

**THE IMPACT OF THE USE OF COMPUTERISED ACCOUNTING  
SYSTEMS IN FINANCIAL REPORTING, A CASE STUDY OF RURAL  
BANKS, GHANA**

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**A DISSERTATION SUBMITTED TO THE DEPARTMENT OF  
BUSINESS STUDIES, CHRISTIAN SERVICE UNIVERSITY COLLEGE  
IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE  
AWARD OF THE DEGREE OF BACHELOR OF BUSINESS  
ADMINISTRATION**

**JUNE 2012**

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***BY***

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BUSINESS ADMINISTRATION**

**JUNE 2012**

## STATEMENT OF AUTHENCITY

We have read the Christian Service University College's regulations relating to plagiarism and certify that this Business Plan is all our work and does not contain any unacknowledged work from any other source. We also declare that we have been under supervision for this Business Plan herein submitted.

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## **DEDICATION**

We dedicate this masterpiece to our lecturer and supervisor Mr. David Adjei Abbam for his stupendous support and contribution to seeing this work to completion even when he was under the weather. God bless you Sir, for helping us.

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## **ABSTRACT**

The study focuses on assessing the impact of the use of Computerised Accounting Systems in the corporate reporting of rural banks in Ghana. The centre of attention was on three rural banks namely Nsutaman, Nwabiagya and Okomfo Anokye Rural Banks; all in the Ashanti Region. A stratified sampling technique was used to select this sample. The Banks were stratified as follows: computerized and networked bank computerized but not networked and partially computerized. The main objectives of this work is to explore how Computerised Accounting Systems (CAS) have forever changed many aspects of business and accounting practices especially in corporate reporting and to consider the main reasons for the reluctance of some Rural Banks to adopt and utilize this new capability.

The focus of the research was on areas that the researchers considered very critical in Computerised Accounting System (CAS). These areas include: the need for CAS, the cost-benefit analysis of a change to CAS, financial and non-financial benefits of CAS, factors considered before choosing accounting software and challenges associated with the use of CAS and how these challenges can be overcome.

The research concluded that the advantages of a Computerised Accounting System far outweigh its associated challenges as it has impacted the financial reporting of the banks positively. Hence, there is the need for businesses, particularly rural banks to adopt a Computerised Accounting System.

Recommendations were that rural banks should make a meticulous effort to migrate onto the Terminus 24, a CAS that the government of Ghana has introduced, as it comes with added advantage to serve as a platform in which all the rural banks in the country are networked to each other to facilitate faster and efficient banking.

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## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 BACKGROUND OF THE STUDY**

The primary objective of an accounting function in an organisation is to process financial information about the activities of the organisation and prepare financial statements at the end of the accounting period. The modern method of accounting is based on the system created by an Italian monk *Fra Luca Pacioli*. He developed this system over 500 years ago. This great and scientific system was so well designed that even modern accounting principles are based on it (deSantis, 2010).

Section 123 of Ghana's Companies Code (1963), Act 179 obliges all companies to keep proper books of accounts with respect to their financial positions and changes therein. These books shall be kept in respect of all sums of money received and expended by, or on behalf of the company and the matters in respect of which the receipt and expenditure takes place; all sales and purchases by the company of property, goods and services; the assets and liabilities of the company and the interests of the members therein.

According to ISAB Framework for preparation and presentation of financial statement, the objective of financial statements is to provide information about the financial position, financial performance and changes in financial position of a company that is useful to a wide range of users in making economic decisions. These financial statements are usually directed towards the common information needs of these users and as a result, it serves as their major source of financial information. Users of these financial statements include shareholders, prospective investors, employees, customers and government. The act of communicating financial information to these users is known as Financial

Reporting. Financial Reporting can be defined as the process of presenting financial data about a company's financial position, the company's operating performance, and its flow of funds (Rose & Hudgins, 2008). Financial Reporting is thus, the presentation of a complete set of financial statements which consist of a

- ❖ Statement of financial position at the end of the period
- ❖ Statement of comprehensive income for the period
- ❖ Statement of changes in equity for the period
- ❖ Statement of cash flows for the period. (Elliot and Elliot, 2006)
- ❖ Notes and explanatory notes to the accounting policies used (Greuning, 2006)

In addition to these statements, the Companies Code also outlines other additional reports such as:

- ❖ A report by the directors
- ❖ A report by auditors (s. 133)

In the past, in order to achieve the above requirements, many businesses maintained their records manually in books (Journal, Cash Book, Special Purpose Books, and Ledgers, among others) – hence the term “bookkeeping” came about. This method of keeping manual records was cumbersome, slow, and prone to human errors of translation. Those days, due to the small volume of accounting data, accountants found it quite manageable using the manual system.

At the turn of the millennium, internationalization of economic trade and globalization of businesses have been on the ascendancy. Businesses are going international for various reasons which include: the presence of cheap resources overseas, better tax regulations,

trade liberalization, and other favourable legal requirements. Other businesses are expanding internally. All these activities have bearing on the accounting procedures and processes of an organisation. With a substantial increase in the volume of accounting transactions and increase in exposure of information to errors due to complexity of these accounting systems, there was a need for a system which could store and process accounting data with increased speed, storage, and processing capacity. This led to the development and introduction of accounting software packages.

Accounting Software is a class of computer programs that perform accounting operations. Accounting Software is an application software that records and processes accounting transactions within functional modules such as accounts payable, accounts receivable, payroll, and trial balance. Thus, these software packages allow the whole accounting system to be run on a computer hence the name Computerised Accounting System. (Daniel Bricklin, 1985)

Every business has numerous processes; some simple, others complex and cumbersome. But as the business grows, acquires new customers, enters new markets and keeps pace with constant changes in information technology, companies need to maintain highly accurate and up-to-date accounting, inventory and statutory records. This is where a Computerised Accounting System helps simplify, integrate, and streamline all the business processes, cost-effectively and easily and helps presents the true picture of all the business undertakings to users of financial reports. With the decrease in the price of computers and accounting programs, this method of keeping books is becoming popular (Raymond and Bergeron, 1992).

In today's computerized, interconnected, global business environment, the accounting profession must deal with a host of complex issues that never existed in the past. For instance, how to capture and record new business transactions and events, develop value-added business and information processes, create new value-chain and supply-chain opportunities, disseminate useful knowledge to a wide array of information consumers, and provide assurance services across the entire spectrum of economic activities to reflect some of the more compelling topics of interest.

## **1.2 PROBLEM STATEMENT**

The advancements in information technology have eventually led to the introduction of Computerised Accounting Systems in corporate reporting to help produce relevant and faithful representative financial reports for both management and external users for decision making (Greuning, 2006). The many advantages from the use of these systems have led many to conclude that Computerised Accounting Systems in Corporate Reporting is the 'engine of growth' in business organisations (Frenzel, 2006).

It is worth noting that, notwithstanding the introduction of these Computerised Accounting Systems and despite the enormous benefits from the use of these systems, the problem is that some companies still make use of the Manual Accounting Systems which are often characterised by keeping a large number of books and are usually associated with errors in recording large volumes of transactions. Reasons for the use of the manual accounting system may be attributed to factors such as inadequate supply of expertise knowledge about the Computerised Accounting Systems; high cost of installation and maintenance; resistance to change; risks of being hacked; power failure; viruses and losing information.

The problem is what could be the reasons for the reluctance of some Rural Banks to adopt the use of Accounting Software in corporate reporting? This would lead us to look into the positive effects of accounting software in corporate reporting to the business world as well as the challenges that hinder the smooth use of the Computerised Accounting Systems. With increased complexity of transactions and the emergence of new technologies, how are rural banks positioning themselves to take advantage of Information Technology to improve their corporate reporting?

### **1.3 RESEARCH QUESTIONS**

In order to address the research problem, the following questions would be administered:

- ❖ Why do companies especially rural banks refrain from using the Computerised Accounting Systems (CAS) in the corporate reporting?
- ❖ What are the needs for employing Computerized Accounting Systems in corporate reporting?
- ❖ What are the major benefits of using the computerized systems and to what extent are they better than the manual system in terms of productivity, efficiency and effectiveness?
- ❖ What are the cost-benefit analyses to be made in adopting computerized accounting systems?
- ❖ What factors should be considered before choosing accounting software?
- ❖ What are the non – financial benefits and problems associated with the use of CAS?

#### **1.4 OBJECTIVES OF THE STUDY**

The aim of this work is to explore how Computerised Accounting Systems have forever changed many aspects of business and accounting practices especially in corporate reporting. The objectives of the study are:

- ❖ To assess the cost-benefit analysis of a movement from a Manual Accounting System to a Computerised Accounting System in corporate reporting.
- ❖ To identify the non-financial benefits associated with the use of Computerised Accounting Systems in corporate reporting.
- ❖ To identify the challenges as well as problems associated with the use of these Accounting Software Packages.
- ❖ To identify the various factors considered before choosing a particular software package.
- ❖ To draw conclusion and give policy recommendation based on our findings for the improvement and successful running of these systems in Rural Banking.

#### **1.5 SIGNIFICANCE OF THE STUDY**

The study will help us to

- ❖ Outline the feasibility factors to be considered by companies who want to adopt a Computerised Accounting System in their Corporate Financial Reporting.
- ❖ Outline the importance of Computerised Accounting Systems in Corporate Reporting of companies. This will enable firms which have not yet incorporated Computerised Accounting Systems in their Corporate Reporting to do so.
- ❖ Identify and address some possible challenges associated with the use of a Computerised Accounting Systems in Corporate Reporting.
- ❖ Generate more interest for further work by researchers.



## **1.6 SCOPE OF THE STUDY**

The study focuses on assessing the impact of the use of Computerised Accounting Systems in the corporate reporting of three rural banks. They are: Nsutaman, Nwabiagya and Okomfo Anokye Rural Banks; all in the Ashanti Region. The study lasted for a period of three months. The selection mix of the banks provided a comparative point of assessing the impact both from the view point of a fully computerized and networked, fully computerized but not networked and a partially computerized rural bank.

## **1.7 ORGANISATION OF THE STUDY**

This study is organized into five distinct chapters. Chapter one (1) introduces the study by looking at the background through to the significance of the study and its limitations. Chapter two (2) deals with a critical analysis of prior related literature, however, chapter three (3) looks at the methodology of the research under study. Chapter four (4) deals with the presentation of the findings and the analysis of the data collected. Finally, chapter five (5) deals with the summary, conclusion and recommendations.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 INTRODUCTION**

The use of Accounting Information Systems (AIS) is a widely researched topic. While there is much research on the impact of Accounting Information Systems (AIS) in general; there is little research specifically on Computerized Accounting Systems (CAS) and its impact on financial reporting. Computerized Accounting Systems (CAS), however, is widely used in many corporate bodies including SMEs. For example, in Australia, the Yellow Pages (1997) reported that 76% of the small businesses surveyed had at least one computer and 75% of these used accounting software. Burgess (1997) in a review of IT adoption by Australian small businesses concluded that the main software application package used was accounting (Burgess 1997 and Wenzler 1996). To investigate the impact of Computerized Accounting Systems (CAS) on financial reporting, it would be reasonable to first review the more comprehensive literature on CAS and financial reporting. This literature review, therefore, begins with a discussion of the brief history of accounting, manual accounting systems and then review studies specifically focused on Computerized Accounting Systems and financial reporting. It will also take into account the history and financial reporting requirement of rural banks.

#### **2.2 ACCOUNTING**

Accounting is not only the oldest but also the most stable of the management disciplines. In spite of its stability and continuity, accounting has seen major changes during the past century. It would be surprising if a century from now, accounting is the same as today. Although we cannot look so far ahead, we can analyze the current conditions for clues about what to expect in the next decade or two (Sunder 1999). Accounting provides financial

information about a business or a not-for-profit organisation. Owners, managers, investors and other interested parties need financial information for decision making.

Financial accounting is the art of systematically identifying, measuring, recording, classifying and summarizing in a significant manner and in terms of money, transactions and events which are, in part at least, of financial nature, and communicating, analysing and interpreting the results thereof (Woode & Sangster, 2008).

### **2.3 ROLE/FUNCTIONS OF ACCOUNTING**

According to Sunder (1997) a business organization can be seen as a set of contracts among various participants: employees, shareholders, customers, vendors, managers, creditors, auditors, government, among others. Each party in the contract agrees to contribute resources. For example, employees and managers contribute skills, shareholders and creditors contribute capital, vendors provide machinery and materials, and customers provide cash. Each participant demands an inducement at least as large as the opportunity value of his contribution to the organization. For an organization to succeed, its production technology and set of contracts must satisfy each one of its participants. If he can get more elsewhere, he will quit the organization. If enough people quit, the organization collapses.

They therefore argued that, accounting is necessary to assemble, implement, enforce, modify, and maintain the contract set of organization. Accounting therefore plays five main functions in an organization.

The first requirement of control is to devise a system of measuring the contributions made by each agent. It should also determine the amount of incentive due them, and monitor the distribution of inducements so that each agent receives his due, no more and no less.

In addition, accounting helps compare the contributions made and the incentives received by each participant and distributing this information. Furthermore, accounting distributes information to various factor markets to keep them liquid and find replacements for participants who leave. Finally, accounting makes some information available in the form of common knowledge or public disclosure to help reduce conflict among participants at the time they renegotiate their contracts (Sunder 1997).

In its second function, the accounting system measures, records, and controls the outflow of resources from the organization. Payroll and benefit accounts for employees, shipping to customers, accounts payable to suppliers, and tax accounts measure the outflow of resources to the government (Sunder 1997).

In its third function, the accounting system compares the data on resource inflows and outflows to determine who has fulfilled his contract and to what degree. The accounting system prepares comparative reports on resource inflows and outflows related to various individuals in the organization. These statements are used to evaluate and adjust the contracts of these individuals (Sunder 1997).

In a fourth function, accounting helps assemble and maintain the contract set by finding the appropriate participants in the factor markets for labour, managers, customers, suppliers, and investors among others. All these PEOPLE must be convinced that participating in such an enterprise is in their own best interests. Pro forma financial statements, business plans, and budgets prepared by the organisation before the enterprise starts functioning help agents assess the costs and benefits of participating in the proposed enterprise in various roles. When contractual slots fall vacant, they must be filled from the factor markets (Sunder 1997).

