# Assessment of The Role of Computerized Accounting System on Efffectiveness of Financial Performance of Banks In Tanzania. A Case of Crdb And TCB Banks At Iringa Municipality

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Abstract: The research topic of this study is "The Assessment of the role of Computerized Accounting System on Tanzanian banks" - A case study of the CRDB and TCB bank at Iringa municipality. The purpose is to know whether the application of Computerized Accounting System supersedes that of manual Accounting System and that if computerized Accounting System enhances higher turnover and profitability, and also whether a computerized accounting system is an effective means of keeping accounting records. The study's population is 200 persons who are the members of staffs of the two (2) selected banks at Iringa municipality. Using the Taro Yamane's formula the sample size calculated gave (60). The formulated hypotheses were tested using the analysis of variance (ANOVA) statistical technique at 5% level of significance. The researcher also made use of primary methods of data collection which included questionnaire. The findings of the study revealed that (i) Easy accessibility of financial information is statistically significantly related to effectiveness of financial performance of banks, (ii) Increased speed of transaction is statistically significantly related to effectiveness of financial performance of banks and (iii) Installation cost of computerized accounting system is statistically significantly related to effectiveness of financial performance of banks. The study concluded that the advantages of a Computerized 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 banks to adopt a Computerized Accounting System. Based on these, the study recommended that the bank should channel most of their resources in the training and development of bankers and Accountants personnel in computerized accounting system related technology such as I.C.T to boost performance in their banking operations and their personnel. Also due to the widespread of computer trends and its dynamics nature, it is recommended that banks who are still battling with manual system should adopt specifically the Computerized Accounting System.

# Keywords—computerized accounting, effectiveness of bank, financial efficiency, compliance, customer satisfaction.

#### INTRODUCTION

The banking sector is a vital component of any country's financial system. It plays a fundamental role in the allocation of financial resources, facilitating economic growth and development [1]. Banks and financial institutions have relied on manual and paper-based accounting systems. However, with technological advancements, the adoption of computerized accounting systems has become a standard practice to enhance efficiency and accuracy [2].

Computerized accounting systems refer to the use of specialized software and technology for recording financial transactions, maintaining financial records, and generating financial reports [3, 4]. These systems automate many accounting processes, reducing errors and saving time. The advancement of computer technology sparked a surge in the development of information storage and processing. As a result, the topic of computerized accounting systems has garnered attention from researchers worldwide [5, 6]. This interest can be attributed to the significant role that accounting information plays in the success of any business. Adequate and

timely accounting information that is reliable, accurate, and relevant is essential for corporate enterprises to function effectively. Therefore, a manager's ability to efficiently and effectively use available resources depends largely on the quality of accounting information at their disposal and the use of computerized accounting systems particularly enhances this quality of accounting information [7].

The financial performance of banks is a multifaceted concept that encompasses various metrics. Key metrics include profitability, liquidity, asset quality, capital adequacy, and efficiency. Maintaining strong financial performance is crucial for ensuring the stability and sustainability of banks [8-10]. Corporate organizations are no longer solely focused on profit maximization. They have expanded their objectives to include a range of goals: Gaining a competitive advantage, sustainability, which often includes considerations for environmental and social impact, navigating and surviving turbulent environments, which may involve adapting to changes and disruptions, prioritizing customer satisfaction to build strong relationships and loyalty and effective decision-making, which is vital for addressing complex and dynamic business challenges [11].

Technology plays a crucial role in helping organizations achieve their objectives. Computerized Accounting Systems CAS is a fundamental technology system in financial institutions and corporate organizations, it is used for various purposes, including corporate reporting, facilitating decision-making, and automating business operations [12]. Technological advancements have led to the introduction and integration of CAS in corporate reporting, and therefore it is a fundamental technology system in financial institutions and corporate organizations. It is used for various purposes, including corporate reporting, facilitating decision-making, and automating business operations [13]. CAS provides greater visibility into day-to-day business operations, it offers access to vital information automatically and it can handle large volumes of transactions with speed and efficiency [13].

