

**CHRISTIAN SERVICE UNIVERSITY COLLEGE**

**THE IMPACT OF RISK BASED AUDIT APPROACH ON THE  
IMPLEMENTATION OF INTERNAL CONTROL SYSTEM: A CASE OF  
GOVERNMENT DEPARTMENTS AND AGENCIES IN KUMASI  
METROPOLIS**

**VIDA OHENEWAA AGYEI**

**JUNE, 2018**

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METROPOLIS**

**BY**

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**Dissertation submitted to the Department of Accounting and Finance, of the  
School of Business, Christian Service University College, in partial fulfillment of  
the requirements for the award of the Master of Science Degree in Accounting  
and Finance**

**JUNE, 2018**

## **DECLARATION**

### **Candidate's Declaration**

I hereby declare that this dissertation is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature ..... Date .....

Vida Ohenewaa Agyei  
(Student)

### **Supervisor's Declaration**

I hereby declare that the preparation and presentation of the dissertation were supervised in accordance with the guidelines on supervision of dissertation laid down by the Christian Service University College.

Supervisor's Signature ..... Date .....

Mr. Clement Oppong  
(Supervisor)

H.O.D. Signature..... Date .....

Dr. Mrs. Joyce Ama Quartey  
(Head, Accounting and Finance Department)

## **ABSTRACT**

The main aim of this study was to investigate the impact of risk-based audit approach on the implementation of internal control systems in government departments and agencies in Kumasi metropolis. The objectives of this study were to find out whether Risk-Based Audit Approach (RBAA) is used in implementing internal control activities, whether Risk-Based Audit Approach has influenced internal control activities of government departments and to explore the challenges encountered by RBAA in implementing internal control activities of government departments and agencies in Kumasi metropolis. Among the key findings of this study was that Risk Based Audit Approach is used in government departments and agencies in Kumasi. In government departments and agencies the strategies adopted are; use of risk register, definition of RBAA in the Audit charter, reporting to the committees on department risk exposures, and allocation of resources to internal audit activities, risk management and finance activities. It was also found that the challenges encountered in implementation of RBAA of internal control systems are; lack of relevant knowledge, experience, proper tools to identify risks and relevant principle or guidelines as the main challenges encountered in implementing RBAA. Based on the conclusions above, this research recommends that relevant training should be given to staff on RBAA to equip their knowledge level. Also, adequate proper tools should be provided to identify risks, and audit committees should be established with the mandate of monitoring and evaluating RBAA use and organization of workshops on RBAA activities in public departments and agencies to enhance awareness.

## **DEDICATION**

I dedicate this research work to my dear husband Rev. Anthony Kwadwo Tuffour for his love and support throughout the program and to my lovely girls (Awura and Naana) for understanding mummy whenever she goes for lectures and leave them behind.

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## **LIST OF ABBREVIATIONS**

ACCA	- Association of Certified Chartered Accountants
BoG	- Bank of Ghana
COSO	- Committee of Sponsoring Organizations
ECM	- Effective Credit Management
FAR	- Financial Administration Regulation
IAD	- Internal Audit Department
IIA	- Institute of Internal Auditors
MIS	- Management Information System
RBA	- Risk-Based Audit
RBAA	- Risk-Based Audit Approach
RBIA	- Risk Based Internal Auditing
SEC	- Securities and Exchange Commission
SPSS	- Statistical Package for Social Sciences
USAID	- United States Aid for International Development

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# **CHAPTER ONE**

## **INTRODUCTION**

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

The conception of internal control has experienced an interesting development. From the early 1900s, the purpose of internal control was to protect assets particularly cash, from embezzlement or theft by employees. Audits were conducted comprehensively, and the focus was on the detection of fraud and clerical errors (Aduam, 2015).

Internal control is the systematic procedure ensures that an organization achieves its objectives. The intents of internal controls include operational efficiency, effectiveness, financial reporting reliability and compliance with relevant laws and regulations (Committee of Sponsoring Organizations-COSO, 2014). The growing concerns with respect to corporate accountability in various countries especially developed nations have been associated with the need for Risk-Based Audit Approach (RBAA) which involve management and internal control systems (Beekes & Brown, 2016).

Aduam (2015) indicated that internal control plays a very important role in the operational performance of an organization. Without good internal control measures in an organization, things are likely to be done anyhow which might lead to poor performance and losses. A strong internal control ensures that risk is mitigated and resources protected.

The subjectivity of this area of business has given rise to different levels of emphasis on risk management and internal controls and correspondently reflected in the governance guidelines of less developed nations (Alexander, 2014). Ideally, RBAA is a paradigm shift from the traditional approach of pre-auditing to system audit and finally to RBAA approach (Rapa & Kauffman, 2015).

In pre-audit approach, management abandoned their responsibilities to internal auditors; there were no audit reports and no review of systems by management. On the other hand, system audit was passive and reactive control based audit with no involvement of management in audit planning. Therefore RBAA was introduced to ensure internal audits are effective and efficient (Rapa & Kauffman, 2015). The RBAA is superior to the traditional audit approaches in focusing on the underlying causes of financial risks, not just the accounting records and also RBAA shifts the focus from inspecting the quality of the financial information that is recorded in the financial statements to building quality into financial reporting process (Gibson, 2014).

In developing the Risk-Based Audit Approach, there are certain complexities surrounding an audit that should be considered. The major complexities in performing the audit are: the expectation gap, the uncertainties surrounding the responsibilities of the auditor, the provision of reasonable assurance, and the practical implementation of the standards (Gibson, 2014). The Risk-Based Audit Approach is an essential component in the performance of an audit and part of the audit professions defense against legal liability. This improved the standing of the audit profession, as the audit was legalized (Rapa & Kauffman, 2015).

Development partners such as the World Bank, European Commission, USAID and Denmark have been working closely with the Ghana Government in implementing the reforms. The broad objective of the Financial Administration Regulation is to strengthen Public Financial Management systems by enhancing transparency, accountability and responsiveness to public expenditure policy priorities.

Risk-Based Audit Approach (RBAA) an aspect of the FAR within the Internal Audit Department (IAD) of the National Treasury can be defined as a methodology that links internal auditing to an organization's overall risk management framework (Mwencha, 2016). It allows internal audit to provide assurance to the board (top management) that risk management processes are managing risks effectively, in relation to the risk appetite. Risk-Based Audit Approach aligns scarce internal audit resources to areas of most concern in order to add value, improve the organization's operations, and enable it achieve its objectives (Mwencha, 2016).

Although the RBAA has been extensively used as a tool of internal control systems in the public sector many scandals keep on reappearing every fiscal year (Auditor General Report, 2016). What remains unclear is whether the RBAA is ineffective or the method of implementation is inappropriate. Alternatively it may be the personnel involved in the implementation of RBAA (Rapa & Kauffman, 2015). It is therefore disturbing as much as RBAA has consumed a lot of funds a lot remains to be done to justify the costs of implementing the RBAA. The study therefore sought to establish effects of RBAA on implementation of internal control systems in government departments and agencies in Kumasi.

## **1.2 Statement of the Problem**

According to Aduam (2015), procedures in internal control in public sector organizations are often misconstrued and often aligned with political and management affiliations rather than being looked at objectively and holistically. This state of affairs often results in mistrust of the public in the internal controls in the public sector, especially in the local government systems.

Further, the reporting lines of the Internal Audit Units in the organizational structure of the public institutions tend to conflict with other functions of numerous monitoring and review teams in the public organizations thereby affecting negatively the independence of the Internal Audit Unit and the scope of their work (Internal Audit Agency Act 2014, (Act 658).

Andani (2015) claimed that there is an increasing fraud in the Ghanaian business environment; therefore vigilance is needed to prevent it through good internal controls. He pointed out that, 10% of employees will steal, and 10% will not steal. The remaining 80% have not decided but when given the opportunity, they will steal. These and many other factors depict that lack of effective controls has the tendency to cause fraud in the business environment.

This study tries to assess the impact of Risk Based Audit Approach on the implementation of internal control systems. Fatemi and Glaum (2016) did a similar study in government institutions in Kenya and found that there was a positive relationship between RBAA and internal controls but in assessing this they did not investigate how good financial reporting affects internal controls. Drzik (2014) also undertook a study in Sweden but failed to collect information on the various internal control strategies employed by the 25 government and public institutions he sampled for his study.

Globally, internal audit is not yet as firmly established in the public sector as external audit due to various reasons such as structure of the public administration, non-adherence with International Standards and a Global Forum, lack of qualified professionals, and evolution of internal audit. The need for an effective public sector audit approach becomes more acute today as government operations get more dispersed and decentralized citizens' demand for accountability grows ever stronger.



With the increasingly tighter budgets faced by internal audit departments constrain their ability to expand the depth and breadth of their audits (Vani & Dorotinsky, 2017). Again, Schiavo-Campo & Tomassi (2014) did not analyze in their study, the number of audit risks and the frequency in which audit committees are briefed on significant audit risk assessment. These are some key shortfalls in the relevant literature that will be addressed in the current study.

In line with the above reasons, this study aimed at examining not only the challenges but the gains of implementing Risk-Based Audit Approach in light of the laid down internal control systems in departments and agencies in Kumasi metropolis and further proposed probable strategies that should be put in place by the internal audit department to improve public confidence in the government. The various departments selected were the Regional Treasury, Lands Commission, Stool Lands, Cocoa Swallow Shot and Virus Division, Urban Roads, and Ghana High Ways.

### **1.3 Research Objective**

The main purpose of this study was to examine the effect of Risk-Based Audit Approach on the implementation of internal control systems in government departments and agencies in Kumasi metropolis.

#### **1.3.1 Specific Objectives of the Study**

1. To find out whether Risk-Based Audit Approach is used in implementing internal control activities of government departments and agencies in Kumasi metropolis.

2. To determine whether Risk-Based Audit Approach has influenced internal control activities of government departments and agencies in Kumasi metropolis.
3. To explore the challenges encountered by Risk-Based Audit Approach in implementing internal control activities of government departments and agencies in Kumasi metropolis.

#### **1.4 Research Questions**

The following research questions guided the study:

1. Do government departments and agencies in Kumasi metropolis use Risk-Based Audit Approach in implementing their internal control activities?
2. Have Risk-Based Audit Approach influenced internal control activities of government departments and agencies in Kumasi metropolis?
3. What challenges are encountered in implementing internal control based on Risk-Based Audit Approach in government departments and agencies in Kumasi metropolis?