Finally, when contract terms expire, they are often renegotiated under changed circumstances. Agents are tempted to issue threats, to quit their position in the organization if their terms were not revised in their favour. Such bluffs and threats sometimes lead to deadlock in negotiations, strikes, and therefore deadweight losses to society. Accounting performs its fifth function by sharing at least a minimal set of information among the negotiating parties to make it common knowledge, and help reduce the chances of breakdown. This is the primary purpose of public disclosure in larger organizations (Sunder 1997).

Conclusively, an organization can be seen as a set of contracts or alliances among many people who join them with the expectation of gain. Accounting, therefore, is the mechanism that defines implements, enforces, modifies, and maintains this system of contract.

## **2.4 ACCOUNTING SYSTEMS**

Every company applies accounting because it is generally accepted that companies have to reveal certain financial and management information to economic users and of course because accounting is an indispensable tool in business decision-making process. Accounting is an important part of every company thus; businesses are required to keep proper books of accounts (Section 123 of the Companies Code (1963), Act 179).

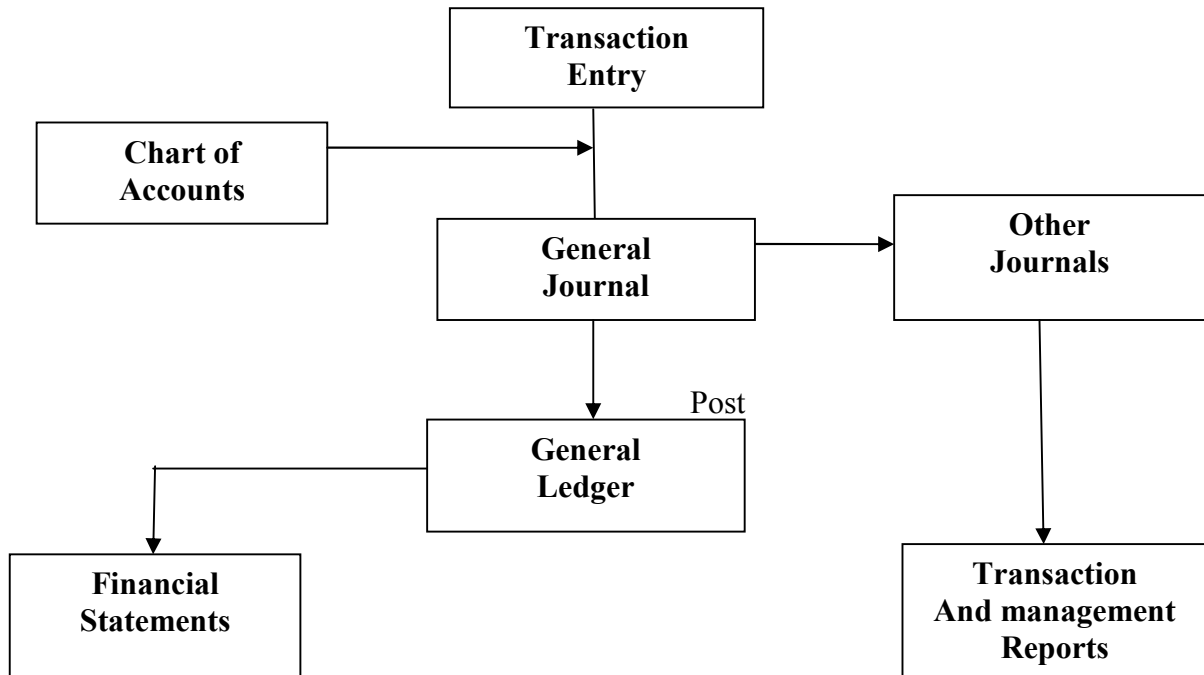
“Accounting can be divided into two basic categories: those which apply manual accounting and those which prefer computerized accounting systems” (Weber, 2010).

### **2.4.1 Manual Accounting System and its Shortcomings**

Briefly, a system is a set of interdependent elements that together accomplish specific objectives. Manual accounting system is an information system and Romney & Steinbart (2009) defined an information system as an organized means of collecting, entering, and processing data and storing, managing, controlling, and reporting information so that an organization can achieve its objectives and goals. Tanis and Dalci (2002) emphasised that, information system has the following components; Goals and objective, Inputs, Output, Data storage, Instructions and Procedure, Users, Control and Measures. Accounting systems as an “information system is a man-made system that generally consists of an integrated set of computer-based and manual components establish to collect, store, and manage data and to provide output information to users” ( Gelinas et al, 2005).

Manual accounting implies that employees perform the whole accounting cycle manually on a periodic basis: they draft trial balances, journalize transactions, and prepare financial statements. Extensively, Waterfield and Ramsing (1998), highlighted that, accounting system can be a simple manual one based on the general journal (where transactions are recorded chronologically as debits and credits), general ledger (where the activity from the general journal is summarized by account number), and other journals required to manage the business, such as purchase, payment, sales, receipts, and payroll journals. (Because of the expense of maintaining multiple manual journals, institutions typically do not prepare all of these other journals.) They further stated that, a manual accounting system typically includes at least the following and thus presented in fig 2.1 below: Chart of accounts, General journal, General ledger, Subsidiary ledgers (accounts receivable, inventory, and fixed assets), Transaction reports and financial statements.

**FIGURE 2.1 A MANUAL ACCOUNTING SYSTEM MODEL**



At first look, it is not very difficult and it is so indeed, but when there are thousands or millions of transactions the situation dramatically changes. Lots of transactions that must be processed in the accounting cycle make this process routine and even a little mistake or inaccuracy can cost all the cycle from the very beginning in order to find and correct the mistake. “...in manual accounting systems, processing of data is slow and subject to error” (Grabski and Marsh, 1994).

Despite the advantages of manual accounting systems such as comparative cheap workforce and resources, reliability, independence from machines, skilled workers availability; the manual system disadvantages include: reduces speed, increases workload of accountants, relatively slower internal control reporting, routine work and some others such as the issue of backups.

### **2.4.2 Computerized Accounting Systems**

In a study, Nash et al (1999) argued that with the improvements in technology, information systems have been computerized. Improvements in this technology have replaced manual bookkeeping systems with computerized ones, hence, accounting information systems that were previously performed manually are now performed by computers in most companies. While accounting systems have been around for centuries, the introduction of business technology and Computerized Accounting Systems radically changes the playing field.

Lately, Vitez (2010) reviewed that paper ledgers, manual spreadsheets and hand-written financial statements have all been translated into computer systems that can quickly present individual transactions into financial reports. Computerized Accounting Systems follow the same logic of journal, ledgers, reports and statements in a manual system. Computerized systems simply consolidate posting functions and other basic tasks into a "behind the scenes" system. Companies can also generate reports and financial statements easier, allowing for better performance management reviews.

Computerised Accounting System is therefore a computer based system which combines accounting principles and concepts as well as the concept of information system to record, process, analyse and produce financial information to its users for making economic decisions. (Gelinas et al, 2005)

The definition of a Computerised Accounting System from above shows that a Computerised Accounting System has the following components with an illustrative diagram in figure 2.2;



**Input:** Data inputs are the facts that are collected and processed by the information system. Data input includes capturing data from a source document such as a sales order or purchase order.

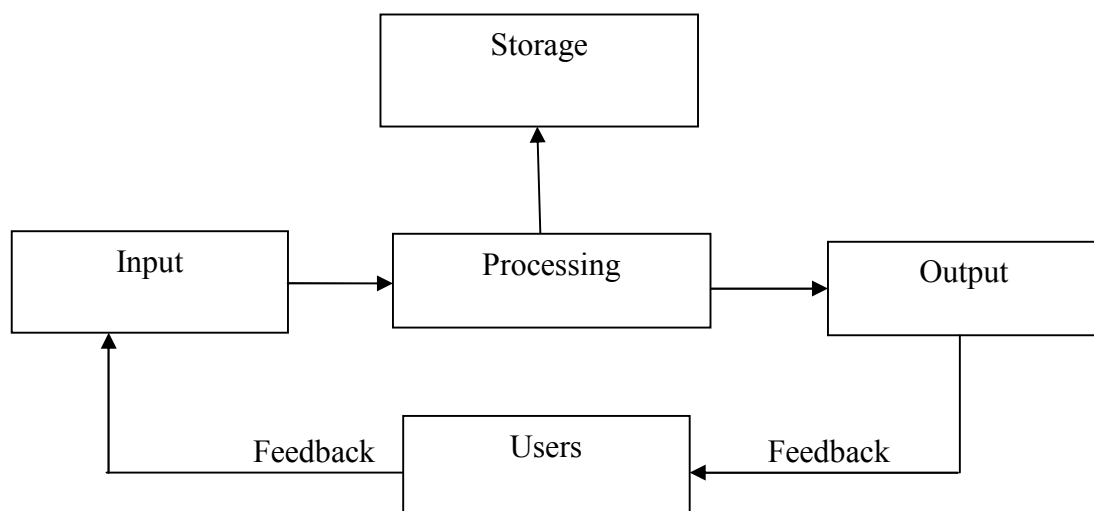
**Processing:** In order to produce useful and meaningful information, the data captured must be processed and organized into a useful form.

**Output:** Output is the meaningful and useful information produced by the information system. It is usually presented in the form of a report.

**Feedback:** After the information has been presented in the form of a report, there is the need for a feedback. Feedback tends to serve as a source of input and also a control measure in the information system.

**Storage:** It serves as the repository of relatively permanent data maintained over an extended period of time.

**Figure 2.2 A COMPUTERISED ACCOUNTING SYSTEM MODEL**



(Gelinas et al, 2005)

Indeed, Waterfield and Ramsing (1998) argued that, all organizations have an information system of some kind. Many might see a minimal system as sufficient—say, a manual accounting system that produces reports three months late. Furthermore, having good information is essential for an institution to perform efficiently and effectively—the better its information, the better it can manage its resources. Their research shows clearly that in a competitive environment, the institution with better information has a distinct advantage. This means that among other benefits companies adopt Computerized Accounting Systems (CAS) in order to obtain competitive edge.

Raymond and Bergeron (1992) researched into the increasing rate of adoption of CAS among SMEs and concluded that, the advent of powerful, low cost microcomputers, together with user-friendly accounting software and the benefits associated with the use of CAS, has allowed a greater number of SMEs to implement IT in recent years. Therefore, CAS adoption among corporate bodies in general is as a result of combination of different factors as well as the benefits associated with such.

In a study by McMahon et al (1991) and their counterpart Gorton (1999) they argued that, the need to facilitate financial management is a motivating factor for adopting accounting software.

Also in the article, “Understanding and using financial management systems to make decisions”, Kimunya et al (1999) considered some factors that managers should take into consideration before adopting Computerised Accounting Systems. These factors include the need to have accurate, consistent and timely data in a variety of reporting formats. They also discussed the need to consider the ability of the system to save accounting staff time.

## **2.5 IMPORTANCE OF COMPUTERISED ACCOUNTING SYSTEMS**

Computerized Accounting Systems are important to businesses in various ways. The use of computers is time-saving for businesses and all financial information for the business is well-organized (Baren, 2010).

### **2.5.1 Time and Cost Savings**

Using a Computerized Accounting Systems saves companies time and money. The use of a computer makes inputting accounting information simple. Transactions are entered into the system and the system processes and posts transactions accordingly. Computerized Accounting Systems reduce staff time preparing accounts and reduce audit expenses as records are neat, up-to-date and accurate. Better use is made of resources and time; cash flow should improve through better debt collection and inventory control. More importantly, the system helps present financial reports on time to aid in the economic decision making process of external users.

### **2.5.2 Organisation and Accuracy**

A Computerized Accounting System enables businesses to stay organized. When information is entered into the system, it makes finding the information easy. Employees can look up any financial information whenever it is needed. There is less room for errors as only one accounting entry is needed for each transaction rather than two (or three) for a manual system. The accounting records are automatically updated and so account balances (e.g. customer accounts) will always be up-to-date.

### **2.5.3 Storage and Speed**

Storing information is vital to a business. After information is entered into the system, the information is stored indefinitely. Companies perform backups on the system regularly to avoid losing any information. The introduction of Computerized Accounting Systems provides the ability to see the real-time state of the company's financial position.

### **2.5.4 Distribution**

Computerized Accounting Systems allow companies to distribute financial information easily. Financial statements are printed directly from the system and are distributed internally and externally to those needing the information. Reports can be produced which will help management monitor and control the business, for example the aged debtors analysis will show which customer accounts are overdue, trial balance, trading and profit and loss account and balance sheet.

In effect, Computerised Accounting Systems enable financial statements to be prepared and presented to meet the relevance and faithful representation criteria of financial statements.

## **2.6 CHALLENGES ENCOUNTERED WITH THE USE OF COMPUTERISED ACCOUNTING SYSTEMS**

Despite the numerous benefits of Computerised Accounting Systems that can be listed they are not without challenges. The impediments to implementing a CAS include: lack of time (Proudlock et al. 1999), owner-manager's view that the CAS is costly (Head 2000), perception that the technology is not suited to the nature of the business (ABS 2000), and lack of IT expertise (ABS 2000; Burgess 1997).

## **2.7 FINANCIAL REPORTING**

Having discussed the history and essence of Computerised Accounting Systems, it is imperative to assess the importance of financial reporting in every company. The scenario posed by Enron and other companies like WorldCom, Tyco, Adelphia, Global Crossing, and Xerox, endears both management and users of accounting information to pay critical attention to the content of the financial statements (Romney et al 2008).

The Companies Code, 1963 (179) of Ghana mandates management of every company identified under the code to prepare and present financial statements to members of the company at least once in every calendar year.

The process of periodically providing general-purpose financial information to people outside an organisation is termed financial reporting (Greuning, 2006). Financial Reporting can be defined as the process of presenting financial data about a company's financial position, the company's operating performance, and its flow of funds (Rose and Hudgins, 2008). Issues bothering on financial reporting are quite complex and cumbersome.