Anaeli [14], consider CAS as the 'engine of growth' in business organizations due to its many advantages, it is essential for processing goods and services, facilitating payments, and enabling cash transfers for business activities. Despite the advantages of CAS, some businesses have not fully integrated advanced CAS into their daily operations, this lack of integration has resulted in various issues that need to be addressed [15, 16].

This study is potential to provide insights and recommendations that can benefit the banking sector, regulators, policymakers, and researchers. It can address crucial aspects of efficiency, compliance, risk management, and customer satisfaction, ultimately contributing to the overall financial stability and development of Tanzania.

## **Review of related literature**

Kingi [17], defines a computerized accounting system as an organized procedure that uses computers or automated devices to collect, record, and interpret accounting data. This system helps in processing financial transactions, creating necessary documents, and journalizing financial records to generate accurate financial statements. The primary goal is to produce reliable and timely financial information, as well as to provide information for decision-making

The primary purpose of a computerized accounting system, as outlined in the literature, is to produce reliable and accurate financial information. This information is generated in a timely manner, ensuring that financial statements are up-to-date. Additionally, the system should provide relevant information for decision-making.

The literature review sets the stage for the study by emphasizing the importance of computerized accounting systems in collecting, processing, and interpreting financial data [18]. It underscores the critical role these systems play in producing accurate financial information and facilitating decision-making. The subsequent analysis in the study can build upon these foundations and investigate how the adoption and effective use of computerized accounting

systems impact the financial performance of companies in Tanzania.

# **Empirical studies on Computerized Accounting System**

Many studies have provided in-depth and thorough discussions on this subject, indicating the complexity and importance of the relationship between computerized accounting systems and financial performance.

The study conducted by [19] focused on investigating the impact of computerized accounting systems on external audit functions revealed that an auditor's knowledge of computer technology significantly affects their ability to effectively audit a computerized accounting system. This highlights the importance of auditors being well-versed in the technology and systems they are auditing. Despite the potential benefits, the effectiveness of auditing a computerized accounting system can be hindered by certain factors, these include issues related to data security, the complexity of the system, or challenges in accessing and verifying electronic records. The findings of this study emphasize the critical role of auditors' technology proficiency and awareness of computerized accounting systems. It also highlights the need to address potential limitations and challenges that auditors may encounter when auditing computerized financial systems. In the context of this study these findings may be relevant as they suggest that the effectiveness of such systems, and consequently their influence on financial performance, could be influenced by factors related to the audit process and the expertise of auditors. This is an aspect that are further explored in this study.

Masanja [20], assessed the impact of computerized accounting system usage on organizational performance, specifically focusing on local government authorities (LGAs) in Arusha, Tanzania. The study found that the usage of computerized accounting systems has an impact on the performance of local government authorities in Arusha, Tanzania. This suggests that the adoption and effective use of such systems can contribute to improved organizational performance. These findings are relevant to this study as they suggest that the performance impact of such systems could be influenced by the level of knowledge and proficiency of personnel who use them. The need for training and skill development in this area is a factor that could be considered in this study, especially as it pertains to the banking sector.

Uzomah et al. [21], examined the impact of computerized accounting systems (CAS) on the performance of Deposit Money Banks (DMBs) in Nigeria. Secondary data of the variables were collected from the FIRS annual reports and CBN statistical Bulletin for the period of 2008-2018. The multiple regression technique of estimation was employed and the stated hypotheses were tested at 5% level of significance. Findings indicate that POS and ATM transactions in the context of deposit money banks in Nigeria have varied impacts on different financial metrics. While POS

transactions appear to positively influence return on equity, their effects on return on assets and profit after tax are not statistically significant. ATM transactions, on the other hand, have a mixed impact, with a negative influence on ROE and a significant negative effect on profit after tax. These findings highlight the complexity of understanding the relationships between different transaction methods and financial performance metrics in the banking sector. The study recommend that Banks should endeavor to create more awareness on the advantages of their computerized accounting systems, pay more attention to their ATM services as it reduces their performance.

