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**COLLEGE OF HUMANITIES AND SOCIAL SCIENCES**

**KNUST SCHOOL OF BUSINESS**

**DEPARTMENT OF ACCOUNTING AND FINANCE**

# THE IMPACT OF TREASURY MANAGEMENT ON PROFITABILITY OF SELECTED RURAL BANKS IN GHANA

**By**

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**NOVEMBER, 2023**

**DECLARATION**

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

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**ABSTRACT**

The major goal of the study is to determine how treasury management affects the profitability of rural banks in Ghana. Both a descriptive research design and a quantitative research technique were used in the study. The study's sample included 12 rural banks. Purposive sampling was utilized by the researchers to gather information from 54 workers of the chosen banks using a well-structured questionnaire. Descriptive and correlation analyses were performed on the collected main data. The purpose of the descriptive data was to gauge the extent of the banks' treasury management techniques. Multiple regression analysis was utilized by the researchers to test the study's assumptions. The findings of the descriptive statistics revealed that the most popular strategies used by banks are the liquidity management and investment strategies. The outcome of the multiple regression analysis showed that the profitability of the chosen rural banks is positively and significantly impacted by the funding strategy, liquidity management strategy, and risk management strategy. However, the profitability of the banks is not much impacted by investment strategy. According to the study's findings, treasury management has a big influence on banks' profitability; hence improving treasury management will greatly increase banks' profitability. The study recommended that the management of the banks put in place the proper internal processes to make sure that the present treasury management procedures are continually reviewed in light of the organization‘s predicted revenues and wealth maximization goals.

## DEDICATION

I dedicate this project to my family, all my friends and colleagues at work (Mumuadu Rural Bank Plc), the school of business and the administration at the Kwame Nkrumah University of Science and Technology. I have been deeply humbled by the knowledge acquired and support accorded to me during my studies at the university.



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# CHAPTER ONE

# INTRODUCTION

## 1.1 Background of the Study

The treasury department is an organization's financial hub. The essential responsibility of treasury, according to Ironkwe and Muenee (2016), is the process by which an organization ensures the security of its monetary resources while also balancing its obligations to its stakeholders. Treasury is therefore in charge of carrying out different financial choices decided upon by management and the board. Gatimu (2019) elaborated further on how important treasury management is to an organization because it involves things like managing cash, making shortterm investments, and managing the risks associated with short-term investments and liquidity. White and Taylor (2016) argue that a significant portion of the money commercial banks make accrues from managing the treasury and cash concentration and distribution services.

Ghana has a burgeoning banking industry which is quite prosperous. That notwithstanding, certain factors militate against the smooth operations of the banks. Risk exposures throughout the industry are developing treacherously, and security measures are becoming more vulnerable to breaches. Banks are for-profit institutions whose primary function is to act as intermediaries between borrowers and lenders. They do this by obtaining temporarily available resources from individuals and businesses that have excess funds and then extending these funds to individuals and institutions that have immediate needs for their businesses and/or their personal lives. According to this point of view, banks deal with money that belongs to individuals as well as other entities, and in the process of executing these intermediation functions, banks expose themselves to several financial hazards. (Atiso, Koranteng and Boakye, 2020).

Seven financial institutions failed in 2017 and 2018 before being acquired or merged. Inadequate corporate governance, poor risk management, large non-performing loans, and terrible

management have all been linked to the instability of these institutions (Torku and Laryea, 2021; Duho and Onumah, 2019).

The contemporary culture of cash management includes the responsibility of treasury management. As such, it entails accepting a variety of tasks relating to the management of organizations' monetary flows and liquidity situations, which will enhance the outcomes of the treasury department and those of the other departments (Oru and Odumusor, 2019). Treasury management, therefore, becomes a crucial component of business strategy, since it entails applying the cash management philosophy inside the treasury department. There exists a clear connection between treasury management, liquidity, and profitability. The department of the treasury is no longer regarded as only a cost center, but also a profit center. Aleksandra and Downing (2021) argue that cash and liquidity management is crucial for every substantial business. A company's profitability can be increased by better cash management. Treasurers are responsible for a wide range of tasks, including optimizing funding sources, managing investment decisions, maximizing financial returns, and facilitating various forms of risk for the company.