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

The significance of the study is as follows:

##### **1.5.1 Government Agencies**

This study will help the various governmental agencies like the Public Sector Reforms Unit, District Assemblies to be more abreast with Risk Base Audit practices in order to adopt the appropriate strategies to get the required output from their work and to help the Auditor's General Department to come out with a standard procedure in

identifying, measuring and presenting of strategic information using the Risk-Based Audit Approach.

### **1.5.2 Management of Public Sector Departments**

This study will be very useful to the management of government agencies and departments within the various District Assemblies to know the effect of the RBAA on internal control systems and the best way to handle complex issues related to RBAA.

### **1.5.3 Academia and Further Research**

Again, it will be relevant for academic purposes. Thus, the study will serve as a base for further research for students, both internal and external auditors and others who are interested in studying similar topic.

## **1.6 Scope and Limitation of the Study**

The focus of the study was to investigate the effect of Risk-Based Audit Approach on the implementation of internal control systems of government departments and agencies in Kumasi metropolis. The research was limited to heads and audit staff of selected government departments and agencies in Kumasi metropolis due to difficulty in gathering data from all the departments and agencies. The departments included the Regional Treasury, Lands Commission, Stool Lands, Cocoa Swallow Shoot and Virus Division, Urban Roads, and Ghana High Ways.

## **1.7 Methodology**

The research design consists of a case study on the effect of Risk Based Audit Approach (RBAA) on internal control systems of government departments and agencies in Kumasi metropolis. The study targeted the officers working in the government departments and agencies in the metropolis with a specific interest on the 130 staff of internal and external audit units of the selected government departments and agencies in Kumasi Metropolitan Assembly. Due to the relatively small number of the population, the non-probability method was used to select all the (130) participants.

This study particularly used questionnaire administration both open and close ended questions to solicit information from the various categories of the respondents. The data collected was coded to enable the responses to be grouped into limited number of categories and analyses and was presented in a tabular form, and narrative forms. The study employed descriptive statistical tools such as mean and standard deviation as well as raw mean weight to analyze the data collected.

### **1.8 Organization of the Study**

The study was structured into five chapters. Chapter one captured the background of the study, problem statement, objectives of the study, research questions, justification of the study, scope of the study, brief research methodology and organization of the study. Chapter two looked at an extensive review of existing literature on internal audit control practices and its effectiveness in the public sector. Chapter three discussed the methodology used to accomplish the study. Chapter four presented the research findings, analysis and discussion. Chapter five looked at the summary of findings, recommendations and conclusion of the study.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter reviews the extent of literature on the concept and theory of Risk-Based Audit Approach (RBAA) in implementing internal control system in public sector institutions. The chapter provides a broad discussion and review of RBAA and internal controls by prior researchers. Furthermore, the challenges of internal control systems in the case study institution were also discussed.

#### **2.2 The Concept of Internal Controls**

Various literatures have many definitions of internal controls from both institutional bodies and individuals. However, the definitions of internal control are sufficiently exact to avoid misunderstanding and are also comprehensive enough to encompass most performance objectives that are applicable to all organizations, and to accommodate existing definitions (Klu, 2014; Kwayie, 2015).

Giriūnas (2016) is of the view that, the main problem of internal control is related to the definition of control conception and the identification of the place of internal control in an organization. Constant changes of the extent, functions and roles of internal control enable to form a common definition of internal control and to identify

its place in an organization. Therefore, analysis of the concept of internal control and its interpretation are essential for assessing the internal control system of organizations.

Internal control is the process designed and affected by those in charge with governance, management, and other personnel to provide reasonable assurance about the achievement of the entity's objectives with regard to liability of financial reporting effectiveness and efficiency of operations and compliance with applicable laws and regulations (Kwayie, 2015). Internal control is designed and implemented to address identified business risks that threaten the achievement of any of those objectives (Committee of Sponsoring Organizations [COSO], 2014).

Price Water House Coopers (2017) defined an internal control system to consist of all procedures methods and measures (control measures) instituted by the board of directors and executive management to ensure that operational activities progress in proper fashion. Kenneman (2014) describes internal control as those mechanisms that are in place to either prevent errors from entering the process or detecting errors once they have. That is, internal controls are those processes that management relies on to make sure things do not get goofed up.

In accounting and auditing, internal control is defined as a process effected by an organization's structure, work and authority flows, people and management information systems, designed to help if the organization's resources are directed, and measured (Akyaa, 2014). Considering the various definitions provided by authorities and earlier writers on the subject, internal control reflects the following fundamental concepts; internal control is a process, people related and give a reasonable assurance to the major stakeholders of the organization.

### **2.3 Internal Auditing Capacity**

Since mid-1970s, events have contributed to the growth of internal auditing. The Foreign Corrupt Practices Act of 1977 mandated public companies to establish and maintain effective internal accounting controls to provide reasonable assurance that assets are safeguarded and that transactions are properly authorized and recorded (Kwayie, 2015). To accomplish this, many companies established internal audit functions, increased internal audit staffing, and strengthened internal audit independence.

Beasley et al (2016) show that these investments in internal auditing have been effective, as companies with internal audit staffs are less prone to financial fraud than companies without internal auditing. Also, Coram et al (2017) find that organizations with internal audit staffs are more likely than those without internal auditing to detect and self-report occurrences of fraud. The number and magnitude of errors requiring adjustment by the external auditors have been found to be substantially lower for entities that had an internal audit department compared to those that did not have an internal audit department (Wallace & Kreutzfeldt, 2014).

The internal audit function is important because it adds value and therefore reduces detected errors (Goodwin & Kent, 2014). In 1987, a report by the Treadway Commission recommended that public companies establish an internal audit function to be fully supported by top management and have effective reporting relationships. This means that the internal auditors' qualifications, staff, status within the company, reporting lines, and relationship with the audit committee of the board of directors must be adequate to ensure the internal audit function's effectiveness and objectivity (Treadway Commission, 1987).

The report urged that the internal audit function be staffed with an adequate number of qualified personnel appropriate to the size and the nature of the company (Treadway Commission, 1987). The New York Stock Exchange enacted a requirement in 2014 that all listed companies must have an internal audit function, either in-house or outsourced. This requirement was on internal auditing can avoid unnecessarily duplicating audit procedures (Wallace & Kreutzfeldt, 2014).

The internal auditors generally have more knowledge about the company's procedures, policies, and business environment than the external auditors. However, external auditors must reconcile the advantages of relying on internal auditing with the need to maintain both the appearance and reality of independence as defined for external auditors (Gramling, Maletta, Van de Beek & Church, 2014). According to Norman (2015), emerging request from boards is that internal auditors review and comment on the organization's governance policies, processes, and practices. The Institute of Internal Auditors (IIA) recognizes this in its International Standards for the Professional Practice of Internal Auditing (Standards). The internal audit activity should evaluate and contribute to the improvement of risk management, control, and governance processes using a systematic and disciplined approach." Internal audit quality, which is determined by the internal audit department's capability to provide useful findings and recommendations, is central to audit effectiveness. Internal audit has to prove that it is of value to the organization and earn a reputation in the organization. Internal audit has to evaluate its performance and continually improve its service (Gramling et al., 2014).

According to Ziegenfus, (2017), audit quality is a function of the level of staff expertise, the scope of services provided and the extent to which audits are properly



planned, executed and communicated. The IIA's standard, 1210 on proficiency of the auditor require that the internal auditors possess the knowledge, skills and other competencies needed to perform their responsibilities (IIA, 2014).

The auditors should be interested in attending courses for the purpose of gaining professional qualification, such as for certification as an internal auditor and the employer can provide financial support (Krishnan, 2015). Since, internal audit work requires knowledge and experience on a wide range of systems and operations, it is imperative to deploy auditors with extensive professional skills and to upgrade their skill approved by the Securities and Exchange Commission (SEC) later in that year. Given the high level of staffing with temporary employees, the difficulty of recruitment and retention of auditors with the right technical proficiency is evident (Ziegenfus, 2017).

Krishnan (2015) revealed that the auditors view the office as given insufficient attention in terms of staffing. Continuous skill upgrading is another dimension that deserves attention so as to achieve a high level of technical proficiency. Therefore, audit quality is arguably a function of extensive staff expertise; reasonableness of the scope of service; and effective planning, execution and communication of internal audits. The audit activity needs a professional staff that collectively has the necessary qualifications and competence to conduct the full range of audits required by its mandate (Krishnan, 2015). In order to ensure good governance, auditors must comply with minimum continuing education requirements established by their relevant professional organizations and standards. The head of the audit activity must be able to effectively recruit, retain, and manage highly skilled staff. Moreover, the chief audit executive should be an articulate public spokesperson for the audit activity (Kunkel, 2014).

## **2.4 Risk-Based Audit Approaches Used In Internal Control Activities**

### **2.4.1 Risk Management**

The separation of ownership and management functions and the presence of information asymmetry introduce the possibility of principal-agent conflicts (Haniffa & Hudaib, 2016); it also incurs risks to stakeholders in the organization management, shareholders and creditors (Spira & Page, 2014). Those agency conflicts, agency costs and risks are now managed within the corporate governance framework through accountability mechanisms, such as internal control and audit (Haniffa & Hudaib, 2016).

Stakeholders now compete to participate in corporate governance to seek power in organizations by asserting their own conceptions of risk and how it should be managed, and a focus on risk management has become central to this competition since it defines the accountability of the management of the organization (Spira & Page, 2014). This is consistent with Hay and Knechels (2016) argument that the demand for auditing is a function of the set of risks faced by individual stakeholders in an organization and the set of control mechanisms available for mitigating those risks. Therefore, internal auditing risk management orientation has given the audit function increased credibility across the enterprise and greater acceptance by management (Beumer, 2016).

Through Risk based audit, sound risk management strategies are put forward looking and helps to improve business decisions (Fatemi & Glaum, 2017). It is not just about avoiding or minimizing losses, but about dealing positively with opportunities. It is a powerful tool for public sector managers (Drzik, 2017). Good risk management is based on a well-planned, logical, comprehensive and documented strategy. This

strategy provides general policy guidance, and plans and procedures that can be used as part of the organization's everyday work to manage risk (OECD, 2015).

The Risk Based Internal Auditing (RBIA) approach involves management to a far greater extent. The risks to be covered in audits will exist in all parts of the organization and audits will therefore involve managers in departments never visited before (Millichamp, 2018). Many risks will be very significant to the organization and the discussion of their controls will involve more senior managers and directors than might be involved in traditional finance orientated audits (Al-Tamimi, 2018). RBIA emphasizes management's responsibility for managing risks. Audits will involve more discussion with managers about their risks and their responses to them. There will be an initial meeting with managers, possibly involving a risk workshop to examine risks in greater depth, and contact throughout the audit to discuss issues (Schnatterly, 2016).