# Research Methodology

The study utilized a quantitative research approach with a descriptive-exploratory research design. The use of this mixed-method approach, which combines elements of descriptive and exploratory research, is valuable for building a comprehensive understanding of the relationship between computerized accounting systems and financial performance in Tanzanian banks. This study falls under the category of descriptive research because it aimed to provide a detailed and accurate account of a specific situation—in this case, the relationship between computerized accounting systems and financial performance in selected Tanzanian banks located in Iringa.

Descriptive research often involves using surveys, questionnaires, or other structured data collection methods. In this study the author administered a survey to gather data, which is typical in descriptive research for characterizing and describing the subject of study. Exploratory research is about uncovering new insights or understanding a topic where limited prior knowledge exists. In this study, the exploratory component aimed to determine the relationship between computerized accounting systems and financial performance of Tanzanian banks. This aspect explores whether there's a connection between these variables.

# **Population and Sampling Techniques**

The population comprises 200 employees from CRDB Bank and TCB Bank in Iringa municipality. However, due to constraints related to time and resources, it was not possible to test all 200 participants. Instead, this study focused on a specific subset of the population, namely, employees involved in accounting. This is a common and practical approach in research to make the study feasible within the limitations of time and resources. The study employed purposive and simple random sampling techniques for selecting the participants and banks for the study. Bank owners and managers are often chosen as key informants or participants in studies related to banking and finance because they possess significant expertise and experience. Their insights can be invaluable in understanding the specific issues and challenges faced by banks. The study is limited to the banks in the Iringa municipality that's CRDB and TCB that have been in operation for three or more years and these are established banks with the experience the study can track record to provide valuable insights into the financial performance and management aspects it investigates. After the purposive sampling, the study applied simple random sampling to select a subset of employees from CRDB bank and TCB bank in Iringa Municipality. This approach ensures that each employee in the chosen banks had an equal chance of being included in the study.

# **Data Analysis and Interpretation**

Descriptive and inferential statistics were applied in data analysis. Descriptive statistics were used to analyze the demographic characteristics of the research participants. This is a common and essential step in many studies to summarize and present data in a meaningful way. It helps in understanding the basic characteristics of the participants, such as their age, gender, educational background, or any other relevant factors. While inferential statistics were statistics are used to draw conclusions or make inferences about a population based on a sample, in this study multiple regression analysis was applied in making analysis of generated data from questionnaires.

# Multiple regression model

The regression equation:

Where;

Y= Effectiveness of financial performance (Dependent variable)

Independent variables are;

 $x_1$  =Easy accessibility of financial information

 $x_2$  = Increased speed of transaction

 $x_3$  = Installation cost

a = A constant

 $\alpha$  = Error term

 $b_1, b_2$  and  $b_3$  = Coefficients of independent variables

# **Data Analysis and Results**

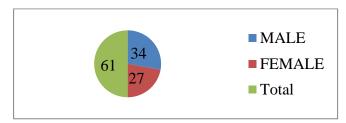
The data obtained during the research by means of questionnaires are recorded correctly and being analyzed into tables. After analysis the same data are interpreted into simple forms of percentage as responded by the respondents.

## **Information Background of Respondents**

Gender

Out of 61 respondents, 34 were males (55.7%), and 27 were females (44.3%). This uneven gender distribution can indeed suggest a potential gender bias in the hiring practices of banks in Tanzania.

Figure 1; Gender of respondents

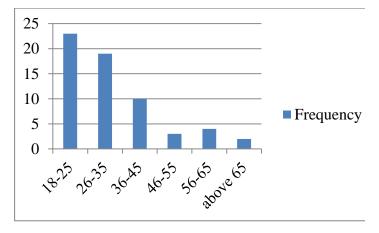


This finding highlights the importance of addressing potential gender bias in employment practices and ensuring equal opportunities for both men and women in the banking sector.

# Age of the respondents

The data related to the age of respondents in this study indicates that the majority of them fell within the 18-40 years age group, which is typically considered as the youth demographic.