The function of financial reporting is to make publicly available information which concerns stewardship (for example, what resources are under control of the organization, and the consequence of their past use) and management's planning (for example, what are the future plans for the controlled resources, and how prior mistakes will be avoided) (Beaver 1978).

The end product of financial reporting is a financial report. This financial report generally consists of:

- ❖ Statement of financial position at the end of the period
- ❖ Statement of comprehensive income for the period
- ❖ Statement of cash flows for the period
- ❖ Notes to the accounts (Greuning,2006)

The Companies Code of Ghana, 1963 (Act 179) also compels companies to present financial statements to end users. However IAS 1 gives organisations the liberty to use names as they deem fit to represent the above financial statements.

Additionally, the operational manual for rural banks requires rural banks to present reports on their weekly, monthly and quarterly returns to Bank of Ghana. These reports are made in the following manner;

- ❖ Weekly statement of reserves, assets and deposit liabilities ( which shows the holding of liquid assets of a rural as well as the percentage of the total deposits)
- ❖ Monthly balance sheet and profit and loss statements
- ❖ Quarterly returns of loans and overdraft.

### **2.7.1 Financial Reporting of Rural Banks**

Bank of Ghana, as per the powers given to it by sec. 70(1) of the Banking Act, 2004(Act 673), directed all banks to adopt the IFRS reporting framework for preparing their financial statements for the year ended 31 December 2008. In line with this regulation, all rural banks as well as other commercial banks in Ghana prepare their financial statements in accordance with IFRS which was evidenced in their 2008 published accounts (PricewaterhouseCoopers, 2009).

The particular services that each financial firm chooses to offer and overall size of each financial-service organization are reflected in its financial statements. Literally, financial statements can be concluded to be a “road map” that link the past, present, and perhaps the future to abet stakeholders to make better economic decisions.

### **2.7.2 Importance of Financial Reporting**

Financial reporting is a means of providing financial information to users. Financial information is a tool and, like most tools, it cannot be of much direct help to those who are unable or unwilling to use it or who will misuse it. In view of this, Paton (1922) stated that we must assume an intelligent reader of financial statements.

- ❖ Financial reporting provides information that is useful to present and potential investors and creditors and other users in assessing the amounts, timing, and uncertainty of prospective cash receipts from dividends or interest and proceeds from sale, redemption, or maturity of securities or loans.
- ❖ Financial reporting provides general information about an enterprise's economic resources, obligations, and owners' equity. This helps identify the enterprise's financial strengths and weaknesses and assess its liquidity and solvency.

- ❖ Financial reporting provides a basis to evaluate information about the enterprise's performance during a period. This provides direct indications of the cash flow potentials of some resources and of the cash needed to satisfy many, if not all, obligations.
- ❖ A financial report provides information about how management of an enterprise has discharged its stewardship responsibility to owners for the use of enterprise resources entrusted to it.

## **2.8 RURAL BANKING IN GHANA**

Nair and Fisshab (2010) researched into innovations in rural and agriculture finance in rural and community banks in Ghana and found out that in Ghana, rural banks are the largest providers of formal financial services in rural areas. It was revealed that by the end of 2008, Ghana had 127 Rural Banks with a total 584 service outlets, representing about half of the total banking outlets in the country. Facts also shown that, before the late 1970s, rural dwellers in Ghana had almost no access to institutional credit for farm and nonfarm activities, and in many rural communities, secure, safe, and convenient savings and payment facilities hardly existed.

Their researches also showed that, the Government of Ghana took several measures to increase access to credit in rural areas, including facilitating the establishment of rural and community banks (RCBs). Now, the rural banks network reaches about 2.8 million depositors and 680,000 borrowers.

Extensively, their work showed that since 2002 the ARB Apex Bank has provided specialized services essential to improving the quality and scope of products offered by RCBs, and it



performs important supervisory functions delegated by the Bank of Ghana. Among the main services offered by the ARB Apex Bank are: check clearing, specie supply, treasury management, loan fund mobilization, and domestic and international money transfers. The ARB Apex Bank provides most of these services on a fee basis.

Highlighting on the legal and regulatory framework of the Rural and Community Banks, they concluded that RCBs are incorporated as limited liability companies and licensed by the Bank of Ghana within the framework of the Banking Act. The minimum level of capital required by RCBs is GH¢ 150,000 (US\$116,135). RCBs whose capital falls below this minimum are not allowed to pay dividends or open new branches or agencies until they attain the minimum level of capitalization.

The products and services offered by the rural banks are saving products (Savings accounts, current accounts, “Susu” deposits, and fixed or time deposits), credit products (microfinance loans, personal loans, salary loans, “Susu” loans, and overdraft facilities) and moneys transfer and payment (Nair and Fisshab, 2010).

## **CHAPTER 3**

### **METHODOLOGY**

#### **3.1 INTRODUCTION**

This chapter seeks to discuss the population and sample size, the techniques used for sampling and data collection, the various data collection instruments as well as the procedures used in measuring and analyzing the data. This chapter therefore seeks to describe how the whole research was conducted.

#### **3.2 THE RESEARCH DESIGN**

The research strategy adopted by the researchers is the multiple case study approach. The reason for this choice is to increase the reliability of the report as findings of the companies will be compared to find out the extent to which they follow a regular pattern.

#### **3.3 POPULATION**

This study focused on 25 registered Rural Banks in Ashanti Region. **See Appendix 1.**

#### **3.4 SAMPLE AND SAMPLING TECHNIQUE**

Only three banks of the above population which are: Nsutaman Rural Bank, Nwabiagya Rural Bank and Okomfo Anokye Rural Bank were selected for this case study.

A stratified sampling technique was used to select this sample. The Banks were stratified as follows: computerized and networked bank (Nsutaman Rural Bank), computerized but not networked (Okomfo Anokye Rural Bank) and partially computerized (Nwabiagya Rural Bank).

### **3.5 METHODS OF DATA COLLECTION**

Primary data was collected through the use of questionnaires and in-depth interviews. Secondary data was also sourced through publications, company's annual report and the use of the internet.

#### **3.5.1 Administering the Questionnaire**

The questionnaires (see **Appendix 2**) were taken to the following personnel for their respective responses;

- a. The General Managers of the three chosen banks; or
- b. The head of finance and accounts departments of the various companies; together with
- c. The head of the Information, Communication and Technology departments of the various companies.

#### **3.5.2 Conducting the Interview**

The personnel of the various departments were asked follow-up questions on the questionnaire to clarify some issues and also to obtain any other information useful to the research that was not captured by the questionnaire. **See Appendix 3.**

### **3.6 DATA ANALYSIS**

Considering the nature of the data that was collected, it was very appropriate to use both quantitative and qualitative approaches to analyse the data.

In terms of qualitative data, references and comparisons were made to existing and past information. We also applied our personal judgment in the analysis where we deemed it very necessary. With respect to the quantitative data gathered, ratios were computed to assess the advancements made by CAS to the financial health of the banks.

Other graphs were drawn to provide a pictorial view of the trend. Recommendations were then made based on the findings.

### **3.7 LIMITATIONS**

The main challenge was measuring the exact impact of Computerised Accounting System on the financial reports as well as on the rural banks as organisations. It was difficult obtaining reliable data. Mostly, for security purposes and confidentiality sake, the banks were not willing to reveal information concerning salaries, bonuses, overtime allowances per employee. It therefore became difficult to measure the financial benefits that accrue to the banks especially in the cases of labour cost, audit expense and stationery and clerical expenses.

It must be clarified that as the case considered three banks selected in stratified manner, conclusions drawn may not be representative of the entire population.

Also as the information was provided by different personnel in a descriptive manner this may leave room for important information to be left out.

Despite all these problems, an effort was made to gather much information through a tactfully prepared questionnaire to ensure information accuracy and also give a true representation of the findings.

## **CHAPTER FOUR**

### **RESEACH ANALYSIS AND DISCUSSIONS**

#### **4.1 INTRODUCTION**

In the previous chapter, the research design, the sample of the study, the data collection techniques, the method of data analysis and the statistical procedure of the research were discussed.

The focus of the research was on areas that the researchers consider very critical in Computerised Accounting System (CAS). These areas include: the need for CAS, the cost-benefit analysis made, factors considered before choosing accounting software and the non – financial benefits and problems associated with the use of CAS.

#### **4.2 THE NEED FOR COMPUTERISED ACCOUNTING SYSTEMS**

Of the three banks selected, two have already adopted Computerised Accounting System, Okomfo Anokye Rural Bank and Nwabiagya Rural Bank. However, Nsutaman Rural Bank is still in its adoption process. The two banks adopted Computerised Accounting Systems for several reasons including the under discussed.

##### **4.2.1 Increase in Efficiency and Effectiveness**

At the turn of the millennium, the financial sector in particular, and the business environment in general, has become very competitive. In their quest to achieve organisational goal of maximizing shareholders' wealth through better customer service, the two banks adopted Computerised Accounting Systems suitable for their operations. They are of the belief that Computerised Accounting Systems help produce quality information that helps in the efficient and effective performance of their operations.

From our research, the information we gathered suggest that the single most important reason for the adoption of Computerised Accounting Systems, is the need to increase efficiency and effectiveness in operations. From the figure below, 50% of the respondents' consideration confirmed that the need to increase efficiency and effectiveness was the single most important reason for adopting Computerised Accounting Systems.

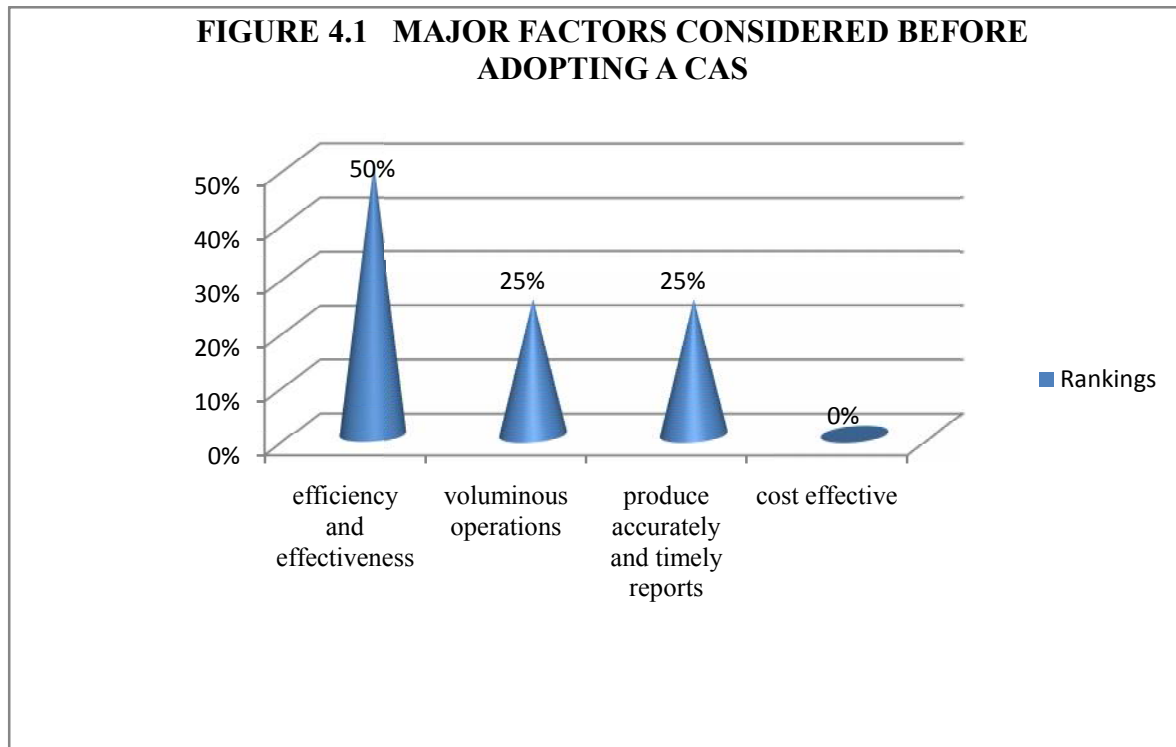
#### **4.2.2 Producing Accurate and Timely Reports**

Some of the qualitative characteristics of financial information include accuracy, timeliness, comparability and understandability. The use of a CAS facilitates a bank's ability to produce reports which possess such qualities. This is because the use of CAS leads to the generation of a report which is free from material errors and hence can be relied upon for making economic decisions. It is also noteworthy that, these reports are produced on time because it takes less time to process accounting transactions to generate a report. From the diagram below, 25% of the considerations of the respondents bothered on the need to produce accurate and timely reports as an important reason to adopt CAS.

#### **4.2.3 Operations of the company were voluminous**

One of the main authorised businesses of a bank is to receive money (deposits) from the public and as well as lend or advance money as loans to the public. Banks therefore encounter a whole lot of people who are either coming in to make deposits or borrow. This therefore leads to a large number of transactions within which to process and also huge database that must be maintained. Thus, there was the need for a system which could easily process these voluminous transactions easily and quickly and also hold the huge database, hence, the adoption of a CAS in their day-to-day operations. 25% of the respondents'

consideration pertained to the need to process voluminous operations as a reason to adopt CAS.



**Source: Field Survey, May 2012**

It must, however, be emphasized that the major factor considered by the banks before adopting their systems is to a large extent in line with what Waterfield et al (1998) said in their work that the use of computers in business is to ensure that all business and financial information is well organised effectively and efficiently. It is however contradictory with Raymond and Bergeron (1992) who argued that businesses implement CAS because of the advent of low cost microcomputers among other reasons.

### **4.3 FACTORS CONSIDERED BEFORE CHOOSING A COMPUTERISED ACCOUNTING SYSTEM**

Irrespective of whether their operations have been computerised or not, all three banks took into consideration the speed of the accounting system, its ability to produce accurate result, its storage capacity and its ease of use. Of these factors, 70% of their decision of going for the different software that they are using was based on the speed of the accounting system. The banks considered speed as the single most important factor considered when choosing accounting software. This was due to the fact that, with the current level of competition facing the banking industry, obtaining a substantial market shares means serving existing and potential customers faster than competitors.

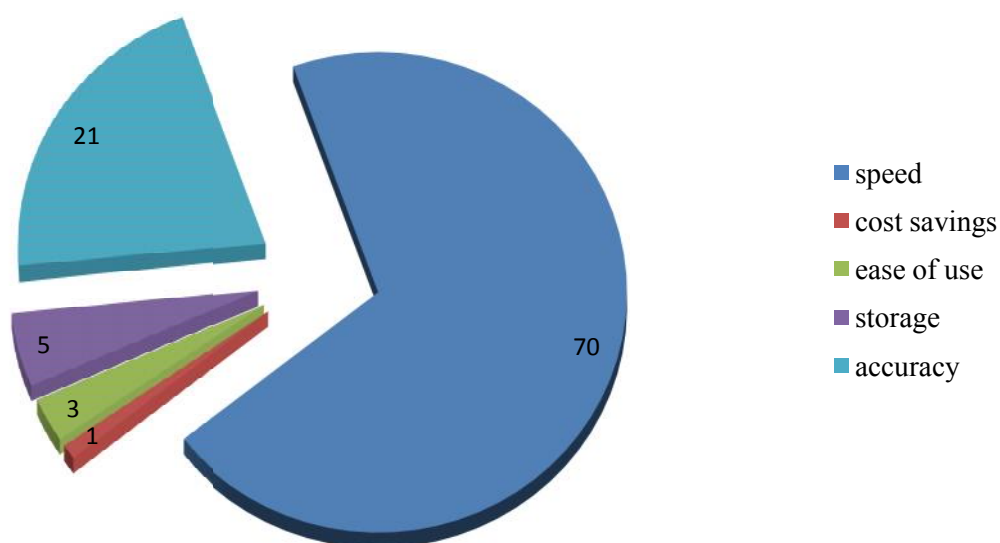
Therefore, a Computerised Accounting System that is able to generate financial and non-financial data at a very fast rate ensures that customers are served better so as not to lose them to competitors, thus improving customers' turnaround time.

Accuracy also formed 21% of their choice of CAS, as accuracy of financial figures is seen as an important factor which makes financial data free of material error for informed decision making. 5% of their choice was based on the storage capacity of the software (as banks have huge customer database as well as liquid assets).

The software upgrading and backup features were considered as part of the storage consideration. Cost savings and ease of use formed 1% and 3% respectively of the purchase consideration as shown by the pie chart below.



**FIGURE 4.2 FACTORS CONSIDERED IN CHOOSING ACCOUNTING SOFTWARE**



**Source: Field Survey, May 2012**

These factors, thus, confirmed the literature reviewed on the factors considered before choosing a CAS as captured in the article presented by Kimunya et al (1999/2000) that managers need to consider the accuracy, consistent and timely data in a variety of reporting formats.

#### **4.4 COST BENEFIT ANALYSIS**

Computerization of operations involves substantial amount of capital injection. The cost involved is very high to the extent that, it becomes uneconomical to implement such decision without any significant benefits derived by the banks as a result of the decision to implement the Computerised Accounting System. The essence of this section of the analysis is to assess the cost-benefits analysis of adopting Computerised Accounting Systems.

#### **4.4.1 COST COMPONENTS**

Costs of the computers were considered: purchase price, software costs, maintenance costs, and insurance. The figures were obtained from the financial statements spanning a period of three years (2007-2009). **See Appendix 4.**

##### **4.4.1.1 Okomfo Anokye Rural Bank**

The bank fully computerised its operations in the accounting year ending 2009 at the cost of GH¢68,960, with additional recurrent cost of GH¢34,200 in maintenance cost, and 25% of their annual insurance cost attributable to computers. In 2009, the insurance cost stood at GH¢2,579.

##### **4.4.1.2 Nwabiagya Rural Bank**

The bank has computerised its operations several years ago. However, due to the lack of relevant information predating the time of computerization, and the early years after the computerization process, it was agreed upon to use 2007 as the year of computerization. As such, the bank had the following amount standing in their balance sheet of 2007 with respect to computers GH¢ 163,182; with support and license fees in respect of computers standing at GH¢7,500.

##### **4.4.1.3 Nsutaman Rural Bank**

This bank is at the initial stage of computerizing its operations. Per the interview with the supervising manager, the group was made aware that, the bank has computerised 20% of its operations. As at the end of 2009, the balance on the computers in the balance sheet stood at GH¢12,072.

## **4.5 FINANCIAL BENEFITS DERIVED**

The financial benefits accruing to the banks are mostly indirect, with little direct benefits arising from the existence and usage of the Computerised Accounting Systems. The findings reveal that the banks derive financial benefits in the following areas.

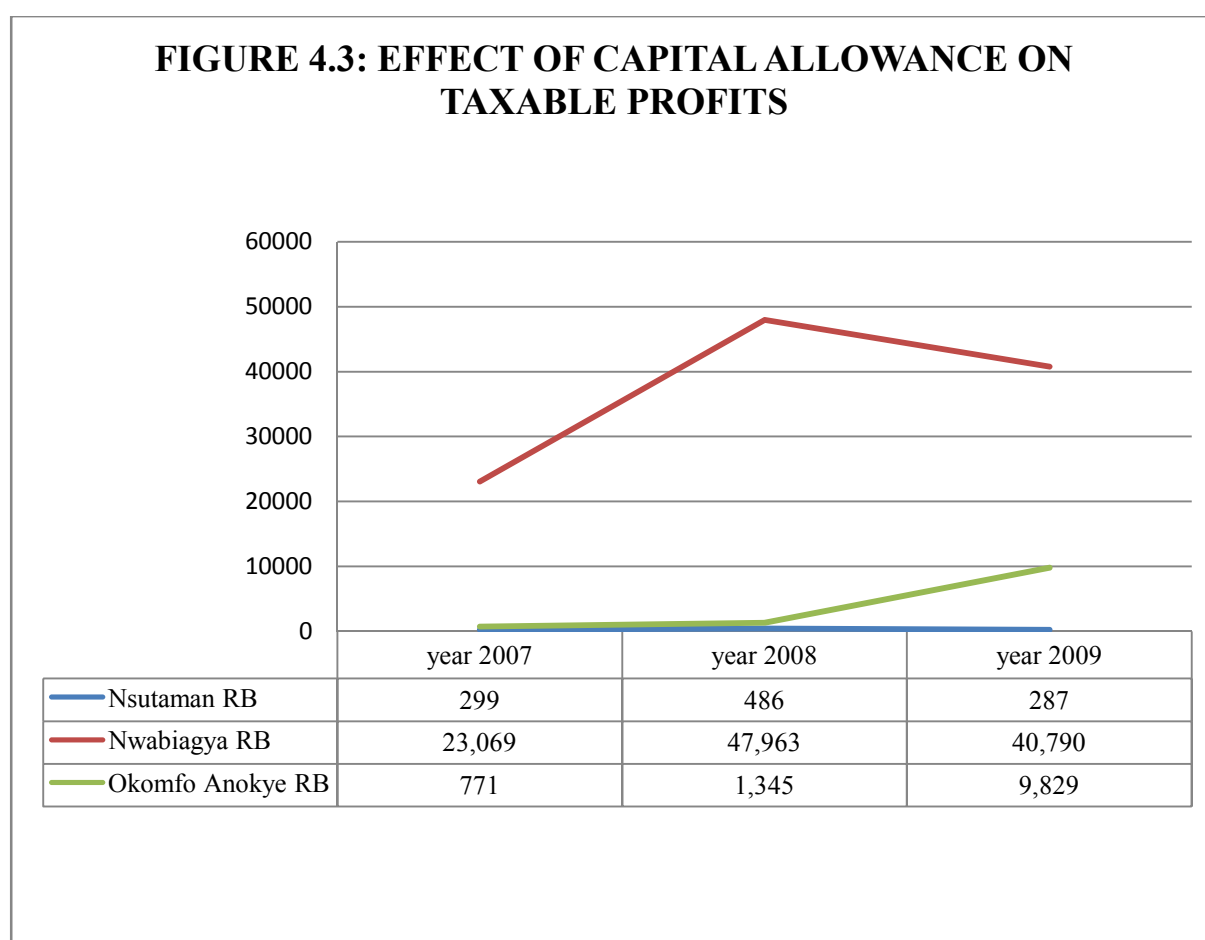
### **4.5.1 Capital Allowance**

It is the reduction in the amount of corporation tax payable, offered as an incentive for investment in large-scale projects (that increase a country's production capacity and stock of capital). A certain percentage of the capital asset's cost is allowed as capital allowance during the accounting period in which it was purchased. This amount is greater than the depreciation charge on the asset during that period (Business Dictionary, 2011).

Okomfo Anokye Rural Bank enjoyed a capital allowance of GH¢25,935 in 2009. Depreciation for the same period was GH¢16,106. Effectively, the bank's taxable income was reduced by GH¢9,829. This figure rose significantly over that of 2008, which stood at GH¢1,345 (capital allowance of GH¢4,123, depreciation, GH¢2,778). The 2008 figure appreciated marginally over that of 2007, at GH¢771 (capital allowance of GH¢2,562, depreciation, GH¢1,791).

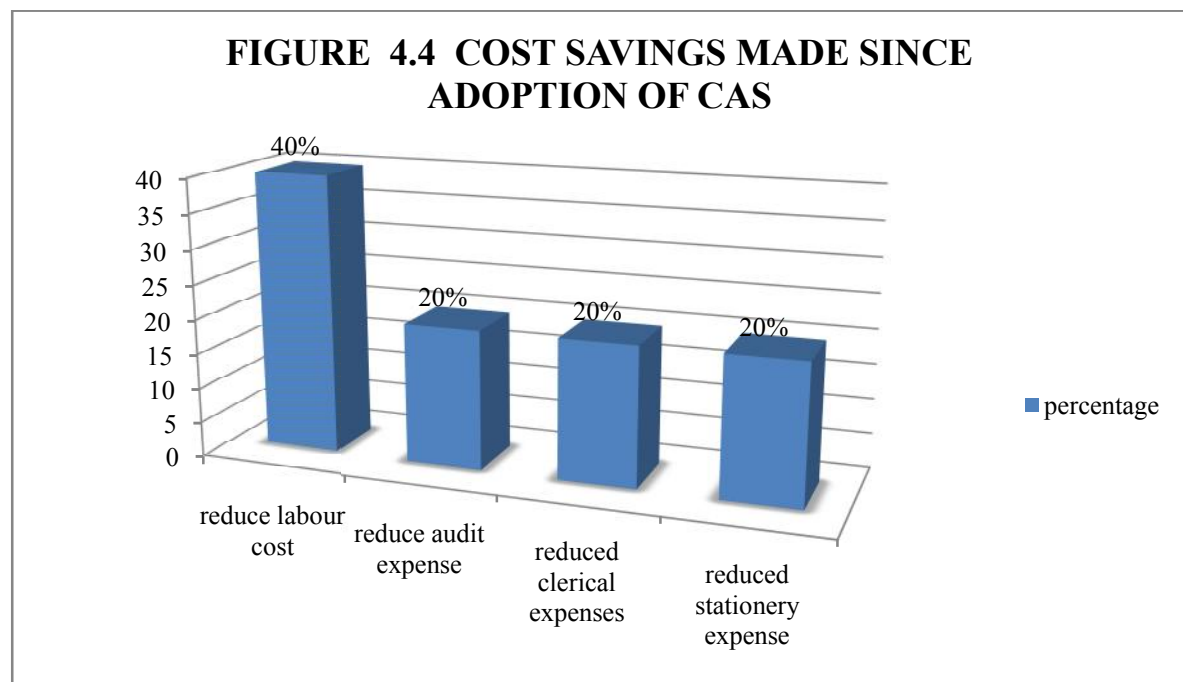
For Nwabiagya Rural Bank, 2007, the bank enjoyed a capital allowance of GH¢43,637. Depreciation for the same period was GH¢20,568. Effectively, the bank, taxable income was reduced by GH¢23,069. This figure rose significantly to GH¢47,963 in 2008 (capital allowance of GH¢74,098, and depreciation of GH¢26,135). The figure dipped a little in 2009, to GH¢40,790 (capital allowance of GH¢76,302, and depreciation of GH¢35,512).

For Nsutaman Rural Bank, 2009, the bank enjoyed a capital allowance of GH¢3,671. Depreciation for the same period was GH¢3,384. Effectively, the bank's taxable income was reduced by GH¢287. This figure represents a decline in amount over the same era during 2008, where the bank effectively saved GH¢486 (capital allowance of GH¢2,894, depreciation, GH¢2,408). The 2008 figure appreciated comparatively over that of 2007 which stood at GH¢299 (capital allowance, GH¢768, depreciation, GH¢469). The analysis made above is further presented in the figure below.



**Source: Field Survey, May 2012**

#### 4.5.2 Other Cost Savings



**Source: Field Survey, May 2012**

From the questionnaire administered it was realised that the Computerised Accounting Systems adopted by Nwabiagya and Okomfo Anokye Rural Bank helped them reduce labour cost, audit, clerical and stationery expenses. As shown in the diagram above the labour cost savings that these two banks made from the usage of CAS is pecked at 40% and the rest being cost savings from audit, clerical and stationery expenses were pecked at 20%. Interestingly, Baren (2010) made this assertion that adoption of CAS leads to cost savings by the organisation. However, an analysis of the financial statements made available to us by the banks spanning from 2007 to 2009 accounting periods did not clearly support this assertion, as the absolute figures were increasing annually.