The following IIA major roles are required in risk management: determining processes and their objectives identify risks that hinder the processes with management, test and controls mitigating the risks, reporting where risks are not sufficiently mitigated by controls and assure management that risks are mitigated to an acceptable level. This has been made easy with adoption of RBAA in the public sector (Millichamp, 2018). Through enhanced capacity building for internal audit staff to update their knowledge and competency in dealing with modern trends in risk management and also establishment of audit committees are some of the measures that have been put in place to contain and manage risks (Schnatterly, 2016). Through RBAA, the audit activity provides useful and relevant information to the organization for managing its risks.

The objective of RBAA is to provide independent assurance to the board that there is a sound of risk management framework within the organization, and risks that may affect the organizations business objectives and strategies are being identified, managed and reduced to a level that is acceptable to the board (IIA, 2014). One indication of risk management framework is the existence of a separate committee or group, comprised of directors and managers (Goodwin-Stewart & Kent, 2016) to develop risk management development policy.

#### **2.4.2 Annual Risk-Based Planning**

Planning is generally considered a vital internal audit activity and it includes preparing a strategic plan, annual plans and programs for individual risk based audit assignments. The operational standard of the Internal Audit, dealing with the planning aspects of the internal audit, requires the preparation of a strategic plan – usually a five-year plan, a periodic (annual) plan and plans for individual audit assignments (Karapetrovic, 2014).

Most organizations' internal audit offices do not develop a strategic plan, the exercise of which would have enabled the audit staff to evaluate risk and identify high-risk areas that deserve audit attention. It could also have been an exercise by which the head of internal audit ensures the appropriateness of resources by projecting requirements in a timely fashion thus enhancing good governance.

The Internal Audit Office of many institutions prepares annual plans for their operations. Nonetheless, an annual plan prepared as a subset of a strategic plan is more useful (Sanda, Milkailu & Garba, 2015). An effective internal audit function requires the head of the internal audit office to periodically report to senior management on the internal audit activity's purpose, authority, responsibility and

performance relative to its plan. In some situations where there is poor governance, there is no such practice and the Internal Audit Office communicates with top management only via annual audit plans and the reports on individual audit assignments (Wade, 2015). Proper planning enables accomplishment of a large number of audits in a given period by improving efficiency. In some cases the numbers of the audit engagements are completed in the budgeted time and the number of actual audits performed in a period is usually less than the number of audits stated in the annual audit plan (Sanda, Milkailu and Garba, 2015). This is usually caused by ad-hoc audit assignments by the management and urgent requests by external parties. Ad-hoc audit assignments signify the relevance of internal audit to management (Van Gansberghe, 2015), and reflect positively on audit effectiveness and also in good governance. The supply side argument suggests that during the audit planning stage, auditors assess corporate governance risk and plan procedures or charge risk premiums based on their assessment (Karapetrovic, 2014).

In planning the engagement and determining its scope, the external auditor's main objective is to gather evidence to support giving an opinion on the financial statements. Secondly, and as a product of the audit, the composition of the governance body and what matters are to be communicated. When planning the engagement, the internal auditor is not required to design procedures specifically to gather information to report to the governance body (Karapetrovic, 2014). Rather, matters to be communicated are those which come to the auditor's attention in the course of the engagement and which the auditor deems to be significant and relevant to the governance body. To make clear the scope of the work and their responsibilities regarding communication, the internal auditors may elect to include this information in an engagement letter.

According to Davidson et al (2015), an auditor's duty is to give a fair and truthful view of a client's set of company accounts, but auditors cannot guarantee that the company accounts are entirely free of errors and irregularities. Therefore, in their audit planning, auditors must identify and assess the risk that they need to discover. If an item is discovered, auditors must consider the context and presentation of the item and then decide whether it affects the true and fair view of the company accounts (Seddon, 2017).

The Statements of Auditing Standards, SAS 220, states that 'Auditors should consider materiality and its relationship with audit risk when conducting an audit' (O'Regan, 2018). However, in pre-audit, management abdicated their responsibilities to internal audits; there were no audit reports and no review of the system by management. On the other hand, systems audit was passive and reactive control based audit with no involvement of management in audit planning (Seddon, 2017). Therefore, for internal audit to be effective and efficient, Risk Based Audit Approach (RBAA) was introduced. Internal Auditing Standards: The principles of good governance transparency and accountability, fairness and equity, efficiency and effectiveness, respect for the rule of law and high standards of ethical behavior represent the basis upon which to build open (OECD, 2015).

For Risk Based Audit Approach to provide good governance in public sector they must embrace the International Auditing Standards that guide the internal audits ethics of work and maintain Professional Auditing Standards. As organizations grow in size and complexity, effective risk management becomes increasingly problematic (Fraser & Henry, 2015). Previous study for demand of internal auditing linked to the cost vs. benefit from undertaking monitoring (Goodwin-Stewart and Kent 2016).

Carcello et al. (2015) asserts that increased organizational complexity would result in greater risk and companies facing higher risk will increase their organizational monitoring. In addition, from transaction cost perspective, larger firms have opportunities to gain economies of scale from investment in the fixed costs of internal auditing (Seddon, 2017).

## **2.5 Theory of Auditing**

Risk Based Audit Approach is guided by the audit methodology which is a component of the theory of auditing or the axiomatic method of auditing. (Mautz and Sharaf 1992) explained RBAA as the scheme of auditing knowledge that is pictured in the form of pie-shaped chart. The entire chart represents all knowledge. At the center is a hard core of the most fundamental types of knowledge, metaphysics, logic, and mathematics. Included in this level of knowledge is the definition or purpose of the field and the fundamental nature of its knowledge and methodology. Its postulates, the basics for inferring concepts, must relate to and be harmonious with this purpose and recognize the possibilities and limitations of its development and evaluation of Risk-Based Audit Approach methodology.

Every field must have a foundation and it must never permit itself to become separated from the elemental disciplines from which it draws strength. The field of auditing grows outwards from its philosophical foundations; it enters the area of conceptual structure. Then come the precepts and the area of practice and practical applications and then showing the adjacent fields of knowledge. This auditing theory indicates the changing role of audit and anticipates more changes in future (Nyarombe, Musau, Kawai, Kipyegon, 2015).

### **2.5.1 Risk-Based Audit Approach Theory**

Risk-Based Audit Approach theory argues that clients' specific experience increases an auditors' ability to assess future client risks accurately. However, prior research in psychology suggests that individuals tend to overweigh experience when faced with current risk cues that conflict with experience (Nyarombe et al., 2015).

This design examines the consequences of prior, positive client-specific experience and efficiency pressure, represented by costly risk cues, on the ability to generate an effective risk assessment. The results indicate that individual's bias toward prior experience. Efficiency results suggest that higher cue costs result in suboptimal risk cue selection, but do not negatively influence risk assessment effectiveness.

Risk audit theory argues auditor evaluations during the audit become more effective with client-specific experience (Bell et al., 2015; Bell & Solomon, 2018). Rather, there is a risk that auditors will rely on historical client-specific experience, which is backward-looking in nature, in addition to gaining this increased client-specific knowledge. The risk-based internal audit of the theory is applied to the internal control system and risk management, requiring all departments should establish risk management awareness, identify the risk control points, risk take appropriate measures to control, and recorded a variety of risk control, creating risk-based internal audit of the important sources of data (Doolin & Lawrence, 2014).

According to this theory, responsibility of identifying and managing risks belongs to management, while one of the key roles of internal audit is to provide assurance that those risks have been properly managed (Alexander, 2014). Professional internal audit activity can best achieve its mission as a cornerstone of governance by positioning its work in the context of the organization's own risk management framework. This involves looking at the way managers identify, assess, respond to and report risks, as



well as how well managers monitor how responses to risks are working (Bell et al., 2015).

## **2.6 Empirical Review**

Shiu (2017) aimed at investigating the current use of RBAA by Taiwanese banks and to explore factors associated with the adoption of RBAA by Taiwanese banking industry. To understand banks' demand of RBAA, the study examined whether the use of RBAA varied with factors reflecting banks' risk management, internal control, corporate governance and internal auditors' technical competence (Shiu, 2017).

The models tested in the study found empirical support that banks that use a relatively high level of RBAA will disclose more information about financial risk management, compliance risk management, technology risk management and have a higher ratio of Non-Performing Loan. The results supported the null hypothesis that the level of RBAA employed is positively associated with the bank's risk management.

However, the results presented that the use of RBAA is negatively correlated with information disclosure about environmental and safety risk management, internal process risk management, and change management. A paradigm shift in the internal audit of the commercial banks was deemed obvious as the traditional system of internal audit had been concentrating on the testing transaction, testing of accuracy and reliability of accounting records and regulatory compliance. Reserve Bank of India in one of its guidance note issued in 2018 on the subject stated that historically the audit system in banks had been concentrating on transaction testing, testing of accuracy and reliability of accounting records and financial reports, integrity, reliability and timeliness of control reports and adherence to legal and regulatory requirements. But risk inherent in the process of business and controls are mostly

overlooked. Such risk identification and management issues have also been identified repeatedly in the Basel principles. Basel principles highlighted the importance of risk based capital assessment, risk based bank supervision and risk based internal audit in banks. Banks operating in Bangladesh have already started adoption of Basel II, a risk based capital adequacy standard (The Bangladesh Accountant/October - December 2009).

Amudo and Inanga (2017) concluded that an internal control system is a topical issue following global fraudulent financial reporting and accounting scandals in both developed and developing countries. A proactive preventive approach to the problem requires a critical evaluation of existing internal control structures in organizations to determine their capacity to ensure that the organization's activities are carried out in accordance with established goals, policies and procedures. The study was on the Regional Member Countries (RMCs) of the African Development Bank Group (AfDB) focusing on Uganda in East Africa.

The paper developed a conceptual model used in evaluating the internal control systems in Public Sector Projects in Uganda financed by the African Development Bank. The outcome of the evaluation process was that some control components of effective internal control systems was lacking in these projects and this rendered the current control structures ineffective. The study ended with recommendations to improve the existing internal control systems in the projects and suggested areas for further research.

Baffour (2017) observed in the study of four major issues as discussed below: to identify the functions and role of the Internal Audit Department, to identify the ethical guidelines of the internal audit department to satisfy the ethical guidelines of organizational status, objectivity and independence. In addition, Baffour (2017)

identified that the company had a control environment that was adequate for the operations of the company, in spite of the major challenge of the internal audit department being the small number of staff.

## **2.7 Effects of Risk-Based Audit Approach on the Implementation of Internal Control**

Griffiths (2016) indicates that one major change demonstrated by the audit report usually consists of a confirmation that controls are operating properly (a term not often defined), and makes recommendations where they are not. The making of recommendations by internal auditors, which managers are expected to accept, could result in the assumption that internal audit were responsible for controls and, by implication, risk management. However, the Turnbull Guidance (and guidance subsequently issued by other organizations) emphasized the reality: managers are responsible for developing the responses to risks and for deciding the action to be taken if risks are not properly controlled.

According to Griffiths (2016), internal audit score role is to provide an opinion to the management and board on the effectiveness of risk management. Where the opinion states risk management to be ineffective, the onus is on management to implement the appropriate response. Internal audit may still make recommendations, but this is part of a “consultancy” role. Splitting the role of internal audit in this way, has a major implication for the internal audit department: If no risk management framework is in place (risk naïve or risk aware organizations) risk based internal auditing cannot be carried out as there is nothing on which to base the audit work. Only consultancy work to facilitate the implementation of a risk management framework is possible.

### **2.7.1 Effects of RBAA on the Implementation of Cashbook Management System**

Cash management requires adequate cash flow forecasting, as well as effective and efficient use of cash balances. In the management of cash balances, most authors suggest that the creation of a Treasury Single Account (TSA) is the only solution (Schiavo-Campo and Tomassi, 2014; Dorotinsky and Pradhan, 2015). Through Risk based audit sound risk management strategies which are forward looking and helps to improve business decisions (Fatemi and Glaum, 2016). It is not just about avoiding or minimizing losses, but about dealing positively with opportunities. It is a powerful tool for public sector managers (Drzik, 2014). Good risk management is based on a well-planned, logical, comprehensive and documented strategy. This strategy provides general policy guidance, and plans and procedures that can be used as part of the organization's everyday work to manage risk. The Risk Based Internal Auditing (RBIA) approach involves management to a far greater extent. The risks to be covered in audits will exist in all parts of the organization and audits will therefore involve managers in departments never visited before (Millichamp, 2018).

Many risks will be very significant to the organization and the discussion of their controls will involve more senior managers and directors than might be involved in traditional finance orientated audits (Al-Tamimi, 2018). RBIA emphasizes management's responsibility for managing risks. Audits will involve more discussion with managers about their risks and their responses to them. There will be an initial meeting with managers, possibly involving a risk workshop to examine risks in greater depth, and contact throughout the audit to discuss issues (Schnatterly, 2016) The following IA major roles are required in risk management: determining processes and their objectives identify risks that hinder the processes with management, test and controls mitigating the risks, reporting where risks are not sufficiently mitigated by

controls and assure management that risks are mitigated to an acceptable level. This has been made easy with adoption of RBAA in the public sector (Millichamp, 2018). Through enhanced capacity building for internal audit staff to update their knowledge and competency in dealing with modern trends in risk management and also establishment of audit committees are some of the measures that have been put in place to contain and manage risks (Schnatterly, 2016). Through RBAA, the audit activity provides useful and relevant information to the organization for managing its risks.

Institutional arrangements vary from a TSA in a central bank with direct payments, to use of commercial banks, zero-balance arrangements and nightly sweeping. Many developing countries have implemented some variant of a TSA, but there does not appear to be many evaluations of the overall impact of this reform (Schiavo-Campo & Tomassi, 2014).

### **2.7.2 Effects of RBAA on Implementation of Supply Chain Management System**

Supply Chain Management is the systemic, strategic coordination of the traditional business functions and the tactics across these business functions within a particular company and across businesses within the supply chain, for the purposes of improving the long-term performance of the individual companies and the supply chain as a whole (Morgan et. al., 2016).

Supply chain management (SCM) is the management of a network of interconnected businesses involved in the ultimate provision of product and service packages required by the customers (Harland, 2018). Supply Chain Management spans all movement and storage of raw materials, work-in-process inventory, and finished goods from point of origin to point of consumption. Supply Chain Management

involves the sharing of risk with suppliers. This can involve moving the risk up the supply chains to those suppliers best able to manage it. Such devolution of risk will come at a cost and so to that extent it is an economic decision (Schiavo-Campo & Tomassi, 2014).

The spate in the government departments and agencies “ supply chain risks and the accompanying pressure from regulatory bodies, changing legislation, customers, and cut-throat competition are forcing many forwarding looking government departments and agencies to implement supply chain risk management. Some of the merits associated with supply chain risk management are gaining sustainable competitive advantage (Enyinda et al., 2017), fewer surprises, better decision making, achieving an improved balanced between opportunity and threat, enhanced competitive position, and manage suppliers more effectively (O’Brien & Joyce, 2015).

However, it has been acknowledged that the most challenging aspect of supply chain risk management is the identification of risk factors for mitigation. Therefore, to ensure government departments supply chain resiliency and continuity, it is imperative to effectively assess risks and develop a comprehensive mitigation approach by adopting Risk Based Audit Approach (Srividhya & Jayaranman, 2015).

A well-organized, efficient and transparent public procurement system is a vital component of any sound PFM system and transcends the budget process from procurement planning to audit. “Public procurement systems are at the center of the way public money is spent since budgets get translated into services largely through the government’s purchase of goods, works, and services” (OECD 2015). It is widely acknowledged that it is also the process most susceptible to bribery and corruption, with TI estimating that annually US\$ 400 billion is lost worldwide (Ware et al, 2015). Procurement reform is taking place throughout the world.

Industrialized countries are refining and improving their procurement systems to reflect changes in their purchasing profiles (how and what they buy), middle-income. The Treasury Single Account should be referred to, more correctly, as a Treasury Consolidated Fund (a bank account or a series of connected bank accounts through which all government transactions are processed). Countries are modernizing their systems in response to growing public demand for greater efficiency and effectiveness, and transition economies, moving from a state driven to a market based economy, are developing competitive public procurement practices (Hunja, 2016).

In many developing countries, procurement systems were based on pre-independence regulations and are now being modernized to improve their efficiency and reduce the potential for corrupt activities (Hunja, 2016). Key principles of procurement reform include the promotion of rules-based systems, competition, transparency, accountability, economy and efficiency.

A well-functioning procurement system is therefore one that has a strong legal framework, institutional arrangements that ensure consistency in policy formulation and implementation, and a professional cadre of procurement personnel. However, according to Syquia (2015), the key challenge is to adapt these principles to the overall governance conditions in the specific country. According to the KEMSA procurement Review Report (2017) it highlights issues which represent deviations from achieving proficiency of their key supply chain functions. KEMSA has failed to develop arrangements that clarify accountability and contract administration and management structures for delivery of orders, internally and externally. There have also been issues with the effective development and standardization of specifications, because of conflicting interests from users, which have delayed the tendering process (Schiavo-Campo & Tomassi, 2014).

Comprehensive suppliers' evaluation and assessment reports are inefficient and are not conducted periodically. There is a considerable focus to encourage supply chain professionals to incorporate risk management strategies in the development of the supply chain strategies. Considerable research has been conducted on risk management strategies in the supply chain, with a bias on the logistics function of the supply chain and the financial impact of risks in the supply chain (Zsidisin & Ellram, 2014; Zsidisin et al., 2017; Zsidisin, 2014; Harland, et al., 2014; Chopra & Sodhi, 2014; Christopher & Peck, 2014; Kiser & Cantrell, 2016).

Effects of Risk Based Audit Approach on the implementation of Revenue Collection System: Tax revenue reform has been widely influenced by four main theoretical approaches (Lord et al 2014). These are:

- i) the Public Economics Approach, which emphasizes the (micro-economic) efficiency and equity of taxation systems;
- ii) the Macro- Economic Approach, which emphasizes the impact of taxation on economic aggregates e.g. distribution of household income, levels of savings, level of inflation and public debt;
- iii) the Administrative Approach, which emphasizes effectiveness and efficiency in terms of the administrative cost of collecting tax and the cost of compliance and
- iv) the Political Approach, which recognizes the inherent political nature of the taxation process and the various preferences and incentives in existence.

The scope of this review excludes policy related literature. The following paragraphs therefore focus only on two of the main administration “models.” This does seem to



assume that the technocrats are not political appointees themselves. Theoretical Models and Approaches to PFM Reform (Schiavo-Campo & Tomassi, 2014).

The first approach re-aligns organizational activities on a functional basis. Example, collection, education and audit services, rather than on a tax basis. As part of this shift, a number of revenue bodies have also created large taxpayer units (LTUs) to concentrate limited resources on dealing with all aspects of large taxpayer compliance. The advantages of such an approach are considered to be strengthened accountability, risk-based allocation of resources and better matching of enforcement, service, and educational programs to specific types of taxpayers (Crandall & Bodin, 2015). Consequently, multi-lateral and bi-lateral donors seeking greater efficiency and ways to minimize corruption have promoted many of these changes, in developing and middle-income countries.

The second approach that gathered pace in the early nineties, involves the establishment of Semi-Autonomous Revenue Agencies (SARAs). Some are in developed countries, but most of them almost forty, are in Latin America and Africa. According to Kidd and Crandall (2016), there is no standard governance “model”, but they all have some form of independence from standard public service policies. However, they note that the degree of autonomy varies, with the US having comparatively low levels and Kenya and Peru having relatively high levels.

The driving forces behind their creation were low levels of collection, widespread perception of corruption and pressure from international aid agencies. There are various arguments for and against this model. Claimed advantages include greater operational autonomy and freedom from political interference. Some potential problems include the adoption of an enclave approach, negative impact on morale of

other government departments and the inherent conflict between the SARA and the MoF.

### **2.7.3 Effects of RBAA on the implementation of Expenditure Control System**

In the public sector, controls are mainly in built in the public financial management system. Public financial management includes the legal and organizational framework for supervising all phases of the budget cycle, including the preparation of the budget, internal control and audit, procurement, monitoring and reporting arrangements, and external audit.

The broad objectives of public financial management are to achieve overall fiscal discipline, allocation of resources to priority needs, and efficient and effective allocation of public services (Baltaci and Yilmaz, 2016). An internal audit function is an essential part of any public expenditure management system and should ensure that public spending is within budgetary provisions; disbursements comply with specified procedures, provides for the timely reconciliation of accounts and effective systems for managing and accounting for physical and financial assets (Commonwealth Secretariat, 2015).

According to Baltaci and Yilmaz (2016), the effort to reform a fiscal system should include internal control and audit due to the crucial role they play in enhancing accountability and effectiveness. Internal audit provides both governments and related parties with a powerful tool for understanding the extent to which the public institution in question has delivered on budget and effective services. Internal audit activity has become an essential internal assurance mechanism in public financial controls and tool for monitoring and evaluating managerial activities prior to external

evaluation by external auditors. A government budget should reflect what it says it will do (government policies).

A medium-term perspective is crucial for improving links between policy, planning and budgeting (Holmes & Evans 2014). According to Holmes and Evans (2014), “the appeal lies in their potential to link the often competing short-term imperatives of macroeconomic stabilization with the medium and longer-term demands on the budget to contribute to improved policy making and planning, and to the efficiency and effectiveness of service delivery” as an integral part of the annual (Baltaci and Yilmaz, 2016).

World Bank (1998) describes budget process as consisting of “a top- down resource envelope, a bottom-up estimation of the current and medium-term costs of existing policy and, ultimately, the matching of these costs with available resources”. In practice, Brumby (2017) states that creation of macro-economic and fiscal envelopes, determination and articulation of high level policies, bidding by departments in the context of agreed amounts, iterative bidding processes and achievement of a credible budget reconciling policy and available resources. By implication, he notes that this requires a significant amount of capacity, including adequate data and skills, an ability to set priorities, acceptance of the coordinating role of The National Treasury (TNT) and at the sector level a coordinating ministry, and discipline and control in both the management of bids and in budget execution.

However, Kerny (2015) in “Budget Practices and Procedures Survey” which covers the 38 countries, only 19 had multi-year expenditure targets - 13 at an aggregate level, four at ministry or agency level, and two at line item level. Donors have supported the introduction of context of poverty reduction strategies in several developing countries. An evaluation by Holmes and Evans (2014) strategy implementation in eight African

countries and Albania, showed that overall results had been mixed with only South Africa and Uganda (possibly) in the maturing category. They also noted that following the initial study, progress in Albania and Rwanda was actually going backwards. A more recent World Bank (2017) report states “although strategy implementations have been challenging for many developed countries, Albania, Burkina Faso, South Africa, Tanzania, and Uganda have adopted well-functioning systems, with Bank support.”

Schiavo-Campo (2017) is less convinced of the success of strategy implementations, and states that “the lesson from the discouraging experience so far is certainly not to forget the need for a medium-term perspective for the annual budget, but to re-size, redefine and reformulate the approach in a manner suitable to the possibilities and constraints of the different countries.”

## **2.8 Challenges Encountered by RBAA in Implementing Internal Control Activities**

The reform of public sector management has become a global trend since the beginning of the 1980s (Pollitt & Bouckaert, 2014). But local (such as county-level) responses have produced highly differentiated trajectories and results. There seems to be a certain distance between the contents of what was prescribed by a spate of reform laws and the actual diffusion of the corresponding management tools; and there seems to be an even larger distance between the mere presence and the actual utilization of the management tools. Major challenges of internal controls and causes of accountability malfunctioning are; desire of the management to achieve certain reporting results, inappropriate and unreasonable executive compensation arrangements, confusion over who is responsible for internal control, indefinite segregation of duties, select and reject procedures, personal interest over public

interest, compliance with rules and regulations as against principles and values, the right against the acceptable, the issue of substance as against legal form, concern with both fact and appearance and rapidly changing business environment (Holmes and Evans, 2014).

They noted that the implementation of even the most comprehensive control system will not be free from these challenges. The success of a control system largely depends on how these challenges are managed (Steinhoff & Franzel, 2016). Kimwele (2014) noted that, in the public sector there is general shortage of skilled labor, and efforts to improve skills in government are often frustrated by migration of labor to the private sector for higher pay when workers have acquired sufficient skills. In corporate sector, risk management and risk based internal audit is considered as a highly skilled art or craft while it is an emerging discipline in government organizations in public sector and need sufficient training to hone employee skills in the subject (Holmes and Evans, 2014).

Abdullah and Al-Araj (2014), in their study, traditional audit verses business risk audit done in Jordan with a view to establish the audit approaches currently being used by auditors in Jordan established; absence of adequate training concerning application of RBAA, inability to evaluate business risk objectively, absence of professional efficiency possessed by auditors along with the absence of professional standards governing RBAA approach, misconception that RBAA is a consultancy rather than an audit approach, lack of clarity regarding business risk as having an effect on implementation and recommended training in relevant areas (Holmes and Evans, 2014).

Mihret and Woldeyohannis (2015) carried out their study on value added role of internal audit. Interview of evidence indicated that as a result of high-staff turnover,

the average tenure of auditors is low. Auditors leave the department via transfers to other departments in the corporation. On the other hand, transfers into the internal audit department are not significant. This results in more new recruits in the department, which adversely impacts the value-adding potential of internal audit.

In addition, the number of staff is not sufficient, given the large size and complexity of the corporation's operations. Effort to ensure provision of appropriate training, such as for certification as internal auditors, is not undertaken in a planned and continuous manner. There is no mechanism to ensure participation of auditors in training on the corporation's design of new systems, improvement of existing ones, and introduction of new services. This denotes that internal audit's value-adding role through involvement in development and revision of systems is limited (Lindow & Race, 2018). Since the nature of the business is complex and dynamic, providing continuous and focused training would be essential to attain value-adding internal audit results. Another challenge of internal control that is considered the enemy of internal control is collusion.

Collusion frustrates every aspect of the control process and presents risky situations as less risky. Most of the financial crises in the west are attributed to collusion. Audit staff will have to use more people and business skills, such as interviewing, influencing and problem solving. While most audit staff will welcome the opportunity to move away from audit programs to more risk and business based audits, some members of staff may find this move difficult. Training will certainly be required and some staff may have to be transferred (Holmes and Evans, 2014).

RBAA requires managers to face up to their responsibility for risks. It is easy for managers to compile a list of risks; it is a different matter to accept responsibility for them. In taking responsibility for risks, managers will understand that controls are not

the responsibility of internal audit, and hence imposed by that department, but are their own responsibility (Griffiths, 2016).

Rapa and Kauffman (2015) established that one of the reasons why strategy implementation processes frequently result in difficult and complex problems or even fail in total is the vagueness of the assignment of responsibilities. In addition, these responsibilities are diffused through numerous organizational units resulting in unclear individual responsibilities in the process. To avoid power struggles between departments and within hierarchies, one should create a plan with clear assignments of responsibilities regarding detailed implementation activities. This is a preventive way of proceeding which results in clear responsibilities and therefore avoid potential problems (Rapa & Kauffman, 2015).

Communication aspects should be emphasized in the adoption of risk based audit process. Even though studies point out that communication is a key success factor within risk based audit adoption communicating with employees concerning issues related to the RBAA is frequently delayed (Holmes and Evans, 2014). In this context, many organizations are faced with the challenge of lack of institution of a two-way-communication program that permits and solicits questions from employees about issues regarding the formulated strategy. Lack of communication causes more harm as the employees are not informed about new requirements, tasks and activities to be performed by the affected employees, and, furthermore, cover the reason behind changed circumstances (Rapa and Kauffman, 2015).

Shiu (2017) investigated current use of RBAA in Taiwanese Banking Industry and explored factors associated with the adoption of RBAA by Taiwanese banking industry. This prompted the researcher to assess whether the use of RBAA varied with factors comprising the internal control system not with regards to the banking industry

but to the public sector accounting. This study was carried out in Banking industry and not government departments.

Amudo and Inanga (2017) in their study on evaluation of internal control systems concluded that an internal control system is a topical issue following global fraudulent financial reporting and accounting scandals in both developed and developing countries. A proactive preventive approach to the problem requires a critical evaluation of existing internal control structures in organizations to determine their capacity to ensure that the organization's activities are carried out in accordance with established goals, policies and procedures (Holmes and Evans, 2014). This informed the researcher's to propose whether the risk based audit approach could be the proactive preventive approach to not only examine the capacity of the governments internal control systems for their capacity to attain the established goals, policies and procedures, but also to see if the existing internal control systems were ineffective. A sound internal audit function plays an important role in contributing to the effectiveness of the internal control system. It should provide the management with accurate information on the effectiveness of risk management and internal controls including regulatory compliance (Holmes and Evans, 2014). At present, there are various types of internal audit approaches, which basically adopt the methodology of transaction testing, testing of accuracy and reliability of accounting records and financial reports, integrity, reliability and timeliness of control reports, and adherence to legal and regulatory requirements. However, all these do not provide any opinion on the qualitative dimension of business management including risk management.

The effectiveness should also be according with the efficiency and both are the fundamental management responsibilities. Effectiveness is judged on the basis of the results on the implementation of ICS. In an organization, the success of ICS as well as



recognizing its effectiveness is based on meeting its objectives. The most effective representation of the control is done through recording. The manager has a responsibility to ensure that there is an internal control and therefore, emphasizing their function in monitoring the sales and the performance of the people (Holmes and Evans, 2014). This gives rise to the relation of internal control in detecting or preventing the misstatements or errors in the records thus, allowing the controls to be consistent to avoid the discrepancies in the values (CPA, 2018).

The researcher attempted to analyze whether the four issues raised by Baffour (2017) in his study also had a bearing on her study as they were very vital in enhancing the implementation of a risk based audit approach and again, add value to the internal audit department of The National Treasury. All organizations need an effective Internal Control System (ICS). The best ICS's are those with high senior management involvement both in their creation and ongoing monitoring and high awareness by all the people involved in the business (Holmes and Evans, 2014). The effectiveness of the Internal Control System is a combination of the ease with which people can understand the risk analysis and the monitoring of the time it takes to find and resolve incidents, and this is where the RBAA comes in. The two factors together enable cost effective modifications to be made to the ICS in the light of the actual risks facing the organization.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 Introduction**

This chapter presents the methodology used in conducting the research. It involves the research design, study area, methodology, population, sampling technique, sample size and data collection and data analysis.

#### **3.2 Research Design**

The research design consists of a case study on the effect of Risk-Based Audit Approach (RBAA) on internal control systems in government departments and agencies in Kumasi. According to Kothari (2017), a case study provides a great deal of information that is accurate. A case study research was chosen to help gather data at a particular point in time and use it to describe the nature of existing conditions in relation to internal control systems in government agencies. Therefore the researcher found it necessary to use descriptive and analytical design for the study. The purpose of descriptive studies is to understand the characteristics of a group in a given situation, think systematically about aspects in a given situation, offer ideas for further research and help make certain simple decisions (Cooper & Schindler, 2014).

#### **3.3 Population of the Study**

According to Yount (2016), research population is defined as the total number of units from which data can be collected. Again, Burns and Grove (2014) describe population

as all the elements that meet the criteria for inclusion in a study. The study targeted the officers of government departments and agencies in Kumasi metropolis with a specific interest on the 130 heads and staff of internal auditors of the various government departments and agencies in Kumasi Metropolitan Assembly. The various departments selected were the Regional Treasury, Lands Commission, Stool Lands, Cocoa Swallow Shot and Virus Division, Urban Roads, and Ghana High Ways.