Figure 2; Distribution of age of the respondents



The preference for hiring younger individuals might have implications for workforce dynamics, organizational culture, and potentially the recruitment and retention strategies employed by banks.

Majority of the respondents (4%) had secondary education while 13% had certificate, while only 24.6% had certificate. 32.8 had bachelor degree and 14.8% had master degree while only 8.2% had PhD.

**Table 1:** Education level of respondents

	Frequency	Percent	
Secondary	4	6.6	
Certificate	8	13.1	
Diploma	15	24.6	
Degree	20	32.8	
Masters	9	14.8	
PhD	5	8.2	
Total	61	100.0	

The prevalence of higher education qualifications indicates that the respondents may have a strong knowledge base in the areas of computerized accounting systems and related subjects.

## Work experience of Respondents

The data indicates that the work experience of the respondents varies. A significant portion (44.3%) has worked for less than 6 years, while another 44.3% have more extensive work experience, with over 8 years in the banking sector.

Table 2: Work experience of respondents

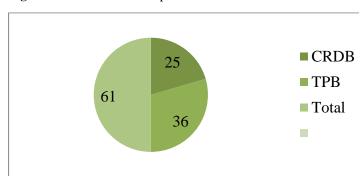
	Frequency	Percent
less than 6 years	27	44.3
Over 8 years	27	44.3
Over 12 years	7	11.5

The respondents' work experience can impact their understanding of computerized accounting systems and their related impact on financial performance. Those with longer work experience may have a deeper appreciation of the evolution of technology in the industry.

# **Bank Where Respondent Work**

According to the data, 25 of the respondents (approximately 41%) were employed by CRDB Bank. The remaining 36 respondents (approximately 59%) worked for TCB Bank.

Figure 3: Bank at which respondents work



This indicates that all banks in Tanzania employed people with adequate knowledge on Computer based accounting system.

# **Test of Hypothesis**

This study was guided by three hypotheses which were tested in order to assess whether there is relationship between dependent and independent variables. The study was guided by the following hypothesis

**Ho**<sub>1</sub>: There is no significant relationship between easy accessibility of financial information and the effectiveness of financial performance of banks in Tanzania.

**Ho2**: There is no significant relationship between computerized accounting system and effectiveness of financial performance of banks in Tanzania

**Ho3**; There is no significant relationship between installation cost of computerized systems and effectiveness of financial performance of banks in Tanzania

## **Regression Analysis**

Regression analysis is a statistical technique used to explore and quantify the relationships between dependent and independent variables. It helps the author understand how changes in one or more independent variables are associated with changes in a dependent variable.

## **Model Summary**

**Table 3:** Model Summary

Model	R	1		Std. Error of the Estimate
1	.936ª	.925	.911	2.51080

a Predictors: (Constant), Installation COST, increased speed of transaction, easy accessibility of financial information

b Dependent Variable; Effectiveness of Financial Performance.

From the first assumption which holds in a model that if R value  $\geq 0.5$  then variables in the hypothesis have strong relationship that means a model summary from the field which have a value R =0.936 <sup>a</sup> represents the multiple correlation coefficient or the correlation between the combined independent variables and the dependent variable. It indicates the strength of the relationship between the independent variables and the dependent variable. Shown there is a strong relationship between dependent and independent variables.

Table 4; ANOVAa

### **ANOVA**<sup>a</sup>

Mo	odel	Sum of Squares	df	Mean Square	F	Sig.
	Regressi on	5120.550	3	1720.850	217.9 32	.031 <sup>b</sup>
1	Residua 1	618.860	57	10.857		
	Total	5739.410	60			

a. Dependent Variable: Effectiveness of Financial Performance b. Predictors: (Constant), Installation Cost, Increased Speed of Transaction, Easy accessibility of Financial Information.

From the assumption that at 5% level of significant, the significant value (P value) in the ANOVA and coefficient regression should be  $P \le 0.05$ . The low p-value (0.031) associated with the F-statistic suggests that the regression model is statistically significant, indicating that at least one of the independent variables in the model has a significant relationship with the dependent variable, "Effectiveness of Financial Performance." This supports the notion that the independent variables collectively contribute to explaining the variation in financial performance.

