus, implies that there is a positive significant relationship between budgetary control process and responsibility in RURA.

5. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

Finally, the 5th is the last episode of this project report and it highlights the quick look of the findings, the inferences realized and suggestions to the institution grounded on research results reached as regards to the influence of budgetary control processes in on efficiency of regulatory authorities in Rwanda with reference to RURA. Besides, shedding light on the recommendations for improvement, this chapter indicates the possible future researchable topics.

5.1 Summary of major discoveries

The fundamental reason of this task was to scrutinize the stimulus of budgetary control processes on efficiency of regulatory authorities in Rwanda with reference to RURA. This study applied both descriptive and correlative research designs; and used a questionnaire survey and interview to gather primary data from employees of RURA. The study based its findings on the data from of 118 respondents who all filled the study questionnaires and returned them for analysis. The study considered efficiency as dependent variable and budgetary control processes as its independent variables.

Research findings established that 63.6% of the total respondents were males who engaged in the study whereas the remaining characterized by 36.40% were females. The researcher undoubtedly witnessed from the outcomes that the numeral of male RURA male employees was further than females. Results exhibited that a huge numeral of the study populace that was epitomized by 46.6% ranged from the age of thirty-one through to forty, an indication that respondents were mature enough to provide impartial data. Based on results, it is clearly elaborated that 72.9%, 18.6% and 8.5 % represented for the respondents who had pursued bachelor degree, master degree and professional course correspondingly whom we expected to have provided us with credible information. It was found out that the highest number represented by 72.9% was from lower management and other staff that are understood to know much about the study subject.

5.1.1 Determining the effect of planning on the efficiency of RURA

The results was revealed the appreciation level of the respondents as regards the planning carried out at RURA whereby statements provided were both strongly agreed and agreed by the respondents. Findings discovered that 75.4% stalwartly contracted that planning supports RURA in realizing the country's vision; 82.2% revealed that planning aids in improving performance of RURA while the fact that transaction data is stored in well-organized database due to planning was strongly agreed by 80.5% and finally it was understood 72.9% strongly agreed that planning helps RURA in the focusing onto institutional capabilities. From an interview held, most of the study populace who strappingly granted added that they were confident about how planning is carried out since even the lower level managers and the entire team at RURA is involved during this process either directly or indirectly.

5.1.2 Assessing the influence of budget preparation on efficiency of RURA

Study results were in relation to the influence of budget preparation on efficiency of RURA. The study discoveries exposed that 96.6% strappingly contracted that budget preparation helps in rejecting unwanted programs whereas 83.9% strongly agreed the fact that budget preparation enables the RURA management in providing adequate communication among the staff even through to MINECOFIN while the statement that budget preparation supports management to make work allied analysis was strappingly agreed by 89.2% of the respondents.

5.1.3 Examining the influence of internal audit on the efficiency of RURA

The findings highlighted those respondents' views on the stimulus of interior audit on the efficacy of RURA and other institutions at large. The highly strongly agreed was that RURA management uses internal audit to provide leadership and direction to the staff at 100% of the respondents while 89.2% of the respondents strongly agreed that internal audit supports all RURA employees to play their roles meanwhile 83.9% strappingly approved that the institution employees communicate to higher levels of the management. However, 9.3% and 7.6% were respectively undecided and disagreed on the fact internal audit helps to create effective communication channels. From this realized study outcomes, the researcher understood that most of the study populace highly rated stimulus of the interior audit on the efficiency at RURA since only one of the statements was undecided on and disagreed.

The regression results indicates that the first objective of establishing the relationship between planning and accountability has a positive and significant relationship ($b=.701$ and $p=.000$). The second objective of establishing the relationship between budget preparation and accountability has a positive and significant relationship ($b=.992$ and $sig=.000$), the third objective of establishing the relationship between internal audits and accountability has a positive relationship ($b=.708$ and $p=.000$). Thus, implies that there is a positive significant relationship between budgetary control process and accountability in RURA.

5.2 Conclusion

Study findings assert that there is strong influence of planning on the efficiency of RURA due to the following: It was strongly put out that planning aids in improving performance of RURA and it also enables storing of data transactions in well-organized database. Besides, planning helps RURA in the focusing onto institutional capabilities. Findings revealed that budget preparation strongly influence efficiency of RURA and this is because budget preparation helps RURA in rejecting unwanted programs; it also enables the RURA management in providing adequate communication among the staff and to other stakeholders such as MINECOFIN, and notably budget preparation supports management to make work related analysis. This enforces the efficiency since the unwanted institution programs maybe neglected which enables to control unnecessary costs. The findings have also revealed that there is a relationship between budgetary control process and efficiency regulatory because all calculated p-values are under 0.01 level of significance due to the relationship between Planning and Timelines ($p=.496$ and $sig=.000$), between Planning and Accountability ($p=.613$ and $sig=.000$) between Planning and Responsibility ($p=.507$ and $sig=.000$), between Budget preparation and Internal audits ($p=.580$ and $sig=.000$) between Budget preparation and Cost minimization ($p=.988$ and $sig=.000$) between Budget preparation and Timelines ($p=.471$ and $sig=.000$) between Budget preparation and Accountability ($p=.980$ and $sig=.000$) between Budget preparation and Responsibility ($p=.456$ and $sig=.000$) between Internal audits and Cost minimization ($p=.538$ and $sig=.000$), between Internal audits and Timelines ($p=.401$ and $sig=.000$), between Internal audits and Accountability ($p=.605$ and $sig=.000$), between Internal audits and Responsibility ($p=.451$ and $sig=.000$). Research results discovered that interior audit has stimulus on the adeptness of RURA due the following reasons. RURA management uses internal audit to provide leadership and direction to the staff;

also internal audit supports all RURA employees to play their roles meanwhile the RURA employees communicate to higher levels of the management easily through internal audit. To crown it all and by basing on the Pearson coefficient analysis, it must be put that budgetary control processes in terms planning, budget preparation and internal audit has strong relationship on efficiency of regulatory authorities in Rwanda and RURA in particular. In an interview with management, it was suggested that a rise in the mismanaged funds at RURA in 2012 and 2013 was mainly as a result of failure and errors in budgetary control processes which were later rectified.

5.3 Recommendations

Concerning internal audit, the management and auditors ought to always engage the entire team after the audit so to rectify the errors committed which creates an effective communication channel.

RURA and other stakeholders should sensitize the employees to set up side a platform of sharing information through IFMS.

As a way of bettering efficiency levels at RURA, the RURA management is suggested to train especially in the up-to-date means of budgetary control platforms.

5.4 Suggestions for further study

For more future studies, other academicians are also endorsed to do studies on these topics:

- (i) Analysis of modernized financial management systems on the efficiency of public institutions in Rwanda
- (ii) Effect of E-system user perception on the efficacy of public agencies in Rwanda.

DEDICATION

I dedicate this project to my beloved husband, my children, family and friends for being supportive throughout my study. I have really acquired a fortune of knowledge during my time at the university.

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Appendix 1: A questionnaire to Rwanda Utilities Regulatory Authority staff

A QUESTIONNAIRE ADDRESSED TO THE STAFF

SECTION I: Identification of the respondents

1. Respondents' age

20-30

31-40

41-50

Above 50

2. Respondents' Sex

Male

Female

3. Respondents' Education

PhD

Masters

Bachelor

Secondary level

Any other (stipulate)

.....

4. Respondents' Department

Finance

Planning

Audit

5. Respondents' Experience

Below 1 year

3 to 4 years

1 to 2 years

4 to 5 years

2 to 3 years

Above 5 years

SECTION II: Determination of effect of Planning on the efficiency of RURA

Planning	5	4	3	2	1
1. Planning supports in realizing the country's vision, resolve its difficulties and mend the quality of services provided to the citizens					
2. Planning aids in detecting, indicating and executing activities which improve performance of RURA					
3. With Planning, transaction data is stored in well-organized database for future planning					
4. Planning helps to focus onto organizational capabilities and while analyzing environmental obstacles					

SECTION III: Assessment of influence of budget preparation on efficiency of RURA

Budget preparation	5	4	3	2	1
5. Budget preparation supports management to analyze the present activities such that to justify to match them with the current needs					
6. Budget preparation enables RURA by providing adequate communication amongst different departments and MINECOFIN					
7. Budget preparation enables management to reject some of the programs which are longer in public needs					
8. The use of budget preparation in helps the institution decision-makers to have better plans that match Vision 2050					

SECTION IV: Examination of influence of internal audit on the efficiency of RURA

Internal audit	5	4	3	2	1
9. With the help of internal audit, the management at RURA provides leadership and direction to staff regarding values, principles and policies					
10. Internal audit, provides effective upward communication channels and capable financial, legal and internal audit functions					
11. Internal audit, supports all RURA employees to play their roles in effecting auditing.					
12. Internal audit, makes it possible for all personnel to be responsible for communicating to a higher organization level problem in operations					