

**COMPUTERISED ACCOUNTING SYSTEMS AND PERFORMANCE OF  
FINANCIAL REPORTING IN BANK OF KIGALI,  
KIGALI RWANDA**

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A Thesis

Presented to the college  
of higher degrees and Research  
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Kampala, Uganda

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In Partial Fulfillment of the Requirements for the Degree  
Master of Business Administration

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## DECLARATION A

"This thesis is my original work and has not been presented for a Degree or any other academic award in any University or Institution of Learning".

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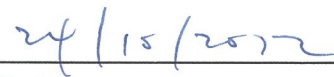
## DECLARATION B

"I/We confirm that the work reported in this thesis was carried out by the candidate under my/our supervision".



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## APPROVAL SHEET

This thesis entitled " **Computerized Accounting System and Performance of Financial Reporting in Bank of Kigali, Kigali Rwanda**" prepared and submitted by **Hagumimana Frank** in partial fulfillment of the requirements for the degree of **Master of Business Administration (Finance and Accounting)** has been examined and approved by the panel on oral examination with a grade of PASSED

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## **ABSTRACT**

This study was based on computerized accounting systems and performance of financial reporting at Bank of Kigali. The objectives of the study were; (i)to determine the profiles of respondent in terms age, gender, rank ,income level and educational level, ,(ii)to determine the level of computerized accounting systems in terms of preparation of accounting document, recording, trial balance in bank of Kigali,(iii) to determine the level of performance of financial reporting in terms of relevance, comparability, timeliness, understandability in bank of Kigali, and(iv) to establish the relationship between computerized accounting system and performance of financial reporting in bank of Kigali. It employed descriptive correlation design; the population size comprised of 168 respondents out of which a sample size of 118 was got using sloven's formula. Simple random sampling technique was employed which ensured that respondents were classified according to different departments of tellers, support staff, team managers. A questionnaire was used as a major research instrument which helped to capture opinions perceptions of respondents from selected bank of Kigali. Data was organized, summarized, statistically treated and drafted in tables using the statistical package for social sciences (spss) and Pearson's linear correlation coefficient and regression analysis were used. The study revealed that computerized accounting systems affect organization's performance of financial reporting. With the above findings, it was concluded that there was a higher level of computerized accounting systems in terms of preparation, recording accounting documents in bank of Kigali. Therefore it was recommended that bank of Kigali should have a routine system maintenance programs put in place so that the system can get rid of shortfall such as viruses, fraud among others that may affect the system operations.



## **CHAPTER ONE**

### **THE PROBLEM AND ITS SCOPE**

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

In Europe , Accounting has long been an organizational function especially with the advent of non owner managers who need to update what is happening in the organization(coller,2008). Maintaining, preparation and presentation of accounts is crucial for business success as well as organization for effective decision making whether it is a nonprofit making organization or profit making because they have to report to the stakeholders of the organization through financial reports. However there was inefficient financial reporting due to loss of records, delay in preparation of records and its associated problems. This study focused on establishing the influence of computerized accounting systems on financial reporting(Breen et al2003).

In Rwanda, before the introduction of computerized system of accounting, the manual systems were inaccurate and inconsistent for many organization needs especially reporting of financial information. This is because the system was associated with errors since data was collected, analyzed, journalized and a trial balance and balance sheet prepared (Meigs, 1986). Though most organization have not been doing well in financial reporting and accounting records, reports from a comparative survey conducted by Indira (2008) Rwanda inclusive indicate that firms have greatly improved on the ways of reporting their financial information. Computerized accounting system is defined as the application of the computer based software used to input, process, store, and output accounting information. This application is in support of the ever advancing technology that enables firms to use computer programs to perform tasks that were previously done manually. A computerized accounting system therefore involves the computerization of accounting information systems which is established in order to facilitate decision making. These are associated with a numbers of benefits like speed of carrying out routine transactions, timeliness, quick analysis, accuracy and reporting(islam 2010).

However many organizations are not enjoying the benefit of computerization of accounting system as they have continued to be inaccurate due to increased number of interruptions due to system failure or breakdown and untimeliness with its reliability left in question(as per European Union Audit Report by National Audit Organization 6 may 2003) According to Pandey (1998), Financial reporting to the company's stakeholders for instance the government, public, donors is a statutory obligation for every organization. Salem (1981) defined financial reporting as the process of supplying financial information which is reliable, accurate and complete to the various stakeholders for making economic decisions. This is always inform of financial reporting's such as reporting of comprehensive income, reporting of financial position and cash flow reporting and other financial annually reports which provide an overview of the company's current financial strength.

### **Statement of the Problem**

Lack of management of state funds and public institution in general continue to cause huge losses to the government, this situation continue to increase as organizations try to adopt themselves to the use of these developments it may now be said that every large business organization and most medium sized business are making at least some use of computers, given these condition its essential that accountant have a general understanding of how computers function, how they are programmed and the manner in which they are used in automated processing of accounting related data by means of what is commonly referred to as EDP

Accounting information systems are considered the backbone of information systems in the banks, as they provide accounting information that summarizes the events and operations that occurred in the bank and provide rational and reasonable results necessary for effective decision making. There has been an increase in accounting problems associated with financial reporting hence killing most business that fall victims of this circumstance. Here, we pursue the aspects associated with manual accounting in comparison with computerized

accounting in order to find out which system will be in a better position to improve on the quality of financial reporting and accounting operations of a business(musa 2005). The selection of commercial banks sector as the population of this study is based on the importance of computer-based accounting information systems therein, the significance of these systems, their efficiency and their accuracy in attracting clients and promoting confidence in the bank, as well as the necessity of quick responsiveness of these banks for technological developments and environmental changes due to world competition.

### **Purpose of the Study**

The study was to explore the various dimensions of computerized accounting systems and performance of financial reporting, test hypothesis of no significant relationship between computerized accounting system and performance of financial reporting and to bridge the various gaps of previous studies. To validate theory.

### **Research Objectives**

#### ***General Objective***

**The general objective:** this study established the relationship between computerized accounting systems and performance of financial reporting of selected bank of Kigali.

#### **Specific objective**

- i) To determine the profile of the respondents in terms of age, gender, rank, income level and educational level.
- ii) To determine the level of computerized accounting systems in terms (preparation, recording, trial balance) in bank of Kigali, Rwanda
- iii) To determine level of performance of financial reporting in terms of (relevance, comparability, timeliness, understandability) in bank of Kigali, Rwanda

- iv) To establish the significant relationship between the computerized accounting systems and performance of financial reporting in bank of Kigali.

### **Research Questions**

- i) What is the profile of respondents in terms of age, gender, educational level, and income level ?
- ii) What is the level of computerized accounting systems in terms of (preparations, recording and trial balance) in the bank of Kigali, Rwanda?
- iii) What is level of performance of financial reporting in terms of (relevance, comparability, timeliness, understandability) in bank of Kigali, Rwanda?
- iv) Is there a significant relationship between the computerized accounting systems and performance of financial reporting in bank of Kigali.?

### **Null Hypotheses**

There is no significant relationship between the computerized accounting systems and performance of financial reporting in bank of Kigali, Rwanda.

### **Scope of the study**

#### ***Geographical scope***

The proposed study was carried out in selected bank of Kigali Rwanda in nyarugenge and in the selected branches bank of Kigali. This particular case study is chosen because it is convenience to the researcher in terms of its' type of business, the researchers' area of residence, and availability of data for the research work.

#### ***Content scope***

The research was centered upon computerized accounting while examining what accounting is, the difference between manual and computerized accounting, the efficiency and accuracy in attracting clients and promoting confidence in the

bank, as well as the necessity of quick responsiveness of the bank for technological developments and environmental changes due to world competition.

### ***Theoretical scope***

The study was based on Rogers' theory of innovation diffusion (Rogers, 1983). Diffusion of Innovations is a theory that seeks to explain how, why, and at what rate new ideas and technology spread through cultures (Rogers 1983 5th ed, p. 283).

### ***Time scope***

The study covered financial reports generated within the period of 2011 to 2012. This period being the most recent and given the limited research time frame, the researcher was not able to cover reports of more than two years.

### **Significance of the Study**

The following disciplines will benefit from the findings of the study.

The **accountants** of the bank of Kigali will recognize the roles they have to play in computerized accounting systems and performance financial reporting and how their institution can become effective on the basis of the computerized accounting systems and their performance of financial reporting.

To the **private institution** will aim at achieving the goal of organization development based on the use of computerized accounting towards a better level in terms of quantity and quality.

The **future researchers** will utilize the findings of this study to embark on a related study

### **Other companies:**

This information will also be of great importance to other business companies and bodies that have adopted and those that are yet to adopt the system of computerized accounting in knowing the pressure points to be emphasized and well managed in order to pursue the system successfully.