Table 5; Coefficient

## Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	В	Std. Error	Beta		
1 (Constant)	23.874	1.099		7.703	.000
Easy Accessibility of Financial Information	.770	.115	110	606	.047
Increased Speed of Transaction	.847	.138	.062	.342	.034

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Installation Cost	.767	.047	190	- 1.422	.010
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Based on the coefficient table and the associated p-values, it appears that they is significant relationships between the predictor variables and the effectiveness of financial performance of banks. The coefficient table shows a p-value of 0.000 for this variable, indicating that it is highly statistically significant ( $p \le 0.000$ ).

The coefficient table shows a p-value of 0.047for the predictor "Easy Accessibility of Financial Information" and the effectiveness of financial performance in banks, which is less than the typical significance threshold of 0.05 (p  $\leq$  0.05), indicating that it is statistically significant. Also the table shows a p-value of 0.034, which is less than the typical significance threshold of 0.05 (p  $\leq$  0.05). This suggests that there is a statistically significant relationship between "Increased Speed of Transaction" and the effectiveness of financial performance in banks. Installation Cost In the coefficient table shows a p-value of 0.016, Like "Increased Speed of Transaction," this p-value is less than 0.05, indicating a statistically significant relationship between "Installation Cost" and the effectiveness of financial performance in bank.

## **Discussion of the Findings**

The findings of the study suggest several important points regarding the impact of computerized accounting systems (CAS) on banking performance, specifically in the context of availability, information security, and accessibility of financial information. The study highlights the significance of having various computerized accounting programs in the banking system. These programs are shown to facilitate optimal performance and effectiveness in various aspects of banking operations. The ability to issue reliable financial information and maintain records easily and on time is emphasized as a key benefit. This is essential for informed decision-making and overall financial management within the bank. The findings of the study align with those of [21] and emphasize the importance of easy accessibility to financial information. This accessibility is linked to improved effectiveness in performance. Easy access to financial data allows for quick retrieval of information when needed for various financial decisions and programs. This accessibility can streamline processes and contribute to the efficiency of banking operations.

The findings of this study revealed that most of respondents believed that computerized accounting system increase speed of transaction processing as well as the accuracy in work. Findings argue that computerized accounting system help a lot in generating accurate data and solve many problems associated with human error. The findings of [22], appear to align with the results of the current study regarding the benefits of computerized accounting systems, particularly in the context of Small and Medium-sized Enterprises (SMEs),

he suggests that computerized accounting systems help in generating accurate data and can alleviate problems associated with human error.

The installation costs associated with computerized accounting system is an essential element to any organization that applies computerized accounting system. The findings of this study imitates this as it shows that installation cost of computerized system is statistically significantly associated with the effective performance of banks. This result appear to align with the result of the study conducted by [23], who studied on the impact of accounting information systems on the growth of SMEs, he likely discusses the need for reasonable installation costs. This suggests that costeffectiveness is crucial for small and medium-sized enterprises (SMEs) when adopting such systems. The findings also connects the findings of [24], study to the situation at CRDB Bank and TPB Bank in Tanzania. It indicates that both of these banks are using computerized accounting systems. However, it points out that the costs associated with installing and maintaining these systems are notably high. Additionally, it mentions that computerized accounting systems require day-to-day updates and changes, indicating the dynamic nature of technology in the banking sector.

### Conclusion

The study concludes that the advantages of Computerized Accounting Systems outweigh the challenges and have positively impacted the financial performance of the banks. Consequently, there is a recommendation for businesses, particularly banks, to adopt Computerized Accounting Systems.

## Recommendation

The study recommended that the bank should channel most of their resources in the training and development of bankers and Accountants personnel in computerized accounting system related technology such as I.C.T to boost performance in their banking operations and their personnel. Also due to the widespread of computer trends and its dynamics nature, it is recommended that banks who are still battling with manual system should adopt specifically the Computerized Accounting System.

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