Nearly half of Ghana's banking institutions are located in rural areas. Moreover, they are the primary sources of banking services for the general public, especially the rural poor (Okyere, 2017). Available data from BOG reveals that rural and community banks together with savings and loans and other licensed financial institutions combined assets were GH¢16.5 billion, and GH¢17.1 billion in 2018 and 2017 respectively (Bank of Ghana, 2021). Statistics on failed financial institutions, especially microfinance institutions are rare to come by, it is clear, following the demise of several too-big-to-fail banks and non-bank financial institutions such as UT Bank, Capital Bank, The Beige Bank, _DKM', _God is Love', etc. that the entire industry is floundering. This study, therefore, examines the impact of treasury management on the profitability of selected rural banks in Ghana.

## 1.2 Statement of the Problem

The way through which the board of directors and management of commercial banks delegate financial decisions is the Treasury management policies. Treasury management practices and the financial performance of commercial banks differ based on the size of the commercial bank (Sathyamoorthi, Mapharing and Dzimiri, 2020). Effective Treasury management practices must be aligned with the commercial bank's size, financial strategy, flexibility, and financial risk limits (Uche, 2014). Studies such as Ironkwe and Muenee (2016), Kathomi, Kimani, and Kariuki (2017), and Okere, Isaka, and Ogunlowore (2018) have indicated that treasury management techniques and the financial performance of commercial banks are significantly correlated. The global financial crisis has resulted in studies on Ghana's commercial banks. Small banks like rural and community banks (RCBs) have had little inquiry into their financial performance in light of the global financial catastrophe and the Ghanaian banking crisis. Governments, regulators, academia, and civil society have focused on the financial stability of large commercial banks, whether distressed or sound (Klutse and Kiss, 2022; Osman, 2019; AmenuTekaa, 2022).

Alhassan (2017) says that the roles of rural banks and commercial banks are identical. This indicates that, other than their location, rural banks and commercial banks perform the same tasks. There have been a few studies on treasury management and financial performance of commercial banks such as Gathimi (2019) in Kenya, however, there are no studies yet on treasury management practices and profitability of rural banks. Owing to the fact that bank size correlates with the kind of treasury management practices to be adopted per Uche (2014) and Sathyamoorthi et al., (2020), it becomes necessary to also assess treasury management practices in rural banks as their bank size varies significantly from commercial banks.

### 1.3 Objectives of the Study

The primary goal of this thesis is to determine how treasury management affects the profitability of rural banks in Ghana. The following are the specific objectives that guided the study:

1. To determine the treasury management practices adopted by rural banks in Ghana.
2. To determine the effect of treasury management practices on the profitability of rural banks in Ghana.

### 1.4 Research Questions

1. What are the management practices adopted by rural banks in Ghana?
2. What is the effect of treasury management practices on the profitability of rural banks in Ghana?

### 1.5 Significance of the Study

This research adds to the existing literature on the treasury management of rural banking operations in Ghana. Consequently, the research serves as a source of literature for anyone who wants to perform a study on treasury management in the near future. The research also provides a reference for the understudy rural banks' treasury management endeavors. To comply with the obligatory rules outlined in the operating handbook for rural and community banks published by the Bank of Ghana, the research provides information on the challenges rural banks face in their treasury administration. The study's conclusions are of great benefit to finance and accounting students, policymakers in the financial industry, and the academic community as a whole. They may depend on the research's conclusions for future investigations. The Bank of Ghana may use the data to develop treasury management regulations that will aid the operations of Ghana's rural banks.

## 1.6 Scope of the Study

The purpose of this research is to determine how treasury management affects the profitability of a selection of rural banks in Ghana. Based on this, the research focused on rural banks in Ghana; more specifically, the rural banks located in the Greater Accra area would make up the population of the study.