## **Operational Definitions of Key Terms**

**Computerized accounting:** is method of accounting using modern accounting technology. It will reduce the problems in manual accounting and help to save time cost, prepare accurate accounts and also help to easy communication of account

**Performance:** The accomplishment of a given task measured against preset known standards of accuracy, completeness, cost, and speed.

### ***Financial reporting***

Financial reporting refers to preparation of financial reporting by the business necessary in making decision by management . Good financial reporting is all about presenting useful information to users so that proper decision can be made and data presented. Financial reporting should provide information about entity's economic resources, claims against those resources, owner's equity and changes in the resources and claims .

**Reliability:** the ability of computerized accounting information systems to provide adequate objectivity, non-bias, and non-material errors, thus decision makers can rely upon their outputs. Reliability concept includes the ability of computer-based accounting information systems to ensure security necessary for systems resources and their components of databases and software.

### **Comparability**

A quality of accounting information that facilitates the comparison of financial reporting of one company to the financial reporting of another company.

**Relevance** is also a very important characteristic of quality. indicates that financial information is relevant if it is capable of making a difference in decisions made by helping users to form predictions about the outcomes of the past, present and future events either to confirm or correct prior expectations.

**Comparability** is another characteristic of quality information. Also stresses that users must be able to compare the financial statements of the

enterprise over time in order to identify trends in its financial position and performance.

**Timeliness** is also another important characteristic of quality financial information. This arises as a result of perish ability of accounting information. To benefit users, financial information must be presented at the right time otherwise it loses relevance.

**Understandability** as a quality of financial reporting that enables users to perceive the significance of financial information. He argues that users are assumed to have reasonable knowledge of business and willingness to study and understand the information. International accounting Standards Board adds that information should not be excluded on grounds that it may be difficult for certain users to understand.

## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

#### **Concepts, Opinions, Ideas from Authors/ Experts**

##### ***Computerized Accounting System***

Meigs et al (1998) defined a computerized accounting system as a system that uses computers to input, process, store and output accounting information in form of financial reports. He adds that accounting system records all transactions that routinely deal with events that affect the financial position and performance of an entity. Marvin (2009) described a computerized accounting system as a method or scheme by which financial information on business transactions are recorded, organized, summarized, analyzed, interpreted and communicated to stakeholders through the use of computers and computer based systems such as accounting packages. He emphasized that it's a mechanized process of facilitating financial information inflows as well as the automation of accounting tasks such as database recording and report generation. Marvin adds that keeping accurate accounting records is a vital part of any organization. Apart from helping it to keep its float financially and legal, it is a requirement of funding bodies or donors. However computerized accounting system involves the use of computers to handle large volume of data with speed, efficiency and accuracy aimed at overcoming fundamental challenges which do not change the principle. The principle of accounting remains the limitations of many accounting and hence producing quality and reliable work. McRae (1998) adds that computerized accounting systems are advantageous in consolidating information channels meaning that files that were previously been duplicated by several departments will now be consolidated into single file

##### ***Financial reporting***

Financial reporting are firm-issued accounting reports with past performance information that a firm issues periodically (usually quarterly and annually). Financial reporting are important tools through which investors,



of double entry can largely be automated when done through the use of computerized accounting system.

Although computerized accounting is highly beneficial to an entity, it is worth noting that it is dogged with a couple of pitfalls some of which are shown as below;

Meigs (1986) stresses that there is a risk of improper human intervention with the computer programs and computer files. Employees in the organization may temper with the computer programs and computer based records for the purpose of deliberately falsifying accounting information. This may result into distortion of information that would essential be for decision making.

According to Wahab (2003), another threat and limitation of computerized system is the computer virus. Where a computer virus is a computer code (program) specially designed to damage or cause irregular behavior in other programs on the computer. The adverse effect is that it may lead to breakdown of the hardware thus leading to loss of valuable information (for instance in financial institutions information such as customers accounts, previous financial report, information pertaining loans advanced among others) already saved on the computer.

### **Quality of Financial Reports**

Van (2005) defines financial reporting as the process of presenting financial information or data about a company's financial position, operating performance and its flow of funds for an accounting period.

According to Frank Wood (1999), financial reporting is all about presenting useful information to users so that proper decisions can be made. His implication about financial reporting is that financial information should aid in the evaluation of amounts, timing and uncertainties of cash flows. Also financial reporting should furnish information about the entity's economic resources, claims against those resources, owners' equity and changes in the resources and claims.

Indira (2008), emphasized that financial reports should provide information about financial performance during a period management discharge it's stewardship

responsibility to owners. It should likewise be useful to managers and directors themselves in making decisions on behalf of the owners.

He argues that accounting information is very necessary if decisions are to be made accurately and rationally by the various interested parties or users of financial information. These are broadly classified into external and internal users. Where internal users include management and employees while the external users include donors, shareholders, creditors, government, competitors and general public.

According to Carl's et al (1999) the quality of financial reports depends on the intended users of the information and should be evaluated with respect to the needs of the users.

Federation of Accounting Standards Board (FASB) defined quality as a hierarchy of accounting qualities with relevance and reliability considered as the primary characteristics while representing faithfulness, verifiability, neutrality, comparability, consistency and understandability considered as secondary characteristics. Reliability, information is said to be reliable if it is free from material errors and bias and represents faithfully that is purports to represent emphasized Frank wood (1999).

According to Turner (2000), neutrality is the demand that accounting information should not be selected to benefit one class and neglect to other. Reliable information is verifiable, neutral and has representative faithfulness.

**Relevance** is also a very important characteristic of quality. Frank wood indicates that financial information is relevant if it is capable of making a difference in decisions made by helping users to form predictions about the outcomes of the past, present and future events either to confirm or correct prior expectations.

**Comparability** is another characteristic of quality information. Frankwood (1999) also stresses that users must be able to compare the financial statements of the enterprise over time in order to identify trends in its financial position and performance.

According to Indira (2008), **timeliness** is also another important characteristic of quality financial information. This arises as a result of perishability of accounting information. To benefit users, financial information must be presented at the right time otherwise it loses relevance.

According to Pallai (2007) **Understandability** as a quality of financial reporting that enables users to perceive the significance of financial information. He argues that users are assumed to have reasonable knowledge of business and willingness to study and understand the information. International accounting Standards Board adds that information should not be excluded on grounds that it may be difficult for certain users to understand.

### **The Influence of Computerized Accounting System on Financial Reporting.**

The influence of computerized accounting systems on financial reporting has been linked to the benefits of applying computer systems while generating financial reports.

The presentation of scheduled reports can be triggered and simplified and prepared at regular interval with ease (McRae, 1998). With the application of computerization, generation of financial reports will be easy since information can be easily generated and updated on a timely basis.

With the substantial increase in the number of transactions and increase in the need for real time information, maintenance of accounting data on a real time basis has become essential. This is achievable using computerized systems hence promoting the quality of financial reporting. Carol (2002) says that computerizing business general ledger, payroll and other accounting tasks increases office efficiency.

Computerized accounting systems have also been credited for their quick processing speed and large storage capacity. Using computerized accounting systems ensure up to date account balances are available at any time to aid management in decision making

(Lancouch 2003). Computerization saves time on transaction hence leading to quality of financial reporting for instance timely, accurate and reliable information can be generated (Lewis 1999).

The influence of computerized accounting systems depends on the end users satisfaction. Mihir (2002) stressed that higher end users satisfaction leads to a positive attitude towards using the satisfaction and in turn increases the voluntary usage of the system. Nash (2003) noted that the quality of accounting information and performance of the accounting systems is a great concern to management. A computerized accounting system is a delivery system of accounting information for purposes such as providing reliable accounting information to users, protecting the organization from possible risks arising as a result of abuse of accounting data and system among others.

### ***Balance Sheet***

The balance sheet lists the firm's assets and liabilities, providing a snapshot of the firms' financial position at a given point in time. On the balance sheet, which is a major component of the financial reportings, reside various items classified as assets, liabilities and shareholder's equity. Together, they comprise the composition of the two characteristics of wealth – the use and source of capital – and are the first accounting dimension measure of assets value at current "price", and inventories. From a management accounting perspective, we expect that a certain rate of growth in income or assets be reflected in the magnitude and composition of assets and liabilities as a whole, and other performance measures (Walsh).

### ***Income Reporting***

The income reporting also called the profit and loss reporting lists the firms' revenues and expenses over a period of time. The last item of the income reporting shows the firms' net income, which is a measure of its profitability during the period. The net income is also referred to as the firms' earnings (Berk & DeMarzo, 2007, pg.27).