Using the year of computerisation as the basis year for comparison thus 2007 for Nwabiagya Rural Bank and 2009 for Okomfo Anokye Rural Bank, ratios were therefore computed to ascertain the percentage changes as follows;

#### **4.5.2.1 Reduction in Labour Cost**

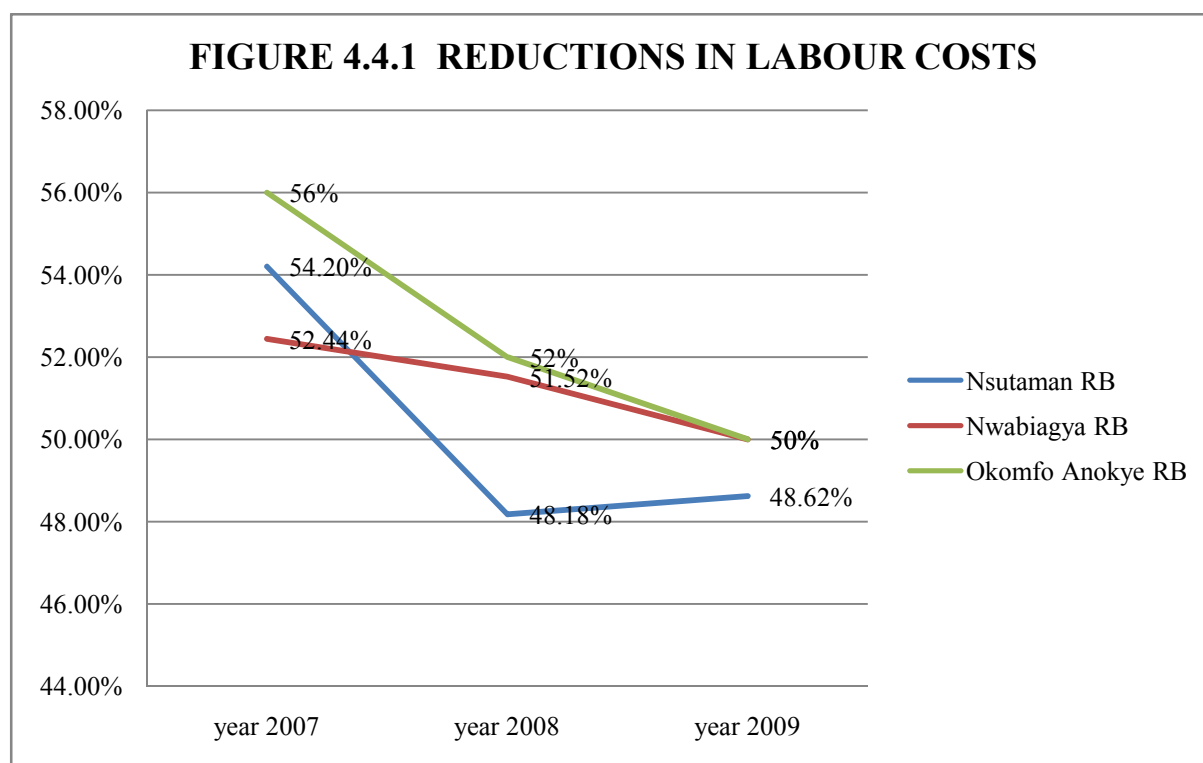
Labour cost represents the major cost item in the operating expenses of banks. The premise established was to compare salaries and wages to operating expenses, and general staff costs with operating expenses.

Okomfo Anokye Rural Bank, in 2009, salaries and wages formed 32% of total operating expenses, whereas general staff cost formed 50% of total operating expenses. These figures show a downward trend from the previous years as depicted by the 2008, 2007 figures. In 2008, salaries and wages constituted 36% with staff cost at 52% of operating expenses. In 2007, salaries and wages constituted 39% with staff cost at 56%.

Nwabiagya Rural Bank, in 2007, salaries and wages formed 31.62% of total operating expenses, whereas general staff cost formed 52.44% of total operating expenses. These figures declined in 2008. In 2008, salaries and wages constituted 30.91% with staff cost at 51.52% of operating expenses. There were further reductions in 2009 as staff cost formed 50% of operating expenses with salaries making up 28.72% of the operating cost.

Nsutaman Rural Bank, in 2007, salaries and wages formed 30.55% of total operating expenses, whereas general staff cost formed 54.2% of total operating expenses. These figures reduced in 2008. In 2008, salaries and wages constituted 27.62% with staff cost at 48.18% of

operating expenses. These figures however etched up to 28.67% and 48.61% for salaries and staff cost respectively. This analysis is presented in the diagram below.



**Source: Field Survey, May 2012**

#### 4.5.2.2 Reduction in Audit Expenses

The premise established was to compare audit expense with operating expenses.

Okomfo Anokye Rural Bank, in 2007 audit expenses formed 0.79% of total operating expenses; this figure reduced in 2008 to 0.57% but inched up to 0.66% in 2009.

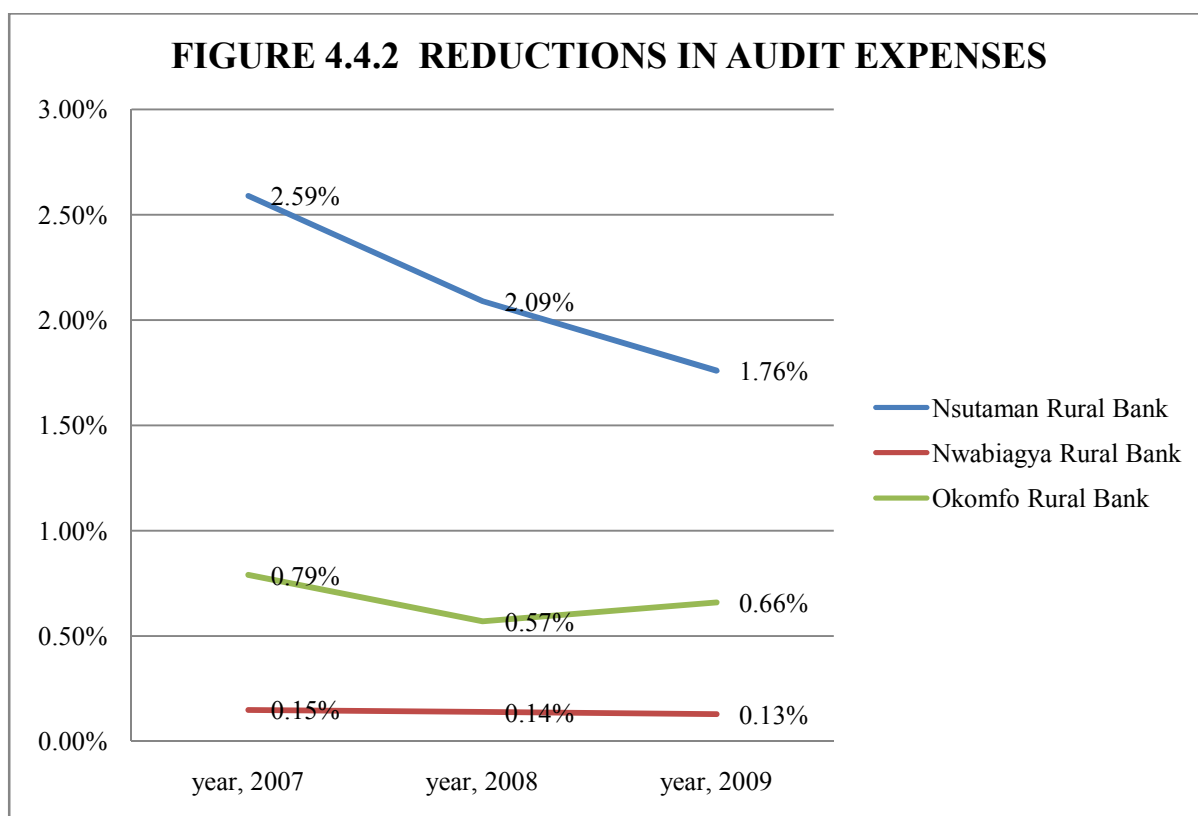
Nwabiagya Rural Bank, in 2007 audit expenses formed 0.15% of total operating expenses. In 2008 it decreased to 0.14%; and declined further to 0.13% in 2009.

Nsutaman Rural Bank, in 2007 audit expenses formed 2.59% of total operating expenses, this figure reduced to 2.09% in 2008. In 2009 the figure reduced further to 1.76%.

A comparative analysis of the trend that audit expenses took from 2007 to 2009 accounting periods of the three banks reveals that Nwabiagya Rural bank which has fully computerised and networked all eight branches is charged a lesser audit expense relative to Okomfo Anokye Rural Bank which has also fully computerised all its six branches but not networked and Nsutaman Rural Bank which has partially computerised its two branches, by the same audit firm.

The absolute figures from the face of their financial statements showed that in 2007 to 2008 Nwabiagya Rural bank paid GH¢1,725, GH¢2,288 and GH¢3,105 respectively. In the case of Okomfo Anokye Rural Bank from 2007 to 2009 audit expense charged were GH¢ 1,650, GH¢ 2,1823 and GH¢3,450 respectively, whereas, that of Nsutaman for the three year period were GH¢1,495, GH¢1,719 and GH¢2,300 respectively. It is clearly evident that the difference between the audit expenses borne by these banks is very marginal irrespective of the number of branches held by them. This is in support of the fact that Computerised Accounting Systems helps businesses to improve upon their financial reporting as well as reduce errors hence reduction in the audit time as well as the charge. This analysis is further presented in the diagram below.





**Source: Field Survey, May 2012**

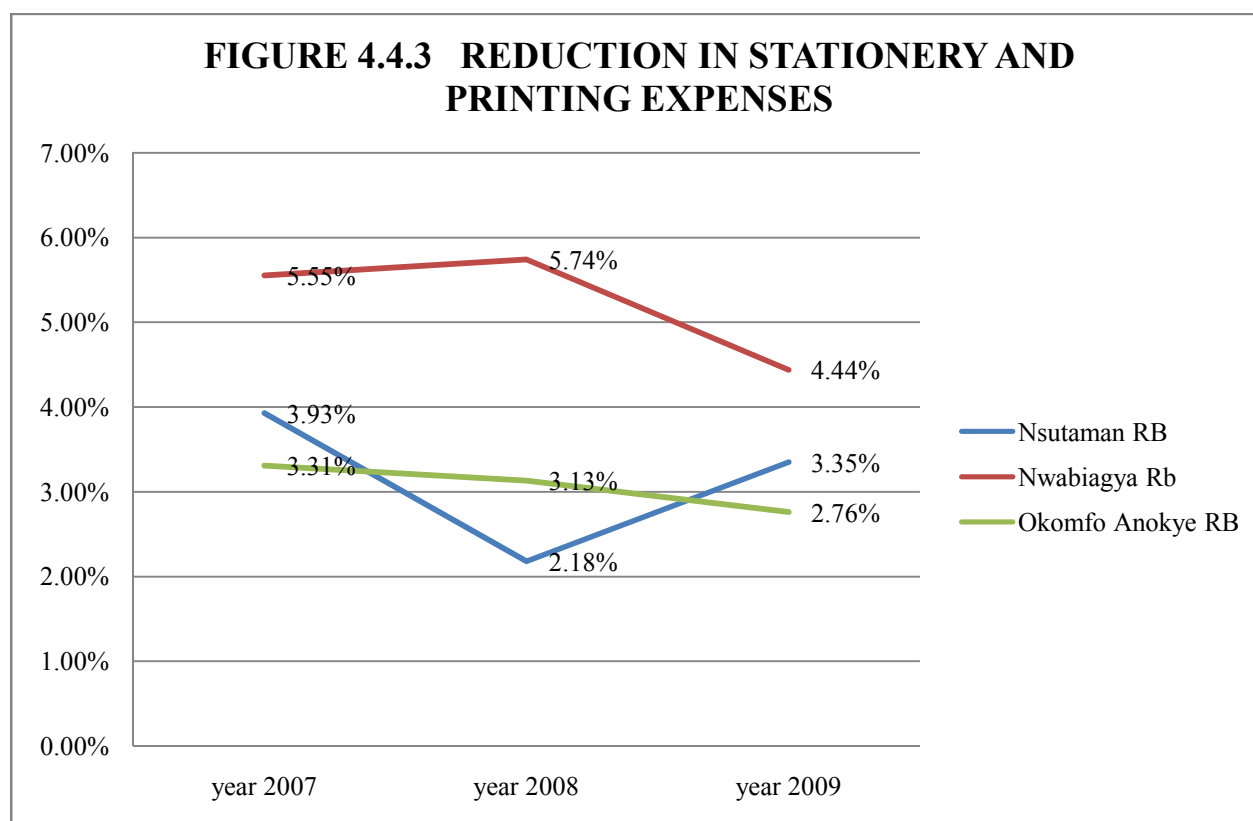
#### **4.5.2.3 Reduction in Stationery and Clerical Expenses**

Stationery and printing expenses was compared with operating expenses.

For Okomfo Anokye Rural Bank, in 2009 stationery and printing expenses constituted 2.76% of total operating expenses; this figure saw an upward increment in 2008 and 2007 which was 3.13% and 3.31% respectively.

In the case of Nwabiagya Rural Bank, in 2007 stationery and printing expenses formed 5.55% of total operating expenses. In 2008 it increased marginally to 5.74%. The stationery expenses fell to 4.44% in 2009.

Nsutaman Rural Bank, in 2007 stationery and printing expenses was 3.93% of the total operating expenses. This figure reduced in to 2.18% 2008 and increased to 3.35% in 2009. The analysis is further depicted in the figure below.

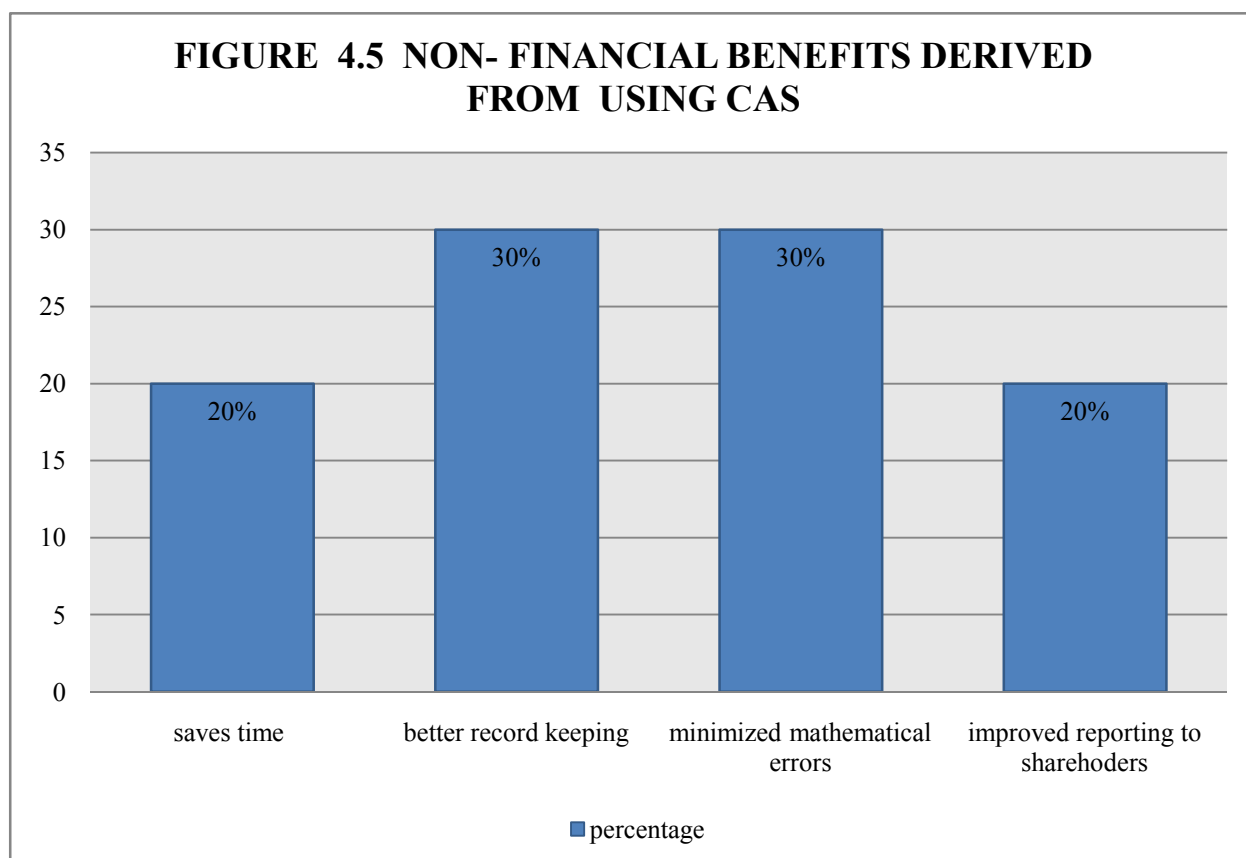


**Source: Field Survey, May 2012**

#### **4.6 NON - FINANCIAL BENEFITS**

Having discussed the financial benefits derived by the banks for using CAS it is imperative to consider the non-financial benefits that these banks gain. As depicted in the diagram below, the non-financial benefits include: time saving, better record keeping, minimizing mathematical errors and an improved financial reportage to stakeholders. From the banks point of view on a scale of 100%, time saving and improved reportage to stakeholder attracted 20% respectively of the entire non-financial benefit that can be attributed to the CAS usage while 30% of this benefit was assigned to better record keeping and minimization

of mathematical errors each. This confirms the literature of Baren (2010) who outline the benefits of CAS to include; time and cost saving, organisation and accuracy and speed and storage.



**Source: Field Survey, May 2012**

#### **4.6.1 Time – Saving**

Per the operational manual for rural banks (1985), rural banks are to make available to the Bank of Ghana a report on their returns on weekly basis which shall be presented before the beginning of the following week, and on monthly and quarterly basis within 21 days of the end of the period. An annual account is also to be presented within 90 days at the year end to shareholders. Meeting the deadline for the reporting on their returns as per the Bank of Ghana

requirements for banks was a major challenge for the banks under the manual accounting system.

The CAS has reduced the time involved for Nwabiagya and Okomfo Anokye Rural Banks. Thus the banks are able to generate the required information by the “click of button” to report on time. Reporting on time enables these banks to indirectly save any fines that may be attracted by late reporting.

Nsutaman Rural Bank on the other hand has to meet these deadlines by working overtime to produce the report on time and at times have to reduce banking hours to meet the requirements. Undoubtedly, the two fully computerised banks are able to save time for banking hours as well as overtime hours which would have been used for the timely returns preparation and the annual reports.

#### **4.6.2 Improve Reporting to Stakeholders**

The key responsibility of the managers of every organization is rendering account to the owners. This accountability is done by the banks through presenting of annual reports to the shareholders. With the use of Computerised Accounting Systems the banks are able to generate and present better reports to their shareholders. Unlike the manual accounting systems, the CAS is able to reduce errors, eliminate duplicate work as well, and consolidate monthly financial statements into an annual report. Moreover stakeholders perceived report of computerised firms as more reliable than non computerised firms. Therefore stakeholders such as Internal Revenue Service, Security and Exchange Commission, Bank of Ghana, Shareholders etc, are able to rely on the reports of this Rural Banks to a large extent on the accounting information they generate.

#### **4.6.3 Better Record Keeping**

Record keeping is one of the most important things in an organisation. This is because records (accounting data) are usually kept for the following reasons. It serves as a source for future reference. Moreover, records kept serve as point for comparison between the past and the present. A Computerised Accounting System thus provides the best alternative for keeping accounting data. With a Computerised Accounting System, accounting data can be stored for a longer period without any loss in the data stored. This data stored could also be retrieved just by a click.

#### **4.6.4 Minimized Mathematical Errors**

Errors were a common phenomenon in the manual accounting system. These errors ranged from casting errors (undercast and overcast), typographical errors, omission, error of principle, illegible hand writing among others. These errors posed a great deal of problems mathematically on financial statements. The advent of CAS has greatly reduced these errors which might have led to losses and wrong computation of revenue and expenses. It is for these reasons that the respondents who use CAS attributed a higher proportion of their non-financial benefits to the use of CAS.

## **4.7 PROBLEMS OF USING A COMPUTERISED ACCOUNTING SYSTEM**

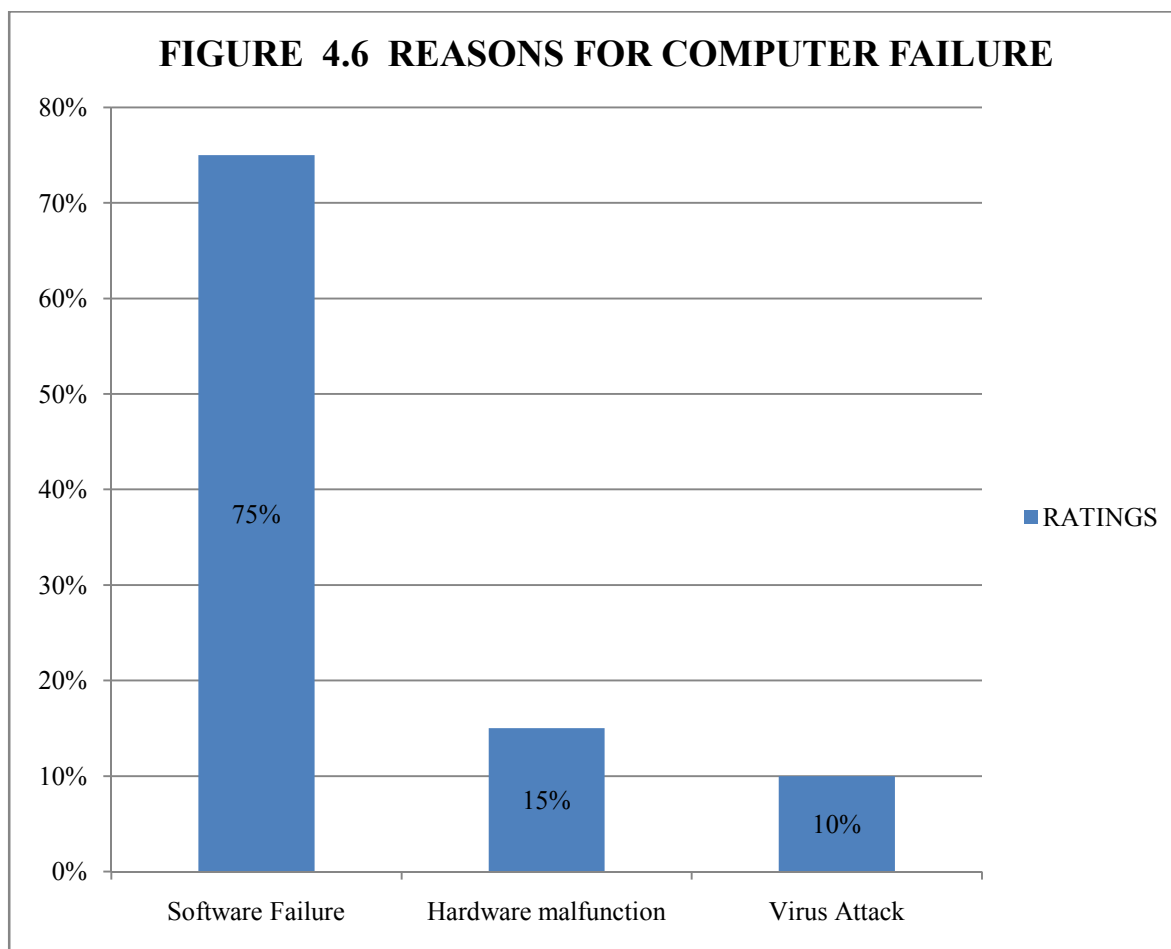
The problems that arise from the use of Computerised Accounting Systems are discussed under two sub-headings under this section. Thus, the failure of the computer itself and challenges in relation with the accounting system.

### **4.7.1 COMPUTER FAILURE**

The use of a Computerised Accounting System comes along with its own set of problems. The software is run on a computer and apart from the probability of the software itself failing, the computer as an electronic device may also have its own limitations. One major problem is computer failure.

“Sorry, the system is down ...” and “Oops, try again later...” are some of the common phrases usually associated with the use of a Computerised Accounting System. A Computerised Accounting System mostly makes use of a computer, meaning the success or failure of a Computerised Accounting System depends largely on the computer. However, these computers could fail due to reasons such as hardware malfunctions, software failures and virus attack. However, from the interview conducted, the most common reasons for computer failure were software failure, hardware malfunction and then virus attack.

When asked to rank them in order of the most challenging; software failure was ranked 75% as the most challenging followed by hardware malfunction and then, virus attack ranked 15% and 10% respectively. This is illustrated in figure 4.6.



**Source: Field Survey, May 2012**

#### **4.7.1.1 Software Failures**

Software failure usually occurs when there are mistakes in the program coding or specification of accounting software. This may lead to the data being corrupted or financial losses. These mistakes are referred to as bugs. For instance, the bank usually outsources its accounting software system development and so if the vendor is not able to develop the accounting software as required by the bank for its operations, it leads to the software being a failure. The extent to which the software has been damaged would determine whether the software has to be changed or not.

#### **4.7.1.2 Hardware Malfunction**

Hardware malfunctions if not checked properly could lead to several problems such as the accounting data (files) being corrupted and also, computer crashes (the computer locks up and ceases to function). Hardware malfunction can occur when companies acquire second hand computers due to the high cost of brand new computers.

#### **4.7.1.3 Virus Attack**

Viruses are destructive programs that are deliberately created to corrupt computers. The effects that viruses have on accounting data are: the inaccessibility of information stored on hard disk, low processing speed and inaccurate reports. To the banks, a virus attack is the least reason for their computer failure due to the fact that, they are always updating their antivirus and have other control measures in place to prevent virus attack - Nwabiagya Rural Bank has given the internet browsing access to few workers who have to use it in the performance of their assigned tasks. As such infrequent browsing of the internet reduces the incidence of virus attack.

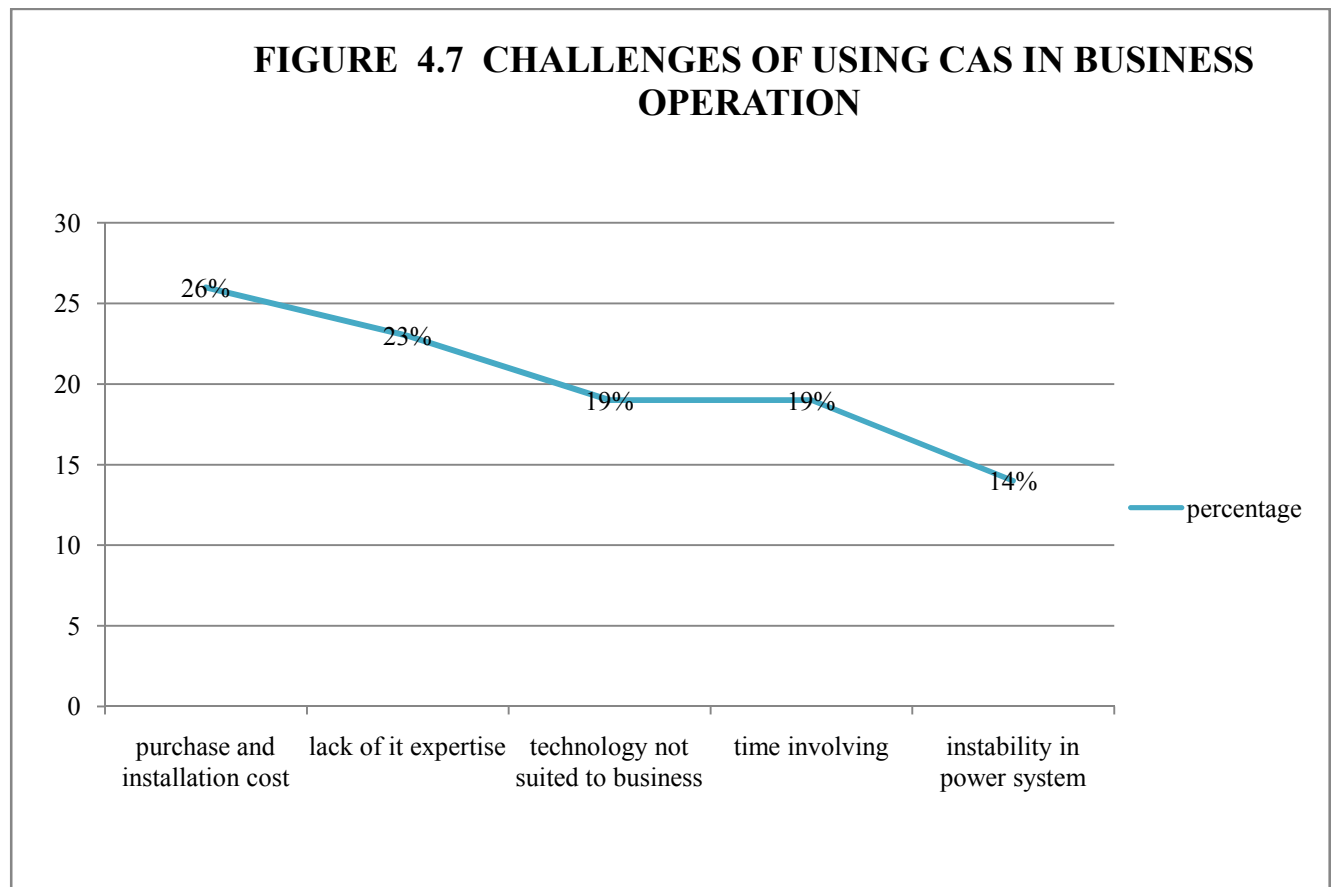
### **4.7.2 CHALLENGES OF USING ACCOUNTING SYSTEM IN BUSINESS OPERATIONS**

It was evident from the study that the main challenges facing the rural banks in their adoption of CAS were; lack of IT expertise, technology not suited to business, cost of purchase and installation, time involving and instability in power system.

In the quest to know how CAS poses a challenge to the business operations of the Rural Banks, the respondents were asked to rank these challenges in order of most challenging. Cost of purchase, installation and maintenance was ranked 26% as most challenging,



followed by lack of IT expertise ranked 23%, then technology not suited to business and time involving being ranked 19% individually and instability in power system pecked at 14% as depicted by the diagram below.



**Source: Field Survey, May 2012**

#### **4.7.2.1 High Cost**

Of all the challenges encountered by the bank in the use of a Computerised Accounting System, the most challenging was the issue of cost attributable to the whole process of computerisation. The cost involved in designing and implementing a Computerised Accounting System was very high. Computerised Accounting System involves buying equipment such as computers, accounting software and other peripherals which are expensive and even after designing and implementing it, another cost is incurred to train accountants on

the use of the accounting system plus maintenance cost of computer and computer-related devices.

#### **4.7.2.2 Lack of Information Technology Expertise**

It was realized from the study that most of the employees of the rural banks do not have strong IT skills adequate to man the CAS effectively whereas those who possess this skill have inadequate banking experience. Thus, the bank after recruiting its staff further trains them on how to use the Computerised Accounting System. Those who have enough IT skills also need enough time to understand banking operations. The training of these employees further constraints the banks in areas of cost, time, among others.

#### **4.7.2.3 Technology not Suited to Business**

Per the responses received from the respondents, the group identified that the usage of a CAS in the banks generates substantial benefits, being financial and non financial, to the banks. Despite these benefits, the issue of suitability of the CAS poses a challenge to the banks. From the cases of Nwabiagya and Okomfo Anokye, the accounting software used does not integrate their financial operations, meaning, these software lack the functionality of integration. For instance, there is lack of direct consolidation from the operations of the banks to the financial reporting requirements by the Bank of Ghana.

#### **4.7.2.4 Time Involving**

The use of a Computerised Accounting System enables a quick and fast processing of voluminous transactions. However, setting up and implementing a Computerised Accounting System is time- involving. When Computerised Accounting Systems are developed, there is the need to try them for a particular period of time (this is commonly referred to as trial and

error stage or test-run period) to see whether the accounting system is suitable for the bank's operations. This test period could last for almost a year. Thus, developing and implementing a Computerised Accounting System involves so much time.

#### **4.7.2.5 Instability in Power System**

The study revealed that all the banks have acquired generators to curtail this challenge so currently they do not consider instability in power system as great challenge as their generators automatically switch on when there is a power outage in less than ten seconds and with their backup files they are able to work without much stress.

### **4.8 COMPUTERISED ACCOUNTING SYSTEMS SECURITY**

As financial institutions have become increasingly dependent on Computerised Accounting Systems in the execution of their operations, they face the risk of their systems being compromised. This can be in the form of security breach, computer fraud, computer attacks or social engineering. The banks being pro-active have added the following security features to their Computerised Accounting Systems to help curtail these risks.

#### **4.8.1 Password**

There is no doubt that security of data is one of the key features of a good Computerised Accounting System. The CAS in used in these Rural Banks also has this feature. This requires authentication of anyone who tries to access the system. One notably unique feature of the banks is that the system prompts its users to change their password within the accounting period. While for Nwabiagya Rural this is done monthly, for Okomfo Anokye Rural Bank it is fortnightly. The system also only accepts a combination of figures, alphabets as well as symbols as the password and this should be more than six digits.

The frequent change of password and the combination features help curtail the limitations of using password as authentication control.

#### **4.8.2 Segregation of Duties**

In the banks' effort to prevent the incident of commitment and concealment of fraud among their employees, accounting duties are segregated among accounting staffs. Thus, the CAS does not allow a single person to enter data, post and authorise transaction. As control measure, the systems are designed such that while supervisors have the privilege of entering data, posting as well as authorizing transaction; those below the supervisor are given either data entering privilege or data entering and posting privilege. This ensures that all transactions are carefully checked by the supervisor before posting and authorizing the transaction. It also serves as a measure of deterring fraud commitment among employees.

#### **4.8.3 Monitor System Activities**

In order to monitor and control the Computerised Accounting Systems usage among employees, the CAS has a feature that automatically records all the systems' transactions and activities in a log. These logs are analyzed to monitor systems' activities and trace problems to their source. This analysis reveals employees who accessed the system and what specific actions each user performed. Unauthorised actions are then investigated; these actions can be in the form of attempts to post unauthorised transactions, to open accounts, to alter transactions, and an illegal entry into the system. However, it must be emphasized that parameters are set and employees whose actions exceed these parameters are queried. The monitoring of system activities to a large extent is used as a tool to evaluate employees' productivity, and to detect fraudulent activities.

#### **4.8.4 User Access Privileges**

This feature of the Computerised Accounting Systems of the banks seeks to control the access users have in other branches of the banks and the functions that they can perform in the systems of those banks. While some employees do not have access to branch systems, others are given a limited function of sight privileges, thus they can only see accounts and transactions in a branch system but cannot alter those transactions. Notable, few employees at the head offices of the rural banks have full access privileges to all the bank branches.

## **CHAPTER 5**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 INTRODUCTION**

This chapter presents the summary of major findings arising from the data analysis, makes appropriate recommendations for the effective adoption and management of Computerised Accounting Systems among rural banks in Ghana. The study is concluded at the last section of this chapter.

#### **5.2 SUMMARY**

The research was organised to assess the impact of the use of Computerised Accounting Systems in financial reporting of rural banks in Ghana. The study also had another objective of bringing out the problems encountered in the use of a Computerised Accounting System. Advancement in technology is now the order of the day. Businesses are constantly looking for cost-effective, economic and efficient ways of satisfying customers' needs. Thus, there is the need for businesses to be abreast of the current issues in technology to enhance their business. This is to help gain a competitive advantage over their competitors especially in this era where there are more banks springing up.

One of the ways to reduce cost in business processes, is to ensure that resources allocated are well utilised to obtain maximum benefits at minimum cost. Thus with the use of a resource (input) like a Computerised Accounting System, it is expected that, the accounting system will be able to generate relevant and useful reports (output) for making economic decisions by users. Computerised Accounting Systems are therefore used by these organisations in order to generate timely and accurate reports through a fast and efficient processing of accounting data.

Firstly, it was observed that, rural banks in general decide to adopt Computerised Accounting Systems due to various reasons. Such reasons included the need to be efficient and effective in the operations of the banks, the ever-growing operations of the banks, and the quest to produce more accurate and timely reports. It was evident that the single most important factor considered by the banks in their CAS adoption was the pursuit of efficiency and effectiveness in operations. This finding confirms the assertion made by Waterfield et al (1998). It is however contradictory with Raymond and Bergeron (1992) who argued that businesses implement CAS because of the advent of low cost microcomputers among other reasons.

It was further observed that, speed of a CAS served as the major factor considered before choosing a particular CAS. Other factors included: accuracy, storage, and timeliness. This confirms the assertion of Baren, 2010.

It was also observed that, there are numerous benefits both financial and non-financial which are derived from the use of a Computerised Accounting System. Amongst the non-financial benefits are: time saving, improved quality of accounting information, minimized mathematical error, improved report to stakeholders and provision of a better way of keeping accounting records. The financial benefits include reduction in tax liability by the way of enjoying capital allowance, reduction in labour cost, audit expenses, clerical expenses and stationery expenses.

However it must be emphasized that aside the capital allowance, measuring the exact reduction in labour cost, audit expenses, clerical expenses and stationery expenses from the face of the financial statement was a great challenge to this research, as the absolute values on the face of the financial statement for the three years spanning from 2007 to 2009 kept

escalating. Ratios that were also computed to ascertain the percentage changes of these expenses also did not follow a regular pattern. This led to the conclusion that the only period that these cost reductions can be accurately measured is the year in which the organisation computerised its operations. For the subsequent years these cost reductions were measured by making estimates of the cost savings made by the organisation with the introduction of the CAS.

The data analysis section provided the various problems and challenges that come handy with the use of a Computerised Accounting System. The most challenging problem was the high cost involved in the design and implementation of a Computerised Accounting System and its maintenance thereof. This confirms what Head (2000) said about cost as a challenge to Computerised Accounting Systems. Secondly there is the possibility of a computer failure which is mostly caused by a software failure, hardware malfunction and lastly, virus attack. The challenges encountered included: inadequacy in information technology expertise, the high amount of time needed at the implementation stage; the non-suitability of technology to business operation, instability in power system. This confirms the assertions of, Burgess (1997), Proudlock et al. (1999), and ABS (2000).

It is also worth noting that, training courses are organised during orientation for users on how to use the Computerised Accounting System. On the issue of safety and security of the CAS, it is only the authorised users of the accounting system who are allowed to have access to the system; additional control measures which include: logins passwords that are changed frequently, login profiles that are not shared, and audit trails which are enabled to trace usage of the system are used by the banks. These measures have all been put in place to check and control the use of the accounting system.



The findings of the study also revealed that, the rural banks used Computerised Accounting Systems to generate reports. Such reports include: trial balance, profit and loss account, balance sheet, and statement of cash flow.

### **5.3 CONCLUSION**

The study revealed that because of the numerous benefits that are associated with Computerised Accounting System more importantly its ability to produce and present relevant and faithful representative financial reports to end users, the government of Ghana is assisting all Rural Banks to migrate onto a common Computerised Accounting System known as Terminus 24 through the Millennium Development Account. This is going to serve as a platform in which all the rural banks in the country are going to be networked to each other to facilitate faster and efficient banking.

Undoubtedly, with the adoption of Computerised Accounting Systems, problems and challenges such as; high purchase, installation and maintenance cost, computer failure, inadequate information technology expertise and time involving are to be expected. However, the advantages from the use of a Computerised Accounting System far outweigh the problems and challenges as it has impacted the financial reporting of the banks positively. Hence, there is the need to adopt a Computerised Accounting System and more importantly for all rural banks to make the effort to migrate onto the Terminus 24 as it comes with added advantage of being networked with other rural banks.

## **5.4 RECOMMENDATIONS**

Based on the empirical findings of the study, the following recommendations are offered to rural banks in particular, and the players in the banking industry.

1. The government, through ARB Apex Bank should reinforce its computerisation policy for the rural banks.
2. Results of this study demonstrated that, no records have been kept that provide information on the financial benefits derived by the banks. It is therefore recommended that managements of the various banks should take appropriate measures to document the financial benefits (reduced labour cost, audit expenses, and stationery expenses) derived from the use of Computerised Accounting Systems.
3. To other rural banks who intend to adopt Computerised Accounting Systems, it is recommended that, they undertake a more detailed cost-benefits analysis so as to identify the various significant benefits that come along with Computerised Accounting Systems.
4. Software failure is a problem whose ultimate solution would be to change the software in use. However the ultimate solution would be migrate onto the Terminus 24 as it is well developed by the experts in the field to best suit banking operations and there would be constant monitoring of the system to alleviate all issues with the failure of the software.
5. Institutions that train accountant should do well to include the study of Computerised Accounting System as part of their courses to ensure that accountants are equipped with both accounting and the required Information Technology skills. In this area, it is recommended that management could enrol their employees on Business Information Technology programme.

6. The design and implementation of a Computerised Accounting System involves lot of time especially with the test period (trial and errors). Thus the best way to reduce the time involved is to test the accounting system in stages instead of having to wait and finish the whole project before testing it.
7. With the issue of cost, the best way to avoid incurring a high cost in the use of a Computerised Accounting System is to pursue a low cost leadership strategy. Here, the manager tries to increase productivity but does so with a minimum cost. For example, instead of the bank going in for brand new computers which are quite expensive, the bank could opt for slightly used computers which are equally good. On the issue of cost involved in training personnel, the bank could decide to recruit people with expertise in both accounting and Information Technology.

It is hoped that the banks and other companies wishing to adopt a Computerised Accounting System would take a look at these recommendations in order to overcome these problems and challenges to be able to enjoy the full benefits of using a Computerised Accounting System.

## **5.5 DIRECTION FOR FUTURE RESEARCH**

The study recommends the following for future empirical studies:

1. Future research should investigate the impact of Terminus 24 on the operations of rural banks.
2. Future researchers should assess the extent of networking that exists among rural banks.
3. Future research should investigate governmental support in the area of subsidising costs.

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## Appendix One

### LIST OF RURAL BANKS, ASHANTI REGION, GHANA

1. Atwima Rural Bank Ltd	Foase
2. Sekyere-Odomase Rural Bank Ltd	Sekyere-Odomase
3. Adansi Rural Bank Ltd	Fomena
4. Asokore Rural Bank Ltd	Asokore
5. Kwamaman Rural Bank Ltd	Kwaman
6. Asante Akyem Rural Bank Ltd	Juansa
7. Kumawuman Rural Bank Ltd	Kumawu
8. Akrofoom Area Rural Bank Ltd	Akrofuom
9. Ahafo Ano Premier Rural Bank Ltd	Wioso
10. Bosomtwe Rural Bank Ltd	Kuntanase
11. Okomfo Anokye Rural Bank Ltd	Wiamoase
12. Odotobiri Rural Bank Ltd	Jacabu
13. Nsutaman Rural Bank Ltd	Pakyi No.2
14. Sekyere Rural Bank Ltd	Jamasi
15. Amanano Rural Bank Ltd	Nyinahin
16. Amansie West Rural Bank Ltd	Antoakrom
17. Okomfo Anokye Rural Bank Ltd	Okomfo Anokye
18. Atwima Mponua Rural Bank Ltd	Toase
19. Nwabiagya Rural Bank Ltd	Barekese
20. Otuasekan Rural Bank Ltd	Kofiase
21. Nsutaman Rural Bank Ltd	Nsuta
22. Offinso Rural Bank	Offinso
23. Ejuraman Rural Bank	Ejura
24. Bosome- Freho Rural Bank	Nsuaem No. 2
25. Onweman Rural Banks	Onwe

## **Appendix 2**

### **CHRISTIAN SERVICE UNIVERSITY COLLEGE, KUMASI**

#### **CSUC SCHOOL OF BUSINESS**

#### **DEPARTMENT OF ACCOUNTING**

### **QUESTIONNAIRE**

#### **INTRODUCTION**

We are undertaking a study on the impact of computerized accounting software in corporate reporting. We would therefore be very grateful if you could offer us the necessary support by answering this questionnaire in the best possible means you can. We wish to assure you that the information gathered here will be used strictly for the study alone and thus kept confidentially.

#### **COMPANY'S PROFILE**

1. Name of Company:\_\_\_\_\_

2. When was the Company established?

[ ] 1-5 years ago    [ ] 6-10years    [ ] 11-15years    [ ] 16-20years

[ ] more than 20years

3. Has the company computerised its operations?

[ ] Yes            [ ] No

4. If yes move to question 10.

5. If no, how does the company capture its operations, especially in the preparation of financial statements?

[ ] Manually            [ ] Microsoft tools

6. Has your company ever considered using Computerised Accounting Systems (CAS)?

[ ] Yes                    [ ] No

If yes answer the following questions



7. What were some of the factors considered in your analysis?

Please tick as many as possible

- |                                                       |                                                  |
|-------------------------------------------------------|--------------------------------------------------|
| <input type="checkbox"/> Initial Cost of installation | <input type="checkbox"/> Acceptance by Workers   |
| <input type="checkbox"/> Cost-Benefit Analysis        | <input type="checkbox"/> Knowledge of Employees  |
| <input type="checkbox"/> Cost of training             | <input type="checkbox"/> Adaptability of Workers |
| <input type="checkbox"/> Others, please Specify_____  |                                                  |

8. Which factors prevented or are preventing your adoption of Computerised Accounting Systems (CAS)?

- ☐ Initial capital
- ☐ Cost of training
- ☐ Employees' expertise in IT
- ☐ Maintenance cost
- ☐ Security features

9. Benefits of the Manual Accounting systems

	Excellent	Very Good	Good	Poor	Very Poor
Timely Information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cost of Savings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prevention of errors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Information provision	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Effective Communication	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Security of Information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Storage of Information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Information Processing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**10.** Which of these computerised accounting systems is in use by the company?

- ☐ Tally accounting      ☐ Bestbook      ☐ Quickcash  
☐ SmartBank      ☐ Terminous emerge      ☐ Peachtree  
☐ QuickBooks  
☐ Others, please specify\_\_\_\_\_

### **COST-BENEFITS ANALYSIS**

**11.** What major factors informed the Company's decision to go in for computerized accounting system as against a manual system?

- ☐ Cost effectiveness      ☐ Accurate and timely report  
☐ Voluminous operations of the company      ☐ Efficiency and effectiveness  
☐ others, please specify\_\_\_\_\_

**12.** What is the initial installation cost of CAS? (cost of computer hardware, cost of software,

- ☐ up to GH¢10000      ☐ up to GH¢20000      ☐ up to GH¢30000  
☐ up to GH¢40000      ☐ up to GH¢50000      ☐ above GH¢50000

**13.** What is the cost of maintaining the Computerized Accounting Systems annually?

Please state GH¢\_\_\_\_\_

**14.** What cost savings have the company made since the adoption of Computerised Accounting System? Tick as many as possible

- ☐ reduced labour cost      ☐ reduced clerical expenses  
☐ reduced audit expense      ☐ other, please specify\_\_\_\_\_

**15.** What other non-financial benefits accrue to the company? Tick as many as possible

- ☐ Saves time      ☐ Better record keeping      ☐ Improved reporting to shareholders  
☐ Better storage capacity      ☐ Minimized mathematical and arithmetic errors

**16. Which single important factor did the company consider before choosing the CAS?**

☐ cost savings   ☐ ease of use   ☐ speed   ☐ storage   ☐ accuracy

**17. Which of the following reports does your Computerized Accounting System provide;**

**Please Tick as many as Possible**

[ ] Trial Balance

[ ] Cash flow Statement

[ ] Income Statement

## [ ] Budget and Variance analysis

[ ] Balance Sheet

[ ] VAT Returns

## [ ] Payroll Analysis

## [ ] Break-even Analysis

[ ] others, please specify\_\_\_\_\_

**Please use these set of ratings to answer the questions below**

**1. Strongly Agree. 2. Agree 3. Not Sure 4. Disagree 5. Strongly Disagree**

**18.** To what extent do you agree that your choice of a Computerized Accounting System (CAS) was motivated by the following factors?

1    2    3    4    5

## The need to facilitate financial management

[ ] [ ] [ ] [ ] [ ]

## The positive impact of CAS on business performance

[[ ] [[ ] [[ ] [[ ] [[ ]

The introduction of low cost computers

[[ ] [[ ] [[ ] [[ ] [[ ]

The accounting systems are user friendly

$\left[ \begin{array}{c} 1 \\ 0 \end{array} \right] \quad \left[ \begin{array}{c} 1 \\ 0 \end{array} \right] \quad \left[ \begin{array}{c} 1 \\ 0 \end{array} \right] \quad \left[ \begin{array}{c} 1 \\ 0 \end{array} \right] \quad \left[ \begin{array}{c} 1 \\ 0 \end{array} \right]$

19. Using the scale below, to what extent has CAS posed challenges to your operations.

1- Highly Challenging 2- Challenging 3-Not sure 4- Not challenging

5- Highly not challenging

	1	2	3	4	5
Lack of IT expertise	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Technology not suited to business	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cost of purchase and implementation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Time involving	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Instability in power system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## REPORTING

20. Does the company report financial information to the public?

☐ Yes ☐ No

21. Through what means do the company make the report available to the public?

☐ At shareholders meeting ☐ People can pick it up from the company's premises

☐ People can access the report through the company's website on the internet

☐ Others, please specify \_\_\_\_\_

22. How long does it take the company to report financial information to stakeholders under the manual accounting system after the accounting period or during the period of reporting?

☐ within one month ☐ within two months ☐ three months

☐ above three months

23. Which problems did you encounter as a result of this reportage (manual) system?

☐ complaints from stakeholders about the late delivery of financial statements

☐ complaints about loads of errors in the financial statements

☐ others, please specify \_\_\_\_\_

**24.** How has the adoption of computerised accounting systems helped to minimise these problems? **Please Tick as many as Possible**

- ☐ timely delivery of financial statements
- ☐ provision of error-free financial statements
- ☐ creation of other avenues to access financial information
- ☐ others, please specify \_\_\_\_\_

### **COMPUTERISED ACCOUNTING SYSTEMS SECURITY**

**25.** Are training programs organized for the accounting staff on how to operate these software packages?

- ☐ Yes      ☐ No

**26.** If Yes, How often does this training take place?

- ☐ Monthly    ☐ Quarterly    ☐ Semi-annually    ☐ Yearly
- ☐ others, please specify \_\_\_\_\_

**27.** Who has access to the use of the accounting software?

- ☐ Only the authorized users    ☐ All the company's staff
- ☐ others please specify \_\_\_\_\_

**28.** Is the computer on which the accounting software installed used for any other purposes apart from processing accounting data?

- ☐ Yes      ☐ No

**29.** If yes, what are the other purposes the computer is used for?

- I. \_\_\_\_\_
- II. \_\_\_\_\_
- III. \_\_\_\_\_
- IV. \_\_\_\_\_

**30.** Does the company have any laid down control measures as to who has access to the software and information on the computer?

☐ Yes

☐ No

**31.** If yes, could you please outline some of the control measures?

I. \_\_\_\_\_

II. \_\_\_\_\_

III. \_\_\_\_\_

IV. \_\_\_\_\_

## **Appendix 3**

### **SEMI - STRUCTURED INTERVIEW**

1) When did the company computerise its systems?

2) THE SOFTWARE:

General overview of the software

- i. Author of the software
- ii. Is it integrated with the bank's operations, e.g., the operations of the teller are captured as and when they occur.
- iii. How does it actually function?
- iv. Can the CAS provide reports such as the trial balance, budget and variance analysis, VAT Returns, payroll analysis?
- v. Any limitations on the performance of the CAS?

3) COST-BENEFIT ANALYSIS

- i. composition of the cost of the CAS
- ii. Breakdown of the maintenance cost and do u have any better ways to bring the figure down

4) Which single important factor did the company consider before choosing the CAS?

[ ] cost savings [ ] ease of use [ ] speed [ ] storage [ ] accuracy

Clarity is needed with respect to the above question; the answers we had were all the options other than ease of use. Could you be more specific on the single most important factor?

5) Under the CAS, how long does it take the bank to report financial statements?

6) Could you please elaborate on the internet security platforms in place?

More so, what goes into these activities: documents creation, spreadsheet usage?

Any software control measures in place?

## Appendix 4

### COST-BENEFITS ANALYSIS

#### 1. CAPITAL ALLOWANCE

##### NSUTAMAN RURAL BANK

	2007	2008	2009
	GH¢	GH¢	GH¢
Cost of Computers per the balance sheet	1920	8002	12,072
Capital allowance b/d	-	(768)	(2,894)
Capital allowance for the period: 40%	768	2,894	3,671
Depreciation charged	(469)	(2,408)	(3,384)
Net gain	299	486	287

##### NWABIAGYA RURAL BANK

	2007	2008	2009
	GH¢	GH¢	GH¢
Cost of Computers per the balance sheet	163,182	228,881	264,852
Capital allowance b/d	(54,089)	(43,637)	(74,098)
Capital allowance for the period: 40%	43,637	74,098	76,302
Depreciation charged	(20,568)	(26,135)	(35,512)
Net gain	23,069	47,963	40,790

##### OKOMFO ANOKYE RURAL BANK

	2007	2008	2009
	GH¢	GH¢	GH¢
Cost of Computers per the balance sheet	6,404	12,869	68,960
Capital allowance b/d	-	(2,562)	(4,123)
Capital allowance for the period: 40%	2,562	4,123	25,935
Depreciation charged	(1,791)	(2,778)	(16,106)
Net gain	771	1,345	9,829



## **2. REDUCTION IN AUDIT EXPENSES**

### **NSUTAMAN RURAL BANK**

	2007	2008	2009
Audit fees and expenses	2,397	2,887	3,048
Operating expenses	92,412	138,405	173,171
Audit cost/operating expenses	2.59%	2.09%	1.76%

### **NWABIAGYA RURAL BANK**

	2007	2008	2009
Audit fees and expenses	1,984	2,588	3,105
Operating expenses	1,349,654	1,821,223	2,313,083
Audit cost/operating expenses	0.15%	0.14%	0.13%

### **OKOMFO ANOKYE RURAL BANK**

	2007	2008	2009
Audit fees and expenses	2,818	3,101	5,084
Operating expenses	358,108	540,620	774,541
Audit cost/operating expenses	0.79%	0.57%	0.66%

## **3. REDUCTION IN LABOUR COST**

### **NSUTAMAN RURAL BANK**

	2007	2008	2009
Staff cost	50,086	66,684	84,192
Salaries and wages	28,236	38,227	49,641
Operating expenses	92,412	138,405	173,171
Staff cost/operating expenses	54.2%	48.18%	48.62%
Salaries/operating expenses	30.55%	27.62%	28.67%

**NWABIAGYA RURAL BANK**

	2007	2008	2009
Staff cost	707,814	938,334	1,156,574
Salaries and wages	426,811	563,029	664,291
Operating expenses	1,349,654	1,821,223	2,313,083
Staff cost/operating expenses	52.44%	51.52%	50%
Salaries/operating expenses	31.62%	30.91%	28.72%

**4. REDUCTION IN STATIONERY AND PRINTING EXPENSES**

	2007	2008	2009
NSUTAMAN RURAL BANK	3.93%	2.18%	3.35%
NWABIAGYA RURAL BANK	5.55%	5.74%	4.44%
OKOMFO ANOKYE RURAL BANK	3.31%	3.13%	2.76%

## **Appendix 5**

### **LIST OF ABBREVIATIONS**

CAS	Computerised Accounting System
RCBs	Rural and Community Banks
ARB Apex Bank	Association of Rural Banks Apex Bank, Ghana
MiDA	Millennium Development Account
IAS	International Accounting Standards
IFRS	International Financial Reporting Standards
IT	Information Technology