## 1.7 Summary of Methodology

The study employed a quantitative approach with an Ex post facto design to establish probable correlations by analyzing a present condition or state of affairs and then looking back for potentially relevant aspects. The ex post facto approach of this research is judged suitable since it is non-experimental and causal links between the dependent and independent variables were investigated (Egbunike, and Okerekeoti, 2018). The goal of this design is to show the link between variables, or how one variable affects another (Shamsuddin et al., 2017).

A population may be described as encompassing all persons or stuff having the trait one desire to know. Because there is seldom enough time or money to collect information from everyone or everything in a community, the aim becomes identifying a representative sample (or subset) of that population (Mburu, 2017). The target population is the full collection of units for whom the survey data is to be utilized to conclude. It may also be described as the eligible population that is included in the study work (Mugenda and Mugenda, 2003). The study‘s population base includes all rural banks in Ghana, specifically, those in the Greater Accra region.

The study used primary data, which was gathered through questionnaires. Respondents were asked to fill out structured questionnaires that were designed to meet the study's goals. The questionnaires were made using a 5-point Likert scale, with 5 being the most agreeable and 1 being the least. The questionnaire was separated into sections A and B. The 'A' section of the questionnaire collects

demographic characteristics such as gender, age, education level, and years of service. Section B is comprised of questions that evaluate treasury management techniques. Secondary data was used to analyze the profitability of the banks.

Rural banks in Ghana are included in the survey's target population. The approach of purposive sampling is used to choose high-level managers and officers working for various rural banks to act as respondents. Due to the fact that these managers had prior experience with the matter that was the subject of the inquiry, the researcher considered it more appropriate to administer the questionnaire to them. The respondents were provided with both an explanation of the questionnaire as well as information on the objective of the survey. After that, they are given the reassurance that taking part in the survey is fully voluntary and that they have the choice to either opt-out or opt-in at any moment throughout the process.

The researcher benefitted from the explanation of the questionnaire since it will help them clarify any obscure sections of the questionnaire and survey. After then, the questionnaire is sent to each and every responder who volunteered to take part in the research voluntarily. The participants needed around eighteen (18) minutes to respond to all of the questions.

**1.8 Organization of the Study**

The study is organized into five different chapters. The first chapter discussed the background information of the study, including the issue description, goals, research questions, significance, and an overview of the methodology. The second part of the inquiry involves a review of the relevant literature that pertains to the topic that is being investigated. The methodology of the research is outlined in the third chapter. In particular, the chapter details the research design, a summary or profile of the area under investigation, the demographic group that serves as the focus of the investigation, the data source, the sample size and sampling method, the data collection instruments, and the data analysis. In addition, the presentation and interpretation of the study's

findings are presented in the fourth chapter, and the findings themselves, together with a summary, conclusion, and some recommendations outlined in the fifth chapter.



# CHAPTER TWO

# LITERATURE REVIEW

## 2.1 Introduction

This section will look at the conceptual review of treasury management and the profitability of banks. It will further deal with the various forms of theoretical theories backing the study. The researcher will also look at the empirical review backing the study objectives and the study in general and develop hypotheses based on the study objectives. Finally, the conceptual framework of the study will be developed to support the study and the summary of the chapter will be concluded.

## 2.2 Conceptual Review

Definitions, operationalization‘s, and an explanation of how the constructs were applied in this study are provided in this section. There are three main constructions in the model (Treasury Management, liquidity and profitability). The following sections made these constructions operational (see 2.2.1-2.2.3).

### 2.2.1 Concept of Treasury Management

Treasury is taken to be a word of love and a significant element in traditional settings (Polak, Nelischer, Guo and Robertson, 2020). An underground direction is depicted, leading to a candlelit room with valuable coins and art objects (Polak et al., 2020). It is not surprising that in the world of business, people think that the treasury system does not work for them, but it works for royalties and the government (Donepudi, Banu, Khan, Neogy, Asadullah and Ahmed, 2020).

Most, however, are surprised to learn that money management can apply in a big way, not just to them. In business today, treasury refers to the money of the company (Donepudi et al., 2020).