### ***Cash Flow Reporting***

The income reporting sets out the revenue and expenses, rather than the cash receipts and cash payments, for the period. This means that profit (or loss), which represents the difference between the revenue and expenses for the period, may have little or no relation to the cash generated for the period. The cash flow reporting is a summary of the cash receipts and payments over the period concerned. The reporting is basically an analysis of the business's cash (cash equivalents) movements for the period. The relationship between the three reportings is that the balance sheet reflects the combination of assets (including cash) and claims (including the shareholders equity) of the business at a particular point in time. The cash flow reporting and the income reporting explain the changes over a period of two of the items in the balance sheet. The cash flow reporting explains the changes to cash. The income reporting explains changes to equity, arising from trading. ( Atrill & McLaney, 2008, pg 155,157, 159).

Standard cash flow reportings have three parts. First, cash flows from operating activities are the net inflow or outflow from trading operations after tax and financing costs. It is equal to the sum of cash receipts from trade receivables, and cash receipts from cash sales where relevant, less the sums paid to buy inventories, to pay rent to pay wages etc.

### ***Financial Performance***

In a study conducted by Collis and Jarvis (2006) on financial information and the management of small private companies in the U.K., the most useful sources of information are the periodic management account (i.e. the balance sheet and income reporting), cash flow information and bank reportings (of course bank reporting are another form of cash flow information but generated externally). These sources of information are used by eight (80) per cent of companies and this demonstrates the importance of controlling cash, which previous research ( Bolton, 1971, Birly & Niktari, 1995, Jarvis et al, 1996) suggest is critical to the success and survival of a small business.

In the same research eight-seven (87) per cent of small companies' prepared profit and loss accounts and seventy-eight (78) per cent, balance sheet. These key financial reportings allow management to monitor profitability of the business as well as its net assets. Confirming the usefulness of cash flow information, the analysis shows that seventy-three (73) per cent use bank reconciliation reporting and more than fifty-five (55) percent use cash flow reportings and forecast. However, other competitive performance measures perceived in literature such as ratio analysis, industry trends and inter-firm comparison are not widely used. Collis and Jarvis (2002) then states that this may indicate that small companies experience problems in gaining access to appropriate benchmarks, but could also be the results of competitors filing abbreviated accounts which reduces the amount of information available for calculating ratio and making comparism. In addition, as many small companies operate in the service sector, they occupy niche markets and may be less concerned with competition than those in other markets.

Melse (2004), reports that ratio analysis provides an insight into the financial health of a firm by looking into it liquidity, solvability, profitability, activity and capital and market structure. Jooste (2004) investigates that many authors agree that cash flow information is a better indicator of financial performance than traditional earnings. Largay and Stickney (1980) and Lee (1982) show that profits were increasing, W.T. Grant and Laker Airways had severe cash flow problems prior to bankruptcy. Jooste (2004) further states that users of financial reportings around the world evaluate the financial reportings of companies to determine the liquidity, assets activity, leverage, profitability and performance. Users of financial reportings use traditional balance sheet and income reportings ratios for performance evaluation. Therefore, along with traditional ratios, operating cash flow is also important when evaluating a company's performance (Jooste, 2004). Various literature states that the primary purpose of the cash flow reporting is to assess a company's liquidity, solvency, viability and financial adaptability.

According to Everingham et al (2003) operating cash flow ratios are indicators of performance. They determine the extent to which a company has generated sufficient funds;

- To repay loans;
- To maintain operating capabilities;
- To pay dividend; and
- To make new investments without using external financing, (Jooste, 2004).

Cash flow ratios can be used to answer questions on a company's performance since debt obligations are met with cash. Such an analysis will result in adequate lines of credit, unrestricted cash availability, debt maturity schedules with respect to financing requirements and the willingness to issue common equity. It will allow an analyst to examine a company's financial health, and how the company is managing its operating, investment and financing cash flows (Palepu et al, 2000). A lack of cash flow data has caused problems for investors and analysts in assessing a company's performance, liquidity, financial flexibility and operating capability (Figlewicz and Zeller, 1991). Cash flow may be viewed as the lifeblood of a company and the essence of its very existence (Rujoub et al, 1995). The cash flow reportings offer measures to evaluate performance. If cash flow information is useful but unused, the logical conclusion is that analysts are not analysing available data properly (Carslaw and Mills, 1991).

## **Theoretical Perspectives**

### ***Diffusion of Innovation Theory***

This study is based on the Diffusion of Innovation Theory, which has been the stepping stone in most studies in adoption of innovation, will be used in this paper. Diffusion of innovation is a theory of how, why, and at what rate new ideas and technology spread through cultures. Everett Rogers introduced it in his 1962 book, *Diffusion of Innovations*, writing that "Diffusion is the process by which an innovation is communicated through certain channels over time among the members of a social system." Rogers, an authority on innovation theory, defined an innovation as an idea, practice, or object that is perceived as new by

an individual or other unit of adoption. Therefore, not only is an innovation a restoration by means of technology, but it can also refer to renewal in terms of concept and action. Innovation itself does not have to be new, based on the time of its discovery or invention. It only has to be perceived as new by the unit adopting it (Thong, 1999).

According to Rogers, diffusion research is centered on the conditions which increase or decrease the likelihood that a new idea, product, or practice will be adopted by members of a given culture. A key element in the diffusion of new technology is the people's attitude towards it. Within any population, innovations are not usually accepted simultaneously. Some individuals are predisposed to try out innovations first, while certain people are inclined to take greater risks, be more venturesome, and tolerate early disappointments. These differences are based on personality, temperament, experience, and perceived need. Innovation researchers label these individuals as innovators and research finds that they are typically about one and a half to three per cent of a population.

Gabriel Trade was one of the grandfathers of diffusion field in Europe. He observed that the rate of adoption of a new idea follows an S-shaped curve. He also thought that the S-curve is explained by networks, as innovations were, according to Trade adopted by the ones socially closest to the source of the idea. (Rogers, 1983, p. 40-41) The rate of adoption, which is illustrated by the S-curve, is —the relative speed with which an innovation is adopted by members of a social system. —The rate of adoption is usually measured by the length of time required for a certain percentage of the members of a system to adopt an innovation. By Rogers the adoption time varies because of the properties of the innovation and for example the differences in the social systems where the innovations are adopted. There are aspects of diffusion that cannot be explained by the nature of individual behaviour, but this can be explained through the direct influence of the system and an indirect influence of the individual members of the system, through the system. (Rogers, 1983, p. 23-24)



The shape of the S-curve can also vary depending on resistance to innovation as the early adopters can be weary and try to avoid the risk. Also a phenomenon called —the bandwagon effect|| take affect as the mere amount of adopters starts to increase the speed of the diffusion. This phenomena which has also been called the diffusion effect, is the pressure created by the adopters or rejecters of an innovation for others to follow their lead in treating this innovation. (Rogers, 1983, p. 234) There are also results which show the existence of bandwagon effects in accounting solutions. (see for example Swan et al., 1999, p. 918)

The adopters of an innovation can be divided into five groups: innovators, early adopters, early majority, late majority and laggards based on at which point of the S-curve or the more commonly used bell shaped curve, are they adopting the innovation. (Rogers, 1983, p. 242-250) The bell shaped curve, also known as the lifecycle model of diffusion of innovation can be described by normal distribution. There the share of innovators is 2,5%, early adopters about 13,5%, early majority 34%, late majority 34% and laggards 16%. (Rogers, 1995)

In the academic literature, the spreading of the diffusion can be divided into two types. Relocation where diffusion happens when an idea or for example a person enters a new place. In this case the innovation spreads, but the number of adopters does not necessarily increase. Expansion is the type of diffusion where more and more people or companies etc. adopt the innovation and thus the number of users always grows when the innovation diffuses (Bjørnenak, 1997, p. 5).

Expansion diffusion can be further divided to contagious and hierarchical diffusion. There contagious diffusion is closer to the thoughts of Gabriel Tarde stating that diffusion of innovation is highly dependent on the networks so that the subjects closest to the origin of the innovation are most likely to adapt it first. This is also the diffusion model used to explain or model the spread of diseases or rumours. (Bjørnenak, 1997, p. 5) Expansion diffusion can also be classified as hierarchical where the diffusion starts from larger units moving on to medium size and finally small units. The base of the hierarchy can vary so that it could be

based on the size of a company, or a city or also on the amount of income. (Bjørnenak, 1997, p. 6)

In addition to analyzing the diffusion in a company as one unit, analysing internal diffusion can also provide additional insight on the process. Internal diffusion refers to the time it takes for an innovation that has been adopted by the company to replace the previous solution as a practice throughout the company. (Mansfield, 1963) For example when a company starts to receive invoices electronically, it takes time for all the personnel of the company to see the invoices as a standard practice and ask for them from all its suppliers.

The first and most commonly met criticism for diffusion research is the pro-innovation bias. Rogers defines it as follows: —The implication of most diffusion research is that an innovation should be diffused and adopted by all members of a social system, that it should be diffused more rapidly and that the innovation should be neither re-invented nor rejected. (Rogers, 1983, p. 92) Kimberly (1981) clears the idea by defining them as presumptions that innovations will benefit organizations. Rogers' reasons for pro innovation bias are that most of the research has been funded by change agencies whose business is to promote ideas. Successful innovations also leave a diffusion trail that is easy to research where as innovations that get rejected cannot be easily studied. (Rogers, 1983, p. 93)

To overcome the pro-innovation bias Rogers suggest studies that concern innovations that are not yet completely diffused because this way the studies would not concentrate so much into the most successful innovations. (Rogers, 1983, p. 95) The early research on innovation did not recognize re-innovation or the fact that innovations are not the same for all adopters as they are often modified to suit the needs of the adopters in their particular situations. Nowadays innovations are not seen as perfect solutions for the problems and needs of the adopters. (Rogers, 1983, p. 98)

Abrahamson widens the diffusion theory by Roberts as he brings into consideration the diffusion of inefficient innovations and the rejection of efficient innovations. His approach helps overcome the proinnovation bias associated with

earlier research because it challenges the view that rational decision makers make independent decisions to adopt efficient innovations. This is accomplished by creating counter assumptions to the basic ideas underlying the efficient choice perspective (March, 1978 quoted by Abrahamson). For example the assumption that organizations within a group make their choices freely and independently can be countered by asking whether someone outside this group like regulatory bodies or consultants have had an influence on the decisions made by the group. The other main idea behind efficient choice is that organizations know their goals and the effect of each innovation in reaching these goals. This can naturally be countered by uncertainty concerning the goals and the effect of the adoption of innovations. Through the counter assumptions the following matrix is formed. (Abrahamson, 1991, p. 590-591)

### **Related Studies**

#### **The Extent of Computerized accounting systems in Selected bank of Kigali**

The rapid change in information technology, the wide spread of user-friendly systems and the desire of organizations to acquire and implement up-to-date computerized systems and software have made computers much easier to use and enabled accounting tasks to be accomplished with increased speed and accuracy (Al-Fehaid, 2003). There are two types of Computer-based accounting systems. These consist of: Integrated Accounting Systems and Stand Alone Accounting Systems (Dodd, 1992; Lanier, 1992; Fardon, 2002).

McBride (2000), computerized packages can quickly generate all types of reports needed by management for instance budget analysis and variance analysis. Data processing and analysis are faster and more accurate which meets the managers need for accurate and timely information for decision making. Frank wood (1999) consented to the speed with which accounting is done and further added that a computerized accounting system can retrieve balance sheets, income statement or other accounting reports at any moment. He consented that computerized accounting system allow managers to easily identify and solve problems instantly. Indira (2008) pronounced the improvement in business performance as a result computerization of the accounting systems as it is a highly integrated application that transforms the business processes with the performance enhancing features which encompass accounting, inventory control, reporting and statutory processes. He then says, this helps the company access information faster and takes quicker decisions as it also enhances communication. McBride (2000) stated that managers cannot easily satisfy statutory and donor reporting requirements such as profit and loss account, balance sheet and customized reporting without using computerized accounting systems. With the system in place, this can be done quickly and with less effort. Computerized accounting systems ease auditing and have better access to required information such as cheque numbers, payments, and other transactions which help to reduce the time needed to provide this type of information and documentation during auditing. According to Carol (2002), it is easy to do accounting functions using computerized accounting systems. Posting transactions to the ledger, the principle of double entry can largely be automated when done through the use of computerized accounting system. Although computerized accounting is highly beneficial to an entity, it is worth noting that it is dogged with a couple of pitfalls some of which are shown as below; 7

Meigs (1986) stresses that there is a risk of improper human intervention with the computer programs and computer files. Employees in the organization may temper with the computer programs and computer based records for the purpose of deliberately falsifying accounting information. This may result into distortion of

information that would essential be for decision making. According to Wahab (2003), another threat and limitation of computerized system is the computer virus. Where a computer virus is a computer code (program) specially designed to damage or cause irregular behavior in other programs on the computer. The adverse effect is that it may lead to breakdown of the hardware thus leading to loss of valuable information (for instance in financial institutions information such as customers accounts, previous financial report, information pertaining loans advanced among others) already saved on the computer.

As the lifeblood of any competitive business, accounting information is a critical resource for all enterprises. The concept of accounting information system (AIS) is quite well established and numerous commercial packages as well as tailor-made systems have been developed. However, the business world is best by accounting systems that have varying levels of efficiency and excessive costs for such information (Yau et al., 2000). Advancements in information technology (IT) have enabled companies to use computers to carry out their activities that were previously performed manually. Accounting systems that were previously performed manually can now be performed with the help of computers. Therefore, improvements in the information technology have facilitated the use of cost and management accounting procedures.

Today, almost all organizations are using computers in their daily businesses. As computers become smaller, faster, easier to use, and less expensive, the computerization of accounting work will continue. Accounting activities that were previously performed manually can now be performed with the use of computers. That is, accountants are now able to perform their activities more effectively and efficiently than before (Dalchi and Tennis, 2004).

In computerized system computers are used in processing data and in disseminating accounting information to interested users. Now-a-days most of the small business organizations eventually replace their manual accounting system with computerized accounting system. Computerized accounting systems are software programs that gather the various accounting information related to

sales, purchases, receivables, payables, cash receipts, cash disbursements, and payroll. And in this procedure the financial reporting is generated (Islam, 2010).

Most of the accounting information is generated from transactions. Transactions of firms have both accounting and non accounting attributes. During the early days of computerization of AISs, accounting system used to be isolated from other information systems and served as operational; support systems. Today, as more powerful, flexible, economical, and user-friendly software and hardware have become available, the trend is toward a logical arrangement where a single system can support both accounting and operational needs. In sum, today's accounting systems are closely tied into and may even be fully integrated with other information systems (Wilkinson et al, 2000).

### ***Relationship between Computerized Accounting systems and Financial Reporting***

Computerized accounting on financial reporting is linked to benefits applying computer system while generating financial reports.

Computerized accounting systems have been credited for their quick processing speed and large storage capacity. Using computerized accounting system ensures up-to-date account balances are available any time for management to make quick decisions (Lancouch, 2003). Quality of financial reports is assured with computerized accounting system as compared to manual systems. The method of inputting and processing data is sophisticated thus accuracy of data is improved. This means that financial reports will bear minimum errors. Computerized systems will foster accessibility and faster transformation of information stored in computers, hence financial reports can easily be accessed through online system without delay and timely decision making (Kwarijuka, 1998).

The use of computer based systems in manufacturing firms will enable employees from various function areas and branches to generate timely financial reports which enable managers to monitor business operations and important finance decisions (Wailes, 1999). A computerized accounting system is a delivery

system of accounting information as providing reliable accounting information to users. So records of expenditure and incomes and assets, liabilities, revenue expenses must be documented and transferred to general ledger of firm's financial details to be analyzed for future financial decisions.

### **The Appropriate Strategies of Improving Financial Reporting.**

Frank wood (1999), pointed that firms should ensure that they promote the use of up to date and complete IFRS in the preparation and presentation of its financial statements and ensure compliance to the set standards and governing regulations. Indira (2008) remarked that, firms should also ensure public availability of full sets of financial statements including notes for public interest entities rather than producing a summary of the financial reports to the stakeholders.

Michael (2005) added that, firms should ensure that they recruit skilled professionals to handle its accounting and offer routine training to the employees in the field of accounting basing on the changing environment.

## CHAPTER THREE

### METHODOLOGY

#### Research Design

The descriptive research design method was used in this study. The questionnaire was used in collecting data from the respondents. The study used descriptive correlation which investigates the relationship between variables, in that data collected was used to describe the relationship between the computerized accounting systems and performance of financial reporting in bank of Kigali.

#### Research Population

The target population of the study included officials in all the selected Bank of Kigali in Kigali. The staff included the accounting staff/tellers, support staff and management of the case study who actually record and even use the same information generated as a result of computerized accounting:

**Table 1:**  
**The target population**

Category of respondents in Bank of Kigali	Target population	Sample size
Tellers	56	39
Support staff	62	44
Team managers	50	35
Total	168	118

#### **Sample Size**

The sample size was determined using solven's formula:

$$n = N / 1 + N (0.05)^2$$

Where n = sample size

N = Size of population

0.05=level of significance

$$n = 168 / 1 + 168(0.05)^2 = 118$$



## **Sampling Procedures**

The selection of the respondents sample size was based on the simple random sampling which is a type of sampling technique that allows researchers to collect data in which each element in the population has a known and equal probability of selection. This technique was convenient to achieve the research objectives because the respondents had the same chance to be in sample.

## **Research Instrument**

There were three sets of questionnaires directed towards employees in selected bank of Kigali in Rwanda; one was on respondents bio-data; another was on level of computerized accounting systems and another on performance of financial reporting the questionnaire consisted of the main title and introductory letter, with a section of 5 bio-data questions assisted in classifying respondents.

The questionnaire on computerized accounting systems independent variable (IV) consisted of 15 question divided in three sub – sections distributed as follows; 10 preparations of accounting document, item 1-10; 3 questions on recording of transactions, 11-13 and 2 questions on preparations of trial balance and financial statement 14-15. All questions in this section were close ended, based on four likert scale, ranging from one to four where 1= strongly disagree, 2 Disagree, 3=Agree 4=strongly agree.

## **Validity and Reliability of Instruments**

Quality control is very important in assuming data quality, for the survey, quality control was assured through several stages as authorized below.

1. reliability of the instruments where tested using SPSS reliability analysis, revealing a cronbach alpha (a) of 0.92 for the instruments on computerized accounting systems and performance of financial reporting, for the two variables it was a=0.93. This complies with the minimum reliability co-efficient of 0.75 and therefore is considered “acceptable” as is the case in most social science research.
2. content validity was ensured by consulting experts in the accounting field (such as the research supervisor of CHDR)

$$CVI = \frac{\text{Number of relevant items}}{\text{Total number of items}}$$

$$CVI = \frac{35}{38} = 0.92$$

The CVI was 0.93, was greater than 0.75, hence the instrument was considered valid.

## Reliability analysis (using cronbach's alpha).

### Computerized accounting systems.

Case processing summary

		N	%
Case	valid	115	97
	Excluded <sup>a</sup>	3	3
	Total	118	100

Reliability statistics

Cronbach's alpha	No of items
817	15

a list wise deletion based on all variables in the procedure

### Performance of financial reporting.

Case processing summary

		N	%
Cases	Valid	115	97
	Excluded <sup>a</sup>	3	3
	Total	118	100

Reliability statistics

Cronbach's alpha	N of items
817	15

a list wise deletion based on all variables in the procedure

### Both computerized accounting systems and performance of financial reporting.

Case processing summary

		N	%
Cases	Valid	115	97
	Excluded <sup>a</sup>	3	3
	Total	118	100

Reliability statistics

Cronbach's alpha	N of items
.863	38

a list wise deletion based on all variables in the procedure

## Data Gathering Procedures

The researcher collected both primary and secondary data relevant to the study using questionnaires. The data collection process was organized and conducted in three stages:

### Before the administration of the questionnaires

An introduction letter was obtained from the College of Higher Degrees and Research for the researcher to solicit approval to conduct the study from respective members of each company. When approved, the researcher secured a list of qualified respondents and the respondents were explained about the study and enough questionnaires were reproduced for distribution.

### **During the administration of the questionnaires**

- i) The respondents were requested to answer completely and not to leave any part of the questionnaires unanswered.
- ii) The researcher emphasized retrieval of the questionnaires within five days from the date of distribution.
- iii) On retrieval, all returned questionnaires were checked if all are answered.

### **After the administration of the questionnaires**

The data gathered was collected, encoded into the computer and statistically treated using the Statistical Package for Social Sciences (SPSS).

### **Data Analysis**

The descriptive statistics were used in this study based on frequency and percentage distributions to determine the profiles of the respondents. The means were used to analyze data on contribution of computerized accounting systems and performance of financial reporting in selected bank of Kigali . The Pearson's Correlation coefficient was used to establish whether there is a significant relationship between contribution of computerised accounting systems and performance of financial reporting. In order to interpret the data taken for the respondents, the following values and interpretation were used.

<b>Mean range</b>	<b>Interpretation</b>
3.26- 4.00	Very high
2.51-3.25	high
1.76-2.50	low
1.00-1.75	Very low

### **Ethical Considerations**

To ensure that ethics is practiced in this study as well as utmost confidentially for the respondents and the data provided by them, the following were done:

- (1) Coding of all questionnaires;

- (2) The respondents were requested to sign the informed consent;
- (3) Authors mentioned in this study were acknowledged within the text;
- (4) Findings were presented in a generalized manner.

### **Limitations of the Study**

The anticipated threats to validity in this study were as follows:

- i) Intervening or confounding variables which were beyond the researchers control such as honesty of the respondents and personal biases. To minimize such conditions, the researcher requested the respondents to be as honest as possible and to be impartial / unbiased when answering the questionnaires.
- ii) The research environments were classified as uncontrolled settings where extraneous variables may influence on the data gathered such as comments from other respondents, anxiety, stress, motivation, on the part of the respondents while on the process of answering the questionnaires. Although these were beyond the researcher's control, efforts were made to request the respondents to as objective as possible in answering the questionnaires.
- iii) Testing: The use of research assistants may render inconsistencies such as difference in conditions and time when the data was obtained from respondents. This was minimized by orienting and briefing the research assistants on the data gathering procedures.
- iv) Instrumentation: The research tools was non standardized hence a validity and reliability test were done to arrive at a reasonable measuring tool.
- v) Attrition: A representative sample may not be reached as computed due to circumstances within the respondents and beyond the minimum sample size will be done by the researcher to avoid this situation.

## CHAPTER FOUR

### PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

#### Profile of respondents

Respondents consisted age, gender, rank, designation, income level and education level. In each case, respondents were asked through a closed ended questionnaire, to provide their respective profile information, to enable the researcher classify and compare them accordingly. Their responses were analyzed using frequencies and percentage distributions as summarized in table 2 below;

**Table 2:**  
**The profile of respondents**

Category	Frequency	Percent
<b>Age</b>		
20-39years	72	61
40-59years	28	24
Above 60years	18	15
<b>Total</b>	<b>118</b>	<b>100</b>
<b>Gender</b>		
Male	70	59
Female	48	41
<b>Total</b>	<b>118</b>	<b>100</b>
<b>Employee designation(rank)</b>		
Top level manager	30	25
Middle level manager	38	32
Lower level manager	50	43
<b>Total</b>	<b>118</b>	<b>100</b>
<b>Level of income(income level)</b>		
Low	50	42
Medium	40	34
High	28	24
<b>Total</b>	<b>118</b>	<b>100</b>
<b>Highest educational qualification</b>		
Diploma	50	42
Degree	38	32
Masters	30	25
<b>Total</b>	<b>118</b>	<b>100</b>

**Source:** Primary Data 2012

The table 2 shows that majority of the respondents were below 39years(61%), while very few are above 40years (only24%), which is in line with the age distribution in bank of Kigali where the biggest portion of employees lies below 35 years and( 15%) are above 60 years.

Regarding gender most respondents in the study sample were male (59%),indicating that the area of the study is dominated by male as compared to female(48%). Regarding designation ,most respondents in this study were employees of lower management 50 respondents(42%) while 38 respondents (32%) were middle level managers and only 30 respondents (25%) were top managers. Such a distribution of employees at any organization is expected as it is normal that most employees at any company are in lower management and few are in top level management. Regarding level of income, results indicate that majority of employees are low income earners(42%),medium level income earners (34%) and high level income earners(24%).this however is surprising to find that most employees in banks, Rwanda are low income earners. It is though assumed that the sampling procedure could have been not suitable for such people or that they could have been biased on income entitlement.

Regarding education level ,results indicate that respondents in selected bank of Kigali in Rwanda are relatively educated. At least no respondent was below diploma level as they were (42%), degree level (32%) and master's level (25%).

Finally regarding respondents distribution by bank of Kigali, respondents were relatively equally distributed among of the branches of bank of Kigali, Rwanda.

### **Description of the level of computerized accounting systems**

The independent variable in this study was computerized accounting system. The second objective of this study was to determine the level of computerized accounting systems in bank of kigali,whichwas broken into three types namely preparations of accounting documents, recording of transactions,

trial balance and financial statement measured 15 questions for which respondents were required to indicate the extent to which they agree with each of the items by ticking the number that best describes their perceptions. The responses were analyzed using means as summarized, interpretations and rank as indicated below:

**Table 3:**  
**The level of computerised accounting systems**  
**n=118**

<b>Items on computerized accounting systems</b>	<b>Mean</b>	<b>Interpretation</b>	<b>Rank</b>
<b>Preparations of accounting documents</b>			
Computers help in preparing accounting documents like cash memo, bills in your bank	3.42	Very high	1
Computer prepare and provides faster, accurate entry of transactions and documentation	3.24	High	2
Computer prepare and gather the information systems in the data base	3.22	High	3
The staffs that are working in the current system have the ability to use computer.	3.16	High	4
There are enough financial allocations for the processing of building a modern network to receive the computerized accounting system.	3.12	High	5
The expected benefit obtained from applying a computerized accounting system is greater than the cost of obtaining it.	3.08	High	6
The managerial performance in the computerized accounting system assesses deviations of individuals better than manual system	2.98	High	7
The computerized accounting system is characterized by easiness of usage more than the manual system	2.91	High	8
The computerized accounting system is more flexible than manual system.	2.90	High	9
The computerized accounting system provides easy reference and access to the information.	2.89	High	10
<b>Sub total average mean</b>	<b>2.06</b>	<b>Low</b>	
<b>Recording of transaction</b>			
Everyday business transactions are recorded with the help of computer software	3.15	High	11
Every account and transactions is assigned a unique code where the grouping of account is done	3.03	High	12
After recording transaction, the data is transferred into ledger by computer	2.99	High	13
<b>Sub total average mean</b>	<b>3.06</b>	<b>High</b>	
<b>Trial balance and financial statement</b>			
Trial balance is prepared by the computer to check accurate of accords	3.37	Very high	14
With the help of trial balance, the computer can be programmed to prepare the state of comprehensive income and financial position	3.25	High	15
<b>Sub total average mean</b>	<b>3.31</b>	<b>Very high</b>	
<b>Total average mean</b>	<b>3.01</b>	<b>high</b>	

Source: primary data (2012)

Table 3 results indicate that the level of computerized accounting systems is relatively high in bank of Kigali, Rwanda. All the three types of computerized accounting software namely, preparations of accounting documents, recording of transactions, and preparations of trial balance and financial statement. Like preparation of accounting documents was rated as high (mean=3.17), recording of transactions was rated as high (mean = 3.06) and preparation of trial balance and financial statement was rated as very high (mean 3.31) to get a summary on how respondents rated the level of computerized accounting systems, a mean for all the types of was rated computed which were to be (3.18) or rounded 3, which falls under agree on the Likert scale and ranked as high.

### **The Level of performance of financial reporting**

The dependent variable in this study was the level of performance of financial reporting. The third objective of the study was therefore the level of performance of financial reporting in bank of Kigali was measured using 23 questions divided in four sub-sections including relevance and reliability, comparability, timeliness, and understandability for which respondents were required to indicate the extent to which they agree with each of the items by ticking The number that best describes their perceptions. Their responses were analyzed and described using SPSS' summary statistics showing mean, interpretations and rank as shown below:



**Table 4**  
**Level of performance of financial reporting**  
**(n=118)**

<b>Items on performance of financial reporting</b>	<b>Mean</b>	<b>Interpretation</b>	<b>Rank</b>
<b>Relevance and reliability</b>			
The information in the financial statement are relevant to the users in your bank. Once all items in financial statement help users	3.25	High	1
to assess historic or future events	3.21	High	2
does the information affects the economic decision users n your organization	3.12	High	3
Materiality is one of the assumptions used in financial reporting contributes to relevance in your bank	3.08	High	4
The information is reliable when it is free form bias and errors in your bank	3.03	High	5
The term reliable is measured by the extent of quality of the staff	3.02	High	6
The information is true and correct when is comply with IFRS in your bank	2.95	High	7
<b>Sub total average mean</b>	<b>3.09</b>	<b>High</b>	
<b>Comparability</b>			
The performance of financial reporting depends on comparability of the two different statement on differently years in your bank	3.02	High	1
Presentation of the financial report for the current year depend on the comparability of previous year.	2.82	High	2
<b>Sub total average mean</b>	<b>2.92</b>	<b>High</b>	
<b>Timeliness</b>			
Timelines means having information available to decisions makers before it loses its capacity in your bank	3.20	High	1
timeliness refers to the time it takes to reveal information in your bank	3.00	High	2
<b>Sub total average mean</b>	<b>3.10</b>	<b>High</b>	

Source: primary data

**Table 4B**  
**Level of performance of financial reporting in terms of**  
**understandability**

<b>Items on understandability</b>	<b>Mean</b>	<b>Interpretation</b>	<b>Rank</b>
Selecting and applying accounting policies make users to understand financial statement in your bank	3.42	Very High	1
Providing additional disclosures when the requirements in IASs affects performance in your bank	3.36	Very High	2
Financial statement should be clearly so that it can makes users to understand the financial positions.	3.35	Very High	3
Inappropriate accounting treatments make difficult to understand the financial statement in your bank.	3.24	High	4
Financial reporting is all about presenting useful information to users in your bank	3.19	High	5
Users must be able to understand the information within your report?	3.15	High	6
The terms used in financial statement are known by your shareholders	3.13	High	7
Understandability ensures that a users equipped with the basic knowledge in your bank	3.03	High	8
Users of financial statement are assumed to have sufficient knowledge to study the information properly in your bank	3.01	High	9
Applying the accounting principle make easy and simple financial statement to users	2.97	High	10
Financial statement should aid in the evaluation of the amounts and timing in your bank.	2.96	High	11
Misleading the accounting police makes difficult the financial statement to understand	2.93	High	12
<b>Sub total mean</b>	<b>3.14</b>	<b>High</b>	
<b>Averall mean</b>	<b>3.06</b>	<b>High</b>	

Source: primary data

Table 4A Results indicated that there were different levels of performance of financial reporting on different aspect. For example, respondents rated the level of information in the financial statement are relevant to the users in your bank (mean=3.25) equivalent to agree and rated as high;

All items in financial statement help users to assess historic or future events (mean=3.21) equivalent to agree rated as high; does the information affects the economic decision users in your organization (mean=3.08) equivalent to agree and rated as high, materiality is one of the assumptions used in financial reporting contributes to relevance in your bank (mean =3.03) equivalent to agree and was rated high; the information are reliable when it is free from bias and errors in your bank to be high (mean =3.02) and finally the information is true and correct when is comply with IFRS in your bank was ranked as high (mean=2.95) equivalent to agree. All items on relevance and reliability were rated as high (mean 3.09) indicating that there is a relatively good quality of the report on relevance and reliability in bank of Kigali, Rwanda.

Table 4B concerning understandability, respondents rated the quality of understandability to be high with the total (mean=3.14) equivalent to agree. This was attributed to the bank of selecting and applying accounting policies make users to understand Financial statement which were rated as very high (mean=3.42) equivalent to agree and rated as very high, providing additional disclosures when the requirements in IASs affects performance in your bank (mean=3.36) equivalent to be very high; and Financial statement should present fairly makes the user to understand the financial positions to be very high (mean=3.35) equivalent to strongly agree and rated as very high to mention a few.

Regarding comparability, the respondents rated it as high (mean= 2.92) equivalent to agree and timeliness was also rated as high (mean =3.10) equivalent to agree. To get a summary on how respondents rated performance of financial reporting, an average total mean was computed for all the four qualities of financial reporting, which were rated to be high (mean=3.06); agreed that

respondents rated performance of financial reporting as being affected by all four characteristics of quality of financial reporting in bank of Kigali.

### **Relationship between the computerized accounting systems and performance of financial reporting.**

The fourth and last objective in this study was to determine if there is significance relationship between computerized accounting systems and performance of financial reporting in bank of Kigali, Rwanda. For which it was hypothesized that the mean perceptions of respondents from the selected branches of bank of Kigali regarding computerized accounting system and performance of financial reporting do not significantly correlated. To test this hypothesis, the researcher correlated the mean perceptions computed in table 3 and 4 for respondents from all the branches of bank of Kigali involved in this study, using pearsons linear coefficient (PLCC).

**Table 5**  
**Relationship between computerized accounting systems and performance of financial reporting in Kigali Rwanda**

<b>Variables correlated</b>	<b>Computed r-value</b>	<b>P-value</b>	<b>Interpretation of correlation</b>	<b>Decision on Ho</b>
Computerized accounting systems Vs performance of financial reporting	0.603	0.017	Significant correlation	Rejected

Source: primary data

Table 5 indicates that there is a significant relationship between computerized accounting systems and performance of financial reporting in selected bank of Kigali, Rwanda basing on the sig value (0.017) Since it was less than 0.05 the mean perceptions from the overall selected bank of Kigali, Rwanda significantly related that is computerized accounting systems Vs overall performance of financial reporting ( $r=0.603$ ,  $\text{sig}=0.017$ ).

**Table 6 Regression analysis**

Variables regressed	Computed F-value	R <sup>2</sup>	T-value	Interpretation	Decision on Ho
Level of performance of financial reporting Vs computerized accounting systems	7.425	0.364	2.725	Significant effect	Rejected

Source: primary data

Regression analysis results indicated that the independent variable (computerized accounting systems) included in the model significantly influences changes in the dependent variable (performance of financial reporting) ( $r=0.36$ ,  $\text{sig.}=0.017$ ); which led to a conclusion that the level of computerized accounting systems significantly explains the rate of performance of financial reporting in bank of Kigali. The results further indicate that computerized accounting systems contribute 36% towards performance of financial reporting of selected bank of Kigali Rwanda as indicated by the adjusted  $R^2$  value of 0.36. Basing on the sig value (0.017) the null hypothesis was rejected because it was less than 0.05, leading to a conclusion that computerized accounting systems and performance of financial reporting are significantly related among of selected branches of bank of Kigali Rwanda

## **CHAPTER FIVE**

### **FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**

#### **Findings**

This study was set out to establish the relationship between computerized Accounting systems and performance of financial reporting in selected bank of Kigali. Rwanda which was guided by the following objectives, To determine the profile of the respondents in terms of age, gender, designation, income, and education level, to determine the level of computerized accounting systems in terms of (preparation of accounting documents, recording of transactions, trial balance) in bank of Kigali, Rwanda, to determine the level of performance of financial reporting in terms of (Relevance and reliability; comparability, timeliness and understandability) in bank of Kigali Rwanda; To establish whether there is a significant relationship between computerized Accounting systems and performance of financial reporting in selected bank of Kigali Rwanda.

The table 2 shows that majority of the respondents were below 39years(61%), which is in line with the age distribution in bank of Kigali where the biggest portion of employees lies below 35 years and( 15%) are above 60 years.

Regarding gender most respondents in the study sample were male (59%), indicating that the area of the study is dominated by male as compared to female(48%). Regarding designation ,most respondents in this study were employees of lower management 50 respondents(42%) and only 30 respondents (25%) were top managers. Such a distribution of employees at any organization is expected as it is normal that most employees at any company are in lower management and few are in top level management. Regarding level of income, results indicate that majority of employees are low income earners(42%),medium level income earners (34%) and high level income earners(24%).this however is surprising to find that most employees in banks, Rwanda are low income earners. It is though assumed that the sampling procedure could have been not suitable for such people or that they could have been biased on income entitlement.

Regarding education level ,results indicate that respondents in selected bank of Kigali in Rwanda are relatively educated. At least no respondent was below diploma level as they were (42%), and master's level (25%).

Data was analyzed using SPSS descriptive statistics for means showed that the level of computerized accounting systems (preparation of account documents, recording transactions and trial balance and Financial statement) (mean 3.18) which indicates that most of this bank of Kigali is in line with adoption of computerized in their activities. The level of performance of financial statement in terms of (relevance and reliability, comparability, timeliness, and understand inability) in bank of Kigali Rwanda was rated as (mean 3.06) ; ; whether there is a significant relationship between the level of computerized accounting systems and performance of financial reporting in bank of Kigali Rwanda( $r=0.603$  sig. 0.017).

The Pearson's linear correlation of coefficient results indicated a significant relationship between computerized accounting systems against the various indicators of performance of financial reporting relevance and reliability, comparability, timelines and understandability ( $r=0.603$ ,sig value=0.017 This is in line with Eskow and Denis. 2001 who found out that there is a significant relationship between computerized accounting systems and performance of financial reporting.

Regression analysis results indicated that the independent variable (computerized Accounting systems) included in the model significantly influences changes in the dependent variable ( $r=0.36$ , sig. = 0.017); which led to a conclusion that computerized accounting systems significantly explains the rate of performance of financial reporting in bank of Kigali Rwanda.

## **Conclusion**

The study concluded that there was a high level of computerized accounting systems in terms of (preparations of accounting document, recording transactions and trial balance in bank of Kigali Rwanda and there was also a high level of performance of financial reporting in terms of relevance and reliability, comparability, timeliness and understandability.

The study concluded that the computerized accounting systems is significantly correlated to the performance of financial reporting. Indicating tat the computerized accounting systems is responsible for the high performance of financial reporting

## **Recommendations**

From the findings and summary, the researcher recommends that first and fore most, the company needs to acquire a computerized accounting system that suits the organizational needs. Enough resources need to be saved for a tailor made software and system analyst need to be consulted in this important issue. There should also be routine system maintenance programs put in place so that the system can get rid of shortfall such as viruses, fraud among others that may affect the system operations. This should be done so that the system can operate to the expectation of management and other users. On the management point of view, it is important that staff for handling transactions is trained so as to improve on the accuracy and speed in posting. With increased improvements and versions of accounting packages, staff needs constant and continuous training by the authorized dealers of the packages so that they remain well acquainted with the knowledge and experience of the package. In addition to the training, it is important to constantly appraise the staff to check which staff is failing the system as regards reporting unbiased financial information. The company needs more internal audit reviews to appraise and check the strength of the instituted controls within the system. The computerized accounting system is prone to fraud in cases where physical cash is involved. Without internal audit reviews, there may arise cases of teaming and lading fraud that may pass unnoticed. It is therefore important external auditors come in once in a while to do audit.

There is need to increase the security levels in the internal control system. Management needs to ensure that requisitions are authorized; cheque payment, vouchers and other source documents are approved. On recording, it is important to have a clerk to enter the data which is then updated yet by another person preferably one with more experience and expertise. Management can also



consider the option of using a networked system linking all the system in the finance and accounting department. This is because the current system uses standalone personal computers. In this way, errors and fraud possibilities are minimized thus improving on the quality of financial reports.

### **Areas of Further Studies**

There is need to explore whether it is only the qualitative characteristics that determine the quality of financial reporting or if there are other factors. If there are, such factors also need to be established. More research should be carried out about how the computerized accounting system can be run alongside the manual system. It is generally accepted that the computerized system alone is very vulnerable. Therefore, there is need to investigate how the two system can be used concurrently. Further research also needs to be undertaken to establish the role of management in promoting the quality of financial reporting in an entity.

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## APPENDIX I

### TRANSMITTAL LETTER



**KAMPALA  
INTERNATIONAL  
UNIVERSITY**

Ggaba Road - Kansanga  
P.O. Box 20000, Kampala, Uganda  
Tel: +256- 41- 266813 / +256- 41-267634  
Fax: +256- 41- 501974  
E- mail: admin@kiu.ac.ug,  
Website: www.kiu.ac.ug

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**OFFICE OF THE HEAD OF DEPARTMENT, ECONOMICS AND  
MANAGEMENT SCIENCES  
COLLEGE OF HIGHER DEGREES AND RESEARCH (CHDR)**

Date: **August, 2012**

**RE:REQUEST FOR HAGUMIMANA FRANK MBA/22095/113/DU  
TO CONDUCT RESEARCH IN YOUR ORGANISATION**

The above mentioned is a bonafide student of Kampala International University pursuing Masters of Business Administration.

He is currently conducting a research entitled "**Computerised Accounting Systems and Performance of Financial Reporting in Bank of Kigali, Kigali Rwanda**"

Your organization has been identified as a valuable source of information pertaining to his research project. The purpose of this letter is to request you to avail him with the pertinent information he may need.

Any information shared with him from your organization shall be treated with utmost confidentiality.

Any assistance rendered to him will be highly appreciated.

Yours truly,

**Mr. Malinga Ramadhan  
Head of Department,  
Economics and Management Sciences, (CHDR)**

**NOTED BY:**

Dr. Sofia Sol T. Gaite  
Principal-CHDR

**APPENDIX II**  
**CLEARANCE FROM ETHICS COMMITTEE**

Date\_\_\_\_\_

**Candidate's Data**

Name\_\_\_\_\_

Reg.#\_\_\_\_\_

Course\_\_\_\_\_

Title of Study  
\_\_\_\_\_  
\_\_\_\_\_

**Ethical Review Checklist**

**The study reviewed considered the following:**

- Physical Safety of Human Subjects
- Psychological Safety
- Emotional Security
- Privacy
- Written request for Author of Standardized Instrument
- Coding of Questionnaires/Anonymity/Confidentiality
- Permission to Conduct the Study
- Citations/Authors Recognized.

**Results of Ethical Review.**

- Approved
- Conditional (to provide the Ethics Committee with corrections)
- Disapproved/Resubmit proposal.

**Ethics Committee (Name and Signature)**

Chairperson\_\_\_\_\_

Members\_\_\_\_\_

**APPENDIX III**  
**INFORMED CONSENT**

I am giving my consent to be part of the research study of Mr. Hagumimana that will focus the contributions of computerized accounting system in the performance of financial reportings in bank of kigali Rwanda. I shall be assured of privacy, anonymity and confidentiality and that I will be given the option to refuse participation and right to withdraw my participation any time.

I have been informed that the research is voluntary and that the results will be given to me if I ask for it.

Initials:\_\_\_\_\_

Date\_\_\_\_\_

**APPENDIX IV**  
**RESEARCH INSTRUMENT**

**1. QUESTIONNAIRE FOR RESPONDENTS**

**Dear Sir/ Madam**

I am a candidate for Masters Degree of Business Administration at Kampala International University and currently pursuing a Thesis entitled "**Computerized Accounting System in the Performance of Financial Reportings in Bank of Kigali Rwanda**". In view of this empirical investigation, may I request you to be part of this study by answering the questionnaires? Rest assured that the information that you provide shall be kept with utmost confidentiality and will be used for academic purposes only.

As you answer the questionnaire, be reminded o respond to the items in the questionnaire thus not leave any item unanswered. Further, may I retrieve the filled out questionnaire with in 5 days from the date of distribution?

Thank you very much in advance

Yours faithfully

Mr. Hagumimana Frank

## INFORMED CONCENT



**BANK OF KIGALI**  
Financially transforming lives

Kigali, 27/08/2012

I here by confirming that Mr. HAGUMIMANA FRANK

REG Number: MBA/22095/113/DU

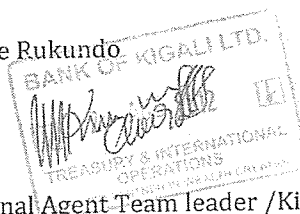
Is allowed to conduct the research in our institution under the topic:

The Contributions of Computerized Accounting and Performance of  
Financial Reporting of Selected Bank of Kigali in Rwanda

Any assistance rendered to him will be highly appreciated

Yours faith fully

Claude Rukundo



Regional Agent Team leader /Kigali

Company Code/ TIN No. 100003458 • RSE Ticker: BOK • Capital: RWF 6673370000 • Swift: BKGRWRW  
P.O. Box: 175 Kigali • 8112, Avenue de la Paix-Kigali • Tel: (250) 252 583 100 • Cell: (250) 788 143 000  
Fax: (250) 252 575 904, (250) 252 573 461 • Email: bk@bk.rw ; www.bk.rw



## **APPENDIX IVA**

### **FACE SHEET: DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS**

Direction: please tick

1. Age

- ☐ 20-39
- ☐ 40-59
- ☐ above 60

2. Gender

- ☐ Male
- ☐ Female

3. Employee designation

- ☐ Top level managers
- ☐ Middle level managers
- ☐ Lower level manager

4. Level of income

- ☐ Low
- ☐ Medium
- ☐ High

5. Highest academic level

- ☐ Diploma
- ☐ Bachelors degree
- ☐ Masters degree



## Appendix IVB

### QUESTIONNAIRE ON LEVEL OF COMPUTERISED ACCOUNTING SYSTEMS

Please describe the level of computerized accounting systems in your institution, respond to each item by using the scoring guide below. Kindly write your best choice in the space before each item. Be honest about your options as there is no right or wrong answer.

SCORE	RESPONSE MODE	DESCRIPTION
4	Strongly agree(SA)	You agree with no doubt at all
3	Agree(A)	You agree with some doubt
2	Disagree(D)	You disagree with no doubt at all
1	Strongly disagree(SD)	You disagree with no doubt at all

- 
- \_\_\_\_\_ 1. Computers help in preparing accounting documents like cash memo, bills.
- \_\_\_\_\_ 2. Computer prepare and provides fasters, accurate entry of transactions and all documentations
- \_\_\_\_\_ 3. Computer prepare and gather the information systems in the database.
- \_\_\_\_\_ 4. Every day business transactions are recorded with the help of computer software
- \_\_\_\_\_ 5. Every accounts and transactions is assigned a unique code where the grouping of accounts is done.
- \_\_\_\_\_ 6. After recording of transactions the data is transferred into ledger accounts by computer.
- \_\_\_\_\_ 7. Trial balance is prepared by the computer to check accuracy of records
- \_\_\_\_\_ 8. With the help of trial balance, the computer can be programmed to prepare the statement of comprehensive income and statement of the Position.
- \_\_\_\_\_ 9 The staffs that are working in the current system have the ability to use computer.

- \_\_\_\_ 10. There are enough financial allocations for the processing of building a modern network to receive the computerized accounting system.
- \_\_\_\_ 11. The expected benefit obtained from applying a computerized accounting system is greater than the cost of obtaining it.
- \_\_\_\_ 12. The managerial performance in the computerized accounting system assesses deviations of individuals better than manual system
- \_\_\_\_ 13. The computerized accounting system is characterized by easiness of usage more than the manual system
- \_\_\_\_ 14. The computerized accounting system is more flexible than manual system.
- \_\_\_\_ 15. The computerized accounting system provides easy reference and access to the information.

## Appendix IVC

### QUESTIONNAIRE ON LEVEL OF PERFORMANCE OF FINANCIAL REPORTING

Please describe the level of performance of financial reporting in your institution, respond to each item by using the scoring guide below. Kindly write your best choice in the space before each item. Be honest about your options as there is no right or wrong answer

<b>SCORE</b>	<b>RESPONSE MODE</b>	<b>DESCRIPTION</b>
<b>4</b>	Strongly agree(SA)	You agree with no doubt at all
<b>3</b>	Agree(A)	You agree with some doubt
<b>2</b>	Disagree(D)	You disagree with no doubt at all
<b>1</b>	Strongly disagree(SD)	You disagree with no doubt at all

- 
- \_\_\_\_\_ 1. The information in the financial statement are relevant to the users in your bank.
- \_\_\_\_\_ 2. Once all items in financial statement help users to assess historic or future events
- \_\_\_\_\_ 3. does the information affects the economic decision users in your Organization
- \_\_\_\_\_ 4. Materiality is one of the assumptions used in financial reporting  
Contributes to relevance in your bank
- \_\_\_\_\_ 5. The information is reliable when it is free from bias and errors in your bank
- \_\_\_\_\_ 6. The term reliable is measured by the extent of quality of the staff
- \_\_\_\_\_ 7. The information is true and correct when it complies with IFRS in your bank
- \_\_\_\_\_ 8. The performance of financial reporting depends on comparability of the two different statements of different years in your bank
- \_\_\_\_\_ 9. Presentation of the financial report for the current year depends on the Comparability of previous year.

- \_\_\_\_\_10. Timeliness means having information available to decisions makers before it loses its capacity in your bank
- \_\_\_\_\_11. Timeliness refers to the time it takes to reveal information in your bank
- \_\_\_\_\_12. Selecting and applying accounting policies make users to understand financial statement in your bank
- \_\_\_\_\_13. Providing additional disclosures when the requirements in IASs affects performance in your bank
- \_\_\_\_\_14. Financial statement should be clearly so that it can makes users to understand the financial positions.
- \_\_\_\_\_15. Inappropriate accounting treatments make difficult to understand the financial statement in your bank.
- \_\_\_\_\_16. Financial reporting is all about presenting useful information to users in your bank
- \_\_\_\_\_17. Users must be able to understand the information within your report?
- \_\_\_\_\_18. The terms used in financial statement are known by your shareholders
- \_\_\_\_\_19. Understandability ensures that a users equipped with the basic knowledge in your bank
- \_\_\_\_\_20. Users of financial statement are assumed to have sufficient knowledge to study the information properly in your bank
- \_\_\_\_\_21. Misleading the accounting police makes difficult the financial statement understand
- \_\_\_\_\_22. Applying the accounting principle make easy and simple financial Statement to users
- \_\_\_\_\_23. Financial statement should aid in the evaluation of the amounts and timing in your bank.

## **RESEARCHER'S CURRICULUM VITAE**

### **1. IDENTIFICATION**

First name : Frank

Surname : Hagumimana

Date of birth: July, 12, 1985

Place of birth: Democratic Republic of Congo

Nationality : Rwandese

Marital status: Single

### **2. CONTACT**

Residence: Kigali

Phone # : 0788588652

E-mail: financefrank72@yahoo.com

### **3 EDUCATIONAL BACKGROUND**

**2011 TODATE:** : University Studies at Kampala International University (Rwanda) in school of post graduate studies and research[master of business administration finance and accounting]

**2008 to 2011:** University Studies at Kampala International University (Rwanda) Bachelor of business administration in Accounting Option.

**2004 to 2007:** Secondary studies at college inyemeramihigo of gisenyi and awarded a certificate in accounting option..

## **6 REFERENCES PERSONS**

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### **MUHIRE YVES**

Conflict Resolution officer (Public Service commission)

Cell: +250 788480056

**I, HAGUMIMANA FRANK** affirms that the information provided above is true and complies with reality.