### 3.4 Sample Size and Sampling Techniques

Sampling is an essential stage in any survey research that involves the selection of a sample for the research. A sample is a selected group of objects from a target population on which data can be obtained (Yount, 2016). In this research, the sampling technique of the study is non-probability census. According to Kothari (2017), census involves sampling all the elements of the population. Census was appropriate in this study because the size of the population was small. The sample size consists of all the 130 departmental heads and audit staff members to ensure a fair representation. A sample size of one hundred and thirty (130) was used for the study as shown in Table 1 below.

**Table 3.1: Population and Sample Size of Respondents**

<b>Category</b>	<b>Population</b>	<b>Sample</b>
Management of KMA	25	25
Regional treasury	10	10
Stool Lands	15	15
Cocoa Swallow Shot and Virus Division	10	10
Urban Roads	10	10
Ghana Highways	20	20

Audit Staff	40	40
<b>Total</b>	<b>130</b>	<b>130</b>

**Source: Field Survey, 2018**

### **3.5 Source of Data**

The study utilized two major sources of data collection namely the primary and secondary sources of data gathering. Primary source of data were used to gather data from staff, management and internal auditors of the various government departments and agencies in Kumasi. The primary data was gathered using questionnaires administered to the respondents. Primary data has the advantages of reliability in view of the facts that it is the information gathered from the original sources.

#### **3.5.1 Primary Data**

Primary data is data collected directly from first-hand experience (Yin, 2014). Primary data were collected through administering of questionnaires. The researcher administered the questionnaires to the respondents in their various offices.

#### **3.5.2 Secondary Data**

A number of secondary data were also used to gather additional information on the research objective to support responses gathered from the questionnaires. The secondary source of data includes published and unpublished research articles, thesis, journals, books, and other reports. These sources were used in chapter four to help in the discussion of findings.

### **3.6 Data Collection Instrument**

A questionnaire was used as data collection instrument. A questionnaire is a printed self-report form designed to capture information through the written responses of the respondents. A structured questionnaire was used in collecting the data. The use of the questionnaire gives respondents the liberty to answer the questions at their own time and convenience. Respondents who required further explanations will be guided in completing the questionnaires. The questionnaire was made to collect demographic data and information related to the research objectives. The questionnaire was short in order to whip interest and encourage participation of respondents.

### **3.7 Data Collections Procedures**

This study particularly used questionnaire administration. Both open and close ended questions were administered to solicit information from the various categories of the respondents.

#### **3.7.1 Pre-Test of the Research Instrument**

A pilot test was conducted with a small group representative of the population to assess the face validity of the questionnaires. Respondents were asked to answer the questionnaire accompanied by interviews in order to refine the meaning, understanding, wording and formatting of the questionnaire. During the individual pretest, the researcher and each of the respondents went through each question to determine accuracy and consistency. Likewise, a list of questions was used to check on pertinent issues related to the pretest questionnaire. Revisions were made based on the feedback, comments and recommendations from the respondents.

Some of the major corrections done on the questionnaire included; (a) On question three, they recommended that the level of experience should be made to be more than 20 years because some of the staff members have worked for more than two decades. (b) Question 8 was changed from “What proportion of Risk-Based Audit Approach is involved in your audit plan” to “What proportion of Risk-Based Audit Approach is involved in your annual audit plan” and (c) the last statement under question 11 was also changed from “auditors review the major risks identified in the organization” to “Internal auditors review the major risks identified in the organization”

### **3.8 Data Analysis**

Data analysis involves transforming raw data to information for the sole purpose of making decision (Emory & Cooper, 2014). The data analysis involves reducing the data into manageable size, giving summaries and using statistical inferences. The data analysis involves editing to defect and correct errors and omissions to ensure consistency of respondents. The data collected was coded to enable the responses to be grouped into limited number of categories and analyses. The data was presented in a tabular form, and narrative forms. Quantitative methods such as regression were used to analyze the influence of Risk Based Audit Approach on internal control system.

#### **3.8.1 Measurement of Variables**

In order to establish whether there is a significant link between Risk Based Audit Approach and internal control system in the departments and agencies, multiple regression test was used to find the significance of the relationship. The following

table shows how the dependent variable (Internal Control System) was measured and the sources of the various items in the research instrument.

The various areas which were critically looked at in relation to Risk Based Audit Approach included proper safeguard of assets, financial regulations, review of major risks and good financial reporting.

**Table 1: Measurement of variables**

<b>Statement</b>	<b>Adopted from</b>
Bank reconciliation statements are up to date	Amudo and Inanga (2017), Fatemi and Glaum (2016)
Statement of assets and liabilities are reflective of the true position	Amudo and Inanga (2017), Drzik (2014) & Schiavo-Campo & Tomassi (2014)
Department assets are properly safeguarded	Drzik (2014) & Schiavo-Campo & Tomassi (2014)
Greater adherence to the laid down government financial regulations	Schiavo-Campo and Tomassi (2014), Amudo and Inanga (2017), & Baffour (2017)
Internal auditors review the major risks identified in the organization	Baffour (2017) & Drzik (2014)

Source: (Field study, 2019)

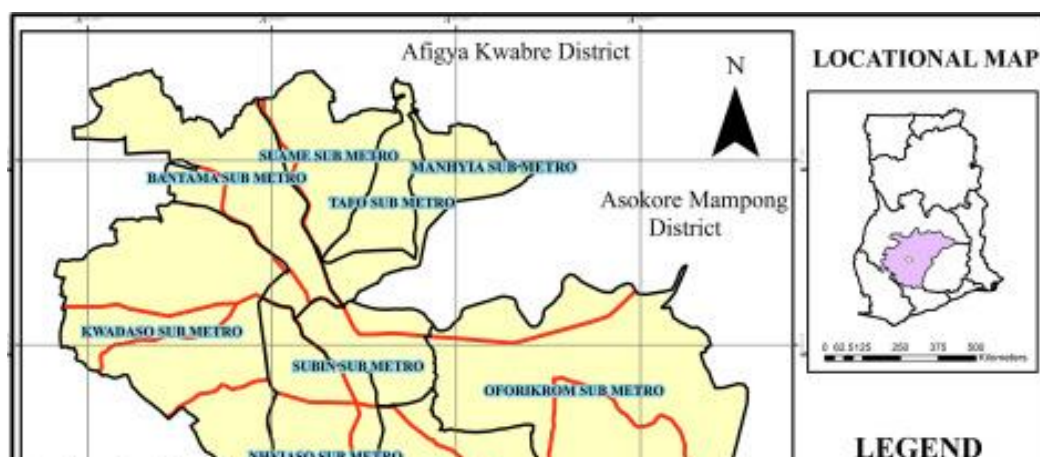
### **3.9 Profile of Kumasi Metropolitan Assembly**

The Kumasi Metropolitan Assembly is one of the thirty (30) districts of the Ashanti Region in Ghana. Kumasi Metropolitan corresponds to the city of Kumasi, the region's capital. Kumasi is a city in Ashanti Region, and is among the largest metropolitan areas in Ghana.

Kumasi is near Lake Bosomtwe, in a rain forest region, and is the commercial, industrial and cultural capital of Asanteman. Kumasi is approximately 500 kilometres (300 miles) north of the Equator and 200 kilometres (100 miles) north of the Gulf of Guinea. Kumasi is alternatively known as “The Garden City” because of its many beautiful species of flowers and plants. It is also called Oseikrom (Osei Tutu's town). It is the second largest city in Ghana after the capital Accra.

The Central Business District of Kumasi includes areas such as Adum, Bantama and Bompata (popularly called Roman Hill) is concentrated with lots of banks, department stalls, and hotels. Economic activities in Kumasi include financial and commercial sectors, pottery, clothing and textile. There is a huge timber processing community in Kumasi serving the needs of people in Ghana. Bantama High Street and Prempeh II Street in Bantama and Adum respectively have the reputation of being the hub of business and night life in Kumasi. It has the largest market in the country known as the central market where people all over the country shop and do business. The central market in Kumasi is the second largest market in West Africa.

The metropolis has over 40 senior high schools and 2 public universities namely Kwame Nkrumah University of Science and Technology and University College of Education, Kumasi. The various government agencies and departments available at the metropolitan assembly are the Regional Treasury, Lands Commission, Stool Lands, Cocoa Swallow Shoot and Virus Division, Urban Roads, and Ghana High Ways Authority.





**Figure 1: Map of Kumasi Metropolitan Assembly**

## **DATA PRESENTATION, RESULTS AND DISCUSSION**

### **4.1 Introduction**

This section presents results from the data analysis, interpretations and discussion. These are mainly inferential statistics and descriptive statistics. The descriptive data is presented in the form of tables. These are presented and discussed in line with the objectives of this research work as stated earlier in chapter one.

### **4.2 Data Presentation and Analysis**

#### **4.2.1 Data Reliability**

Reliability deals with how steady the information is, and to what extent does it give an exact portrayal of the research outline (Taber, 2014). If similar result of a study can be gotten utilizing a different data collection strategies then the research instrument is thought to be reliable (Taber, 2014).

**Table 4.1: Reliability Statistics**

Cronbach's Alpha	N of Items
.821	8

Source: (Field study, 2018)

The reliability statistics above shows that the Cronbach alpha for the research instrument was 0.821 which is at an acceptable level indicating that the items in the questionnaire are reliable. Taber (2014) states that Cronbach alpha for a research instrument's reliability is not part of the statistical tests but it measures how well a questionnaire could be depended upon and a Cronbach alpha of greater than 7.0 is acceptable. This data was managed by looking at the various comments made by the initial respondents and the necessary corrections needed were effected accordingly.

#### **4.2.2 Data Validity**

Validity is the assurance that, the research instrument has enough information to gather the needed information for proper data analysis (Taber, 2014). This helps to know if the study really measures what it was proposed to ascertain (Glass and Hopkins, 2014).To decide the fundamental structure among factors in the study, validity test was performed. Thus, basic factor investigation with Oblimin rotation and Kaiser Normalization was utilized.

**Table 4.2: KMO and Bartlett's Validity Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.712
Bartlett's Test of Sphericity	Approx. Chi-Square	1.8063
	Df	3
	Sig.	.000

Source: Field study, 2018

After the investigation was conducted, the Kaiser-Meyer-Olkin measure of examining ampleness was at a satisfactory level (0.712) which is greater than the acceptable value of 0.6 as indicated by (Glass and Hopkins, 2014), indicating that all the variables tested can be utilized to facilitate the analysis in this study, hence, the research instrument was valid for exploratory research.

#### 4.2.3 Qualification of Respondents

The researcher examined the qualification level of the respondents to determine the skills and competence level of the respondents both in answering the questionnaire and in responding to questions relating to Risk-Based Audit Approach in government institutions.

**Table 4.3: Qualification of Respondents**

<b>Qualification</b>	<b>Frequency</b>	<b>Percent</b>
BECE	0	0.0
WASSCE	0	0.0
DBS	0	0.0
HND	29	22.3
1 <sup>st</sup> Degree	56	43.1
2 <sup>nd</sup> Degree	34	26.2
Professional	11	8.4
<b>Total</b>	<b>130</b>	<b>100.0</b>

**Source: Field study, 2018**

With regards to the level of qualification of the respondents, it is observed that 29 (22.3%) of the respondents had Higher National Diploma (HND) certificate. Also, 56 respondents representing 43.1% and 34 respondents representing 26.2% had first degree and second degree respectively. In addition, 11 (8.4%) had professional

qualification. However, no respondents had DBS or WASSCE nor BECE certificate as their highest qualification. This outcome implies that majority of the respondents in the government departments and agencies in Kumasi have attained an appreciable level of higher education. That has enabled them acquired jobs in those departments and agencies.

#### **4.2.4 Staff Category of Respondents**

The category of staff that responded the questionnaire is presented in Table 4.4.

**Table 4.4: Staff Category of Respondents**

<b>Staff Category</b>	<b>Frequency</b>	<b>Percent</b>
Audit staff	40	30.8
Senior staff	65	50.0
Management	25	19.2
<b>Total</b>	<b>130</b>	<b>100.0</b>

**Source: Field study, 2018**

From Table 4.4, 40 respondents representing 30.8% were audit staff, 65 respondents representing 50% were senior staff while 25 respondents representing 19.2% were management.

#### **4.2.5 Working Experience of Respondents in the Department**

The number of years that the respondents have worked in government departments and agencies in Kumasi is presented in Table 4.5.

**Table 4.5: Working Experience of Respondents in the Department**

<b>Working Experience</b>	<b>Frequency</b>	<b>Percent</b>
Less than 1 year	9	6.9
1-5 years	28	21.5
6-10 years	24	18.5
11-15 years	36	27.7
16-20 years	22	16.9
More than 20 years	11	8.5
<b>Total</b>	<b>130</b>	<b>100.0</b>

**Source: Field study, 2018**

The results indicated that staff who had served between 11-15 years formed the greater number of the respondents scoring 36 (27.7%), followed by staff who had served 1-5 years and staff who served between 6-10 years of 28 respondents representing 21.5% and 24 respondents representing 18.5% respectively. Also, those who had worked in the departments for 16-20 years were 22 respondents representing 16.9% and 11 respondents representing 8.5% had worked more than 20 years. The least of score 9 (6.9%) have been with the departments for a period less than a year. This agrees with the trend in environments where review of major risks rate is high; people are expected to stay longer in one job as compared with other working environments where the review of major risks rate is relatively lower and the turnover rate is higher due to the ease with which people can find review of major risks. So the number of employees who have served 6 years and above is significant 93 (71.5%) to support this assertion.

### 4.3 Risk-Based Audit Approaches Used in Government Departments and Agencies

The first objective of the research was to find out Risk-Based Audit Approaches used in implementing internal control activities in government departments and agencies in Kumasi. The result is presented in Table 4.6.

**Table 4.6: Level of use of RBAA in Government Departments**

<b>Level of Use</b>	<b>Frequency</b>	<b>Percent</b>
0-20%	12	9.2
21- 40%	19	14.6
41-60%	42	32.4
61- 80%	51	39.2
81-100%	6	4.6
<b>Total</b>	<b>130</b>	<b>100.0</b>

**Source: Field study, 2018**

From the analysis, majority of the respondents reported to use RBAA strategy on the control system in their department. From Table 4.6, 12 respondents representing 9.2% indicated the level of use as 0-20% while 19 respondents representing 14.6% and 42 respondents representing 32.4% reported that the level of use of RBAA is between 21-40% and 41-60% respectively. Also, majority of 51 respondents representing 39.2% reported the level of use as 61-80%. However, the least representation was 6 respondents representing 4.6% who reported their level of use as 81-100%. This is an indication of the popularity or the knowledge of RBAA by the respondents. Also, the benefits of RBAA seem to be significant hence its adoption. According to Fraser and Henry (2015) as organization grow in size and complexity, effective risk management

becomes increasingly problematic. However, Carcello et al (2015) asserts that increased organizational complexity would result in greater risk and companies facing higher risk will increase their organizational monitoring.

#### **4.3.1 Usage of Risk Register**

Risk registers are very important tools in RBAA system. According to Griffiths (2016), the effectiveness of RBAA derives from a reliable risk register and a complete register should be available for audit planning. This section of the research tries to find out whether government departments and agencies in Kumasi keep risk register as part of their internal control mechanisms.

**Table 4.7: Usage of Risk Register**

<b>Usage of Risk</b>	<b>Frequency</b>	<b>Percent</b>
Yes	130	130.0
No	0	0.0
<b>Total</b>	<b>130</b>	<b>100.0</b>

**Source: Field study, 2018**

From the analysis all the participants, 130 (100%) reported to have reliable risk register in their departments as in Table 4.7. The implication is that the respondents not only understand RBAA, they are competent and committed to the implementation of RBAA.

#### **4.3.2 Definition of RBAA Activity in the Audit Charter**

The purpose, authority and responsibility of internal audit activity should be formally defined in a charter as regulated by the standards for the professional practice of

internal auditing (IIA, 2014). Therefore, the researcher was interested in finding out the definition of RBAA in the Audit Charter, and the results are shown in Table 4.8.

**Table 4.8: Definition of RBAA Activity in the Audit Charter**

<b>Definition of RBAA</b>	<b>Frequency</b>	<b>Percent</b>
Very clear	14	10.8
Clear	25	19.2
Undecided	29	22.3
Not defined	62	47.7
<b>Total</b>	<b>130</b>	<b>100.0</b>

**Source: Field study, 2018**

As little as 14 respondents representing 10.8% reported that the definition of RBAA activity in the Audit charter is very clear as indicated in Table 4.8. Only 25 respondents representing 19.2% reported RBAA activity definition being clear. 62 respondents representing 47.7% reported that RBAA activity was not defined in the audit charter in their departments. This gives an indication of varied understanding of RBAA. Some of the respondents agree on the definition of RBAA in the Audit charter, others have a different opinion, based on their understanding, 22.3% of respondents hold the opinion that the definition of RBAA in the Audit charter as being inadequate, maybe some of the respondents may have not seen the Audit charter hence the reason for the indecision.



### 4.3.3 Proportion of Risk-Based Audit Approach is involved in Your Annual Audit Plan

The researcher sought to establish the level of engagement in annual audit plan based on annual risk assessment and departmental unit risk character. The results are presented in Table 4.9.

**Table 4.9: Proportion of Risk-Based Audit is involved in your Annual Audit Plan**

<b>Proportion of RBAA</b>	<b>Frequency</b>	<b>Percent</b>
0-20%	6	4.6
21- 40%	27	20.8
41-60%	49	37.7
61- 80%	38	29.2
81-100%	10	7.7
<b>Total</b>	<b>130</b>	<b>100.0</b>

**Source: Field study, 2018**

A good number of 49 (37.7%) reported that the proportion of Risk-Based Audit Approach is involved in their annual audit plan was 41- 60% while 38 (29.2%) reported that 61-80% to be in their annual audit plan as in Table 4.9. also, 10 respondents representing 7.7% indicated the level of use as 81-100% while 27 respondents representing 20.8% reported that the level of use of RBAA is between 21-40%. However, the least representation was 6 respondents representing 4.6% who reported that the level of use of Risk-Based Audit Approach involved in their annual audit plan was 0-20%.

### 4.3.4 Frequency of Reporting Significant Audit Risk to the Audit Committee

Griffiths (2016) stated that RBAA is all about providing an opinion on whether risks are being properly managed. Reporting to a committee regarding department

significant risk exposures and controls is very important in implementing RBAA. It was therefore important to establish the frequency in which the committees are briefed on significant audit risk assessment. The findings are presented in Table 4.10.

**Table 4.10: Frequency of Reporting Significant Audit Risk to the Audit Committee**

<b>Responses</b>	<b>Frequency</b>	<b>Percent</b>
Very often	24	18.5
Often	56	43.1
Sometimes	36	27.7
Not at all	14	10.7
<b>Total</b>	<b>130</b>	<b>100.0</b>

**Source: Field study, 2018**

From the analysis, 24 respondents representing 18.5% said the report to the committee very often regarding department's significant risk exposures and controls as in Table 4.10. Majority of 56 respondents representing 43.1% often report to the audit committee. Also, 36 respondents representing 27.7% sometimes report frequently to the committee. However, only 14 respondents representing 10.7% indicated that they never at all reported frequently to a committee. The findings show how important RBAA is to the government departments and agencies in Kumasi.

#### **4.4 Regression Analysis**

Multiple regression test was undertaken to discover the influence of Risk Based Audit Approach on internal control system. Regression distinguishes between the relative obligations of every factor and decides the best indicators among the group of factors (Glass & Hopkins, 2014).

**Table 4.11: Regression Analysis**

Risk Based Audit Approach	Unstandardized Coefficients		Beta	T	Sig.
	B	Std. Error			
<b>Independent</b> (Constant)	1.190	.078		15.308	.000
<b>Variables</b> Safeguarded of Assets	.890	.005	.722	16.129	.000
Financial regulation adherence	.902	.003	.164	3.166	.000
Review of major risks	.813	.005	.686	13.538	.001
Good financial reporting	.757	.005	.806	9.538	.000

**Source: Field study, 2018****Note: \*\*\*Significant value is at 0.00****Dependent variable: Internal control systems**

The statistical relationship between the independent variables (i.e. Proper safeguard of Assets, Financial regulation adherence, Review of major risks, Good financial reporting) and the dependent variable (Internal control systems) are presented in the Table 4.11 above showing the coefficients of variation and the significant values for the variables tested.

The Coefficients of variation for easy access to loans was found to be 0.89 which illustrates that the components clarify 89% impact of the proper safeguarded of assets on the internal control systems. This data suggests that one unit increase in proper safeguarded of assets can bring about 89% increase in the internal control systems as confirmed in the study of Kitonga (2016) who found proper safeguarded of assets effect on internal controls at a level of 72.9%. The Coefficient of variation for financial regulation adherence was also found to be 0.902 which shows a 90.2% effect on internal control systems. This data suggests the relationship between financial regulations adherence and internal control systems is positive and hence, with a one percent increase in financial regulation adherence, there is going to be a

corresponding 90.2% increase in the internal control systems. This confirms what Kitonga (2016) found in Kenya where his results showed that if Financial regulations adherence increased by one unit, there is going to be a 56% increase in internal control systems.

Moreover, the coefficient of variation for Review of major risks was also found to be 0.813 which shows 81.3% effect on internal control systems government departments and agencies. This data suggests the relationship between review of major risks and members' development is positive and hence, with a one percent increase in review of major risks at the departments and agencies, there is going to be a corresponding 81.3% increase in the internal control systems. This again agrees with the findings of Addo (2014) who found that review of major risks affects internal control systems at a variance of 95.3% but this finding disagrees with that of Kitonga (2016) who said that review of major risks is negatively related to internal control systems of government departments in Kenya.

Also, the coefficient of variation for good financial reporting was found to be 0.757 which shows a 75.7% effect on internal control systems of the departments and agencies. This data suggests that the relationship between good financial reporting and internal control system is positive and hence, with a one percent improvement in good financial reporting, there is going to be a corresponding 75.7% increase in the internal control systems.

The analysis above shows that all of the four independent factors tested were positively related to the dependent variable which shows that when the independent variables increase by one unit there is a corresponding increase as well in the internal control systems. The level of significance of these factors impact on the ICS is discussed below.

Significance level of the effect of the independent variables on members' development are presented in the Table 4.11 above. The variables are said to be significant when the (sig. value) is at the lowest of 0.00 and therefore, the higher the significant value the less significant that variable is. From the data presented in the Table 4.9 above, the significant value for proper safeguarded of assets, financial regulation adherence and good financial reporting were 0.00 and this indicates that these three variables have a strong linear relationship with internal control system. On review of major risks, the significant value was found to be 0.01 which indicates that this variable has a weak linear relationship with ICS and for that matter cannot significantly affect it. Kitonga's 2016 study also confirms this finding where he had significant values of 0.00 for good financial reporting and proper safeguarded of assets.

#### **4.5 Challenges Encountered In Implementing the RBAA**

The third objective was to find out the challenges encountered in implementing RBAA in government departments and agencies in Kumasi. The result is presented in Table 4.12.

**Table 4.12: Challenges Encountered In Implementing the RBAA**

<b>Challenges</b>	<b>Frequency</b>	<b>Percent</b>
Inadequate relevant knowledge	26	20.0
Inadequate experience	37	28.5
Inadequate proper tools to identify risks	45	34.6
Inadequate relevant principle or guidelines	22	16.9
<b>Total</b>	<b>130</b>	<b>100</b>

**Source: Field study, 2018**

As indicated in Table 4.12, 20% of the respondents reported inadequate relevant knowledge, inadequate experience represents 28.5%, inadequate proper tools to identify risks amounted to 34.6% and inadequate relevant principle or guidelines (16.9%) as the main challenges encountered in implementing RBAA in government departments and agencies in Kumasi.

It is clear that the significant challenges affecting the implementation of RBAA are inadequacy of proper tools to identify risks in the departments, inadequate experience and lack of relevant knowledge of RBAA pose a great threat to its implementation in the Government Departments and Agencies in Kumasi.

## **CHAPTER FIVE**

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

#### **5.1 Introduction**

This chapter contains the summary of the whole study, conclusion of the study and the necessary recommendations for further research.

#### **5.2 Summary of Key Findings**

The main objective of the study was to assess the effect of Risk-Based Audit Approach (RBAA) on the implementation of internal control systems among government departments and agencies in Kumasi. In line with the objective, a study was conducted to find out whether Risk-Based Audit Approach are used in implementing internal control activities on government departments and agencies in Kumasi, determine whether Risk-Based Audit Approach has influenced internal control activities in government departments and agencies in Kumasi, and to explore the challenges encountered by Risk-Based Audit Approach in implementing internal control activities on government departments and agencies in Kumasi. A questionnaire was generated to collect data from 130 staff in government departments and agencies in Kumasi. Data was then analyzed and interpreted. The summary presented here is based on the findings and it is done as per the objectives of the study.

##### **5.2.1 Findings on risk-based audit approach used in government departments**

The first objective of the study was to find out whether Risk-Based Audit Approaches are used in implementing internal control activities in government departments and

agencies. The findings showed that, majority of the respondents reported to use RBAA strategy on the control system in their department. It was found out that a reliable risk register was kept in the various departments. It was further revealed that most of the respondents often report significant risk issues to the audit committee. This shows how important RBAA is to government departments and agencies in Kumasi.

### **5.2.2 Findings on influence of RBAA on the implementation of internal control system in government departments**

The second objective of the study was to find out the influence of RBAA on internal controls in government departments. It was revealed in the descriptive statistics that all of the four independent factors tested (Proper safeguarded of Assets, Financial regulations, Review of major risks, Good financial reporting) were positively related to the dependent variable (internal control systems) which shows that when the independent variables increase by one unit there is a corresponding increase as well in the internal control systems.

### **5.2.3 Findings on challenges encountered in implementing the RBAA**

The last objective of the study was to find out the challenges encountered in implementing RBAA on internal control activities. It was revealed that the significant challenges affecting the implementation of RBAA as a proper tool to identify risks in government departments and agencies; inadequate experience and lack of relevant knowledge of RBAA pose a great threat to the implementation of the RBAA in the government departments and agencies in Kumasi.



### **5.3 Conclusion**

Based on the findings, it is concluded that Government departments and agencies in the Kumasi used RBAA in the implementation of internal control system in their departments where they report significant risk to the audit committee regarding departments significant risk exposures and controls. The study indicated that RBAA negatively influence implementation of internal control system. It can be concluded that, challenges encountered in implementation of RBAA in implementation of internal control systems are: lack of relevant knowledge, inadequate experience, and inadequate proper tools to identify risks and inadequate relevant principle or guidelines as the main challenges encountered in implementing RBAA.

It can also be concluded that internal control is a process that guides an organization towards achieving its objectives. These objectives include operational efficiency and effectiveness, reliability of financial reporting, and compliance with relevant laws and regulations. The RBAA which focuses on both recorded and unrecorded risk, improves financial statement assurance and the financial statement reporting process. The RBAA focuses on business risk and the processes for controlling these risks. The higher the risk area, the more audit time and client controls are required. Besides focusing on the level of risk, the risk-based method helps to evaluate and build value into the financial reporting process and the clients company. In order to do this, the auditor must have an up to date insight of the clients business and activities.

#### **5.4 Recommendations**

Following the findings of this study, the under listed recommendations have been proposed for practice;

- Relevant training should be given staff on Risk Based Audit Approach to equip their knowledge level.
- Also, adequate tools used in identifying risks should be provided to government departments and agencies to identify risks.
- Audit committees should be established at every government departments with the mandate of monitoring and evaluating RBAA use and organization of workshops on RBAA activities in public departments and agencies to enhance awareness.

#### **5.5 Suggestion for Further Study**

This study assessed the effect of Risk-Based Audit Approach on the implementation of internal control systems among government departments and agencies at the Kumasi Metropolis, future studies can concentrate on implementation of internal controls in the various ministries in Ghana. Also, this study was conducted using the survey method which consists the use of only questionnaire to collect the opinions of the respondents. However, another research could be conducted by analyzing both questionnaire and face-to-face interviews to gather more detailed data from the respondents.

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## **APPENDIX A**

### **CHRISTIAN SERVICE UNIVERSITY COLLEGE**

#### **QUESTIONNAIRE FOR RESPONDENTS**

**Research topic: The Effect of Risk-Based Audit Approach (RBAA) on the  
Implementation of Internal Control Systems: A Case of Government  
Departments, Kumasi.**

Dear Respondent, this questionnaire is designed to seek information from management and staff of government departments in Kumasi. The information provided will strictly be considered as confidential and used solely for academic purposes.

*Kindly tick [✓] the responses that apply to you.*

#### **SECTION A: DEMOGRAPHIC DATA**

1. Your level of qualification? A. BECE [  ] B. WASSCE [  ] C. HND [  ]  
D. 1<sup>st</sup> Degree [  ] E. 2<sup>nd</sup> Degree [  ] F. Professional [  ]
2. Which staff category do you belong? A. Audit staff [  ] B. Senior staff [  ] C. Management [  ]
3. What is your working experience in the department? A. less than 1 year [  ]  
B. 1-5 years [  ] C. 6-10 years [  ] D. 11-15 years [  ] E. 16-20 years [  ]  
F. more than 20 years [  ]

**SECTION B - RISK-BASED AUDIT APPROACH APPROACH (RBAA) STRATEGIES USED IN GOVERNMENT DEPARTMENT**

4. What is the level of use of RBAA in government departments? A. 0-20% [  ]  
B. 21- 40% [  ] C. 41-60% [  ] D. 61- 80% [  ] E. 81-100% [  ]
5. Do you use risk register? A. Yes [  ] B. No [  ]
6. If yes, how complete or correct is the register? A. most complete and correct [  ]  
B. complete and correct [  ] C. Undecided [  ] D. not complete [  ]
7. How do you see the definition of RBAA activity in the Audit charter?  
A. Very clear [  ] B. clear [  ] C. Undecided [  ] D. Not defined [  ]
8. What proportion of Risk-Based Audit Approach is involved in your annual audit plan?  
A. 0-20% [  ] B. 21- 40% [  ] C. 41-60% [  ] D. 61- 80% [  ]  
E. 81-100% [  ]
9. How frequent do you report significant audit risk to the audit committee? A. Very often [  ] B. Often [  ] C. Sometimes [  ] D. Not at all [  ]

**SECTION C – INFLUENCE OF RBAA ON THE IMPLEMENTATION OF INTERNAL CONTROL SYSTEM IN GOVERNMENT DEPARTMENTS**

10. What is the influence of Risk Based Audit Approach on internal control system?  
Use the four-liket scale below;

*SA-Strongly Agree-4; A-Agree-3; D-Disagree-2; SD-Strongly Disagree-1*

<b>Statement</b>	<b>SA</b>	<b>A</b>	<b>D</b>	<b>SD</b>
Bank reconciliation statements are up to date				
Statement of assets and liabilities are reflective of the true position				
Department assets are properly safeguarded				
Greater adherence to the laid down government financial regulations				
Internal auditors review the major risks identified in the organization				

**SECTION D - CHALLENGES ENCOUNTERED IN IMPLEMENTING THE RBAA**

11. What main challenge do you encountered in implementing RBAA in your department?

- A. Lack of relevant knowledge [ ]
- B. lack of experience [ ]
- C. Lack of proper tools to identify risks [ ]
- D. lack of relevant principle or guidelines [ ]