Treasury management refers to the proper use of funds (Zhou, 2014). The word treasury in finance sounds suspicious, but in reality, treasury management can be easy (Polak, 2010). Once an entity

has good asset management services, it can operate on its own (Polak, 2010). This means less work and, often, lower costs (Polak, 2010). Another way of saying high profit is low cost in treasury management (Polak, 2010). Management finance is no longer the restricted domain of large corporations that can manage to pay for internal sectors. SME companies can find inventory management tools easily and cheaply (Šarkanová, 2016). All that is required is a bank that continues to think enough to provide. The proper integration of managing treasured services can help streamline and speed up the daily operations of financial transactions (Halder, 2022).

As a result, asset or treasury management has become an integral component of the business approach, as it means implementing the ideas of capital utilisation in the asset sector (Dharmawan, 2019). This revealed the link between asset management and the concept of profit and loss. The department of treasury is no longer seen as a cost centre (Dharmawan, 2019); it has become a profit centre like any other department, which means that there is an active (Gatimu,

2019), independent and dependent view of the company‘s management practices (Gatimu, 2019). Organizations‘ finances include many functions, including account reconciliation, post ledger, foreign currency, risk management, and balance sheet (San-Jose, Iturralde and Maseda, 2008). But in addition to these and other day-to-day financial management functions, modern treasury departments perform complex functions such as revenue accounting and special reporting in response to new and changing government regulations (Bragg, 2010). Various methods are used for this. Among these tools are treasury management systems called treasury workstations (Ogiela, 2015). These are usually standalone systems or software that allows companies and their finance departments to interact and/or communicate in real-time with banking partners, suppliers, and customers. A treasury management system helps finance departments work effectively and efficiently (San-Jose et al., 2008; Ogiela, 2015).

Treasury Management represents an integrated operation of all financial matters relating to the generation of external and internal funds for the business (Panigrahi and Swain, 2018). It also reflects financial management and cash flow policies (Sathyamoorthi et al., 2020); and the planning and management of the firm's financial resources (Gathimi, 2019). Tight money, highinterest rates, and a recession call for this special financial management capability. Treasury Management includes Basic Money Management (Klutse and Kiss, 2022). In particular, Treasury Management is responsible for the actual cash management of the companies, and one of its main tasks is to ensure that the correct level of cash can be paid and received when required for the proper functioning of the association (Osman, 2019; Amenu-Tekaa, 2022). The Second Concept covers more than just managing assets per se, such as asset forecasting, negotiations and liaison with financial institutions and financial risk management (AmenuTekaa, 2022). However, financial management with money management, funds, money, banking and financial risk is an important part of financial management (Ironkwe and Muenee, 2016). This includes cash flow, position of receivables and payables, investment strategy, foreign currency transactions risk if any, other financial aspects, the profitability of the organisation‘s assets, and satisfaction of external and internal stakeholders (Torku and Laryea, 2021; Duho and Onumah, 2019).

### 2.2.2 Concepts of liquidity and profitability

Profitability can be defined as the ability of a business, in this case, a rural bank to collect more money than it pays (Awo and Akotey, 2019; Afriyie and Akotey, 2012). The ratio of capital structure and income from capital is also important for rural banks because they have low levels of capital compared to assets and are therefore sensitive to changes in financial conditions (Adusei, 2015). Higher capital means lower risk and higher returns. Looking at the characteristics of internal and external banks in estimating profits (Afriyie and Akotey, 2013), Boadi, Li and Lartey (2016)

concluded that higher capital and loan-to-asset rates lead to higher profits in the macroeconomic environment, the structure of the financial market and taxes have not changed. The study also shows that clear and transparent taxation has a negative effect on bank performance while good economic conditions affect performance (Boadi, et al., 2016). The results show a strong positive relationship between profit and surplus.

Adjeitsey (2015) found a positive relationship between investment and performance. Liquidity risk, which occurs because the bank cannot accept the reduction of debt or increase the amount in terms of assets of the financial position, is considered an important indicator of the bank's profitability (Adjeitsey, 2015). Home and corporate loan markets have higher risks and expected returns than other bank assets, such as government investments. Therefore, one expects a positive relationship between income and profit (Etu-Menson and Ato Enyamful, 2011). However, it may happen that the lower the amount of money involved in a liquid investment, the higher the return (Nagaraju and Boateng, 2018).

Also, as part of the credit, Sanusi and Zulaikha (2019) pointed out that changes in the bank's credit risk can indicate changes in the bank's loan strength that can affect the bank's performance.
The opinion of Etu-Menson et al. (2011) is also confirmed by other studies when they conclude that the difference in bank profitability is mainly due to the difference in credit risk since an increase in credit risk is often associated with a decrease in the profitability of the company. This led to a debate about not the amount, but the value of the loan. This is because high-risk lending leads to the collection of unpaid loans and reduces profits (Afriyie and Akotey, 2013; Nagaraju and Boateng, 2018).

According to Putra and Sedana (2019), liquidity refers to the bank‘s financial responsibility or ability to manage funds that will grow at a reasonable cost at all times. In other words, bank liquidity means that banks have money when they need it to meet their customers‘ needs (Sahyouni and Wang, 2018). The existence of deposit banks depends on how liquid they are because crime, a sign of future trouble, can undermine public confidence in the banking system and the consequences of deposit-based operations (Panigrahi, 2019). Liquidity resources should be sold or transferred. This means that they are expected to be easily and quickly converted into cash and redeemed before they mature. Another value of liquid assets is price stability. Based on this characteristic, bank deposits and short-term securities are more liquid than equity investments because early prices are more stable than later prices and values (Susanti and Samara, 2021).

The question of profitability is a contentious issue that the campaign has to deal with regularly. Profit is the difference between costs and income over a period of time, usually every year. As Gockov and Hristovski (2019) explain, business is a living entity; it is alive and growing. Therefore, it is important that the bank be profitable to ensure its longevity and growth. This also needs to be profitable enough to run the business in a sustainable way to provide funds to expand and expand the bank. Hapsoro and Sulistyarini (2019) indicate that corporate profit planning remains the most complex and time-consuming aspect of bank management due to the large number of variables involved in decisions, which may be beyond the bank's control. It is difficult for banks to operate in all countries in a competitive economy. According to Ali, Hussin and Ghani (2019), profitability is expressed by two alternative measures: the ratio of profit to assets, i.e., returns on assets (ROA) and return on equity (ROE) (Alvarez, Sensini and Vazquez, 2021). ROA reflects the profitability of the bank's assets, but it can be biased because it is left out. ROE reflects

the return on equity for shareholders and ROA is equal to the ratio of assets to total equity (Alvarez et al., 2021).

## 2.3 Theoretical Review

The theories are seen as important guidelines for the current study. They help the subject define the research problem. Therefore, the study is based on risk management theory and liquidity preference theory. These theories provide the basis for research on the asset management transfer process in relation to the profitability of rural banks. These facilitate the prediction of relationships between independent and dependent learning variables, thus becoming theoretical explanations. The theories presented here are discussed according to the ideas, suggestions, and criticisms the theories have presented over the years.

### 2.3.1 Risk Management Theory

The concept of risk management was introduced and developed by David (1997). The concept of risk management provides a framework for identifying, evaluating, and prioritizing risks as a combination of measures to reduce, manage, and control the impact of risks (Yoe,2020). The theory suggests that all organizations have internal and external beliefs that they may face various threats resulting from external problems. These risks include credit risk; legal liability; project failure; financial market instability; intentional attacks by competitors; disasters; and unpredictable events (Jankensgard and Kapstad, 2021). The theory of risk management indicates that there are unexpected and unreported risks that, if not managed properly, can have a negative impact on the performance and success of the company (Meng, Xiu and Qian, 2018).

Risk management deals with the process of identifying and managing risks that can harm and affect the organization (Fernández-Mellado and Vasile, 2021). Risk management aims to evaluate and prioritize uncertainty and provide the best way to deal with any uncertainty, especially when the information is about the risky behavior of decision-makers (FernándezMellado and Vasile, 2021). This allows administrators to continuously monitor their exposure, be vigilant, and be aware so they can adjust in response to changes. These risks can directly or indirectly affect the organization or the specific risk (Meng et al., 2018).

The importance of management theory in explaining risk management practices in organizations is strongly supported by Meng et al. (2018). On the other hand, Urbasky, Haque and Oeno (2019) argue that the main limitation of this theory is that it does not properly distinguish between the company's use of risk management and other factors, thus causing uncertainty. The importance of the theory in this study is to explain that all organizations, regardless of industry or type of activity, face risk and rural banks in Ghana are no different. These risks, if not adequately managed through an appropriate risk management strategy, have the potential to reduce the profitability of rural banks and the profitability of shareholders. Therefore, according to this theory, rural banks are expected to be well managed with a defined and effective asset management system. Rural banks need to make decisions based on rates where comparative advantages can be gained.

### 2.3.2 Liquidity Preference Theory

Therefore, this theory was first proposed by Keynes in 1936 and was later developed in response to various studies in various fields (Lavoie and Reissl, 2019; Culham, 2020; Asensio, 2020). The theory suggests that three main reasons have been identified for people to seek and choose poverty. These include; the purpose of the valuation is to allow the company to take advantage of unique

opportunities that can generate profits for the company, and the main purpose of the business is to provide people with money for daily operations and keep the money to spend.

Regarding security, money is reserved for unexpected events (Park and Min, 2021; Oreiro, de Paula and Heringer Machado, 2020). In agreement with this theory, liquidity management in organizations is influenced by three factors that make people want money (Park and Min, 2021). The information on the use of funds is treated in two types: popular sports rates and referral rates (Oreiro et al., 2020). These rates are used by commercial banks to pay for the lack of water (Park and Min, 2021). The main driver of financial health in the rural banking industry is the need for capital (Oreiro et al., 2020). However, this theory is not sufficient to explain how monetary policy affects the performance of rural banks. In theory, rural banks in Ghana have different levels of funding based on customers' current financial needs. The importance of this theory is that it explains why organizations and individuals choose to save money. Therefore, for rural banks to be profitable, proper liquidity management is essential to achieve cash flow balance. Arguing with this theory, sound financial management practices are important for the growth and productivity of banks in the financial sector.

**2.4 Empirical Review**

This section assessed the research on prior studies that addressed the study's objective. These include internal audit quality and financial reporting quality: the role of auditor‘s independence and competence in the public sector in Accra. Literature related to the study's goal of internal audit quality and financial reporting quality: the role of auditor‘s independence and competence in the public sector in previous and ongoing research projects was evaluated.

### 2.4.1 Treasury management practices adopted by banks

Cooper et al. (2019) performed a study that utilized the ideas of social ecology and robustness to evaluate the techniques of well-being-oriented human capital administration practices and employees in the Chinese banking industry. The information in this piece was obtained from research that was carried out in 62 banking institutions of 16 banks between 2014 and 2015 in Chengdu and Chongqing, two significant Chinese cities in the southwest. These two cities were selected due to their dense population, importance as main cities for regional growth, and robust financial sectors. Additionally, they have received less attention from previous research on performance appraisal in China, which has thus far mostly concentrated on the country's more advanced eastern provinces (Chen, Liu and Li, 2019). Utilizing organizational and interpersonal relationships, access was secured to the banking institutions to investigate the assessments. Although the offices were chosen to reflect various neighborhoods in each city, there was a disproportionately large number in the downtown and other economically vibrant locations. This locational decision reflects the reality that these regions are busier, with elevated amounts of client flows and remittance activities, and as a result, demand greater degrees of work intensification and staff endurance to handle these work scenarios. The findings revealed a favorable correlation between social environment and well-being-focused human resource management practices. Furthermore, the social environment had a role in mediating the connection between organizational resiliency and well-being-focused human resource management practices. The research also found a connection between worker productivity and adaptability. The association between the workplace social climate and employee productivity was also mediated by employee resilience. The researcher proposed that future research may adopt various kinds of human strategies for managing resources to evaluate their impact in light of the study's results and constraints. The development

and validation of improved working assessments of well-being-oriented human resource administration techniques to supplement those utilized in the current study is a crucial subject for future studies. Future studies could aim to employ a cross-lagged panel design or take research methodologies into account.

Al-Dmour et al. (2020) researched the moderating effects of administrators' socio-demographic factors (age, sex, profession, knowledge, and status) in banking institutions in Lebanon on the influence of knowledge managerial activities (gathering, incorporation, and usage) on digital financial creativity. A theoretical foundation built on experience and understanding theory and a research study was created to achieve this goal. 181 people completed a self-administered survey to provide the industry research information. Financial institutions in Lebanon were the intended responders. The researcher recommended that future research be expanded to various types of service sectors based on the report's results and replications so that we could compare the effects of information managerial activities on creativity in new entry firms and different situations. Therefore, more study on a different population is required to increase the level of trustworthiness and dependability.

Atiso, Koranteng and Boakye (2020) examine the impact of financial risk management practices on the financial performance of banks in Ghana. Descriptive and inferential statistics were used to analyze this relationship using multiple regression lines. Banks were found to be highly vulnerable to liquidity, market, credit and operational risks. Research has shown that risk management practices are positively related to financial performance. Endogeneity between risk variables was also established. Banks are encouraged to consider and adopt banking rules, policies, procedures, and guidelines as a holistic approach to risk management instead of simply complying with regulatory requirements and developing a risk management culture for all bank employees. They

should control their risk appetite and try other risk reduction strategies aimed at improving the risk-return of the trade to increase profits.

Satyamurthy et al. (2020) examine the impact of financial management on commercial banks in Botswana. The results of the regression analysis show a statistically positive relationship between loans, total assets, and liquid assets based on total assets, return on assets and return on equity. Loan-to-deposit ratio and asset-to-deposit ratio are statistically negatively correlated with return on assets and return on equity. Cash and cash equivalents and total assets are statistically weakly related to equity earnings and equity returns, while cash and savings rates are statistically related negatively to returns on assets and returns on equity. The findings show that commercial banks should try to improve their efficiency in finance to improve banking efficiency. Policymakers through the central bank should develop measures such as minimum capital requirements to keep banks profitable.

### 2.4.2 Effect of treasury management practices on the profitability of banks

Ajetunmobi et al. (2017) researched how the treasury single account has affected the monetary foundation of Nigerian banking institutions. The research investigates how treasury single accounts affect the profitability of Nigerian banking institutions. Data from time series were used in this investigation. The study's participants include all of Nigeria's financial institutions. Since 15 financial institutions are listed on the Nigerian Stock Exchange, companies were chosen as research samples. Supplementary information was gathered for this study's purposes (from bank annual reports). Utilizing mean and standard deviation and associated sample t-tests, the acquired

data was examined. The study aims to determine the impact of the treasury single account's acceptance on the profitability of financial institutions since its establishment and successful integration in 2015. The treasury single account is a new occurrence in the nation. The cash flow has been used in this investigation to gauge solvency. Additionally, the bank's precise net profit after taxes was used to calculate the tax-deductible profit. The outcomes demonstrated that the treasury single account's introduction had a detrimental effect on the capital adequacy foundation of the Nigerian banking institution. The taxable profits of banks operating in Nigeria both before and after the implementation of the treasury single account also differ significantly. Depending on the study's results and shortcomings, the researcher proposes that if the strategy is put into practice, it will result in the quick distribution of all money into the national coffers without the need for the financial intermediary of several financial affairs.

Alvarez et al. (2021) carried out a study to examine the impact of managing working funds on the profitability of Argentine industries using the basic theoretical paradigm outlined. The study's goal is to analyze how working capital factors affect the profitability of small and medium-sized enterprises in Argentina. Utilizing a stratified random sample approach and economic criteria, the companies were chosen. This method was used to increase the accuracy of the estimations and to guarantee that the sample was composed of suitably diverse businesses in terms of volatility, company with regard, and resources. A survey was in two sections which were used to gather the information. At first, there was public information about the business and its proprietors. All the income statement information needed to create the variables envisioned in our research was essential for the second. The financial statement data has been adjusted to offset the impacts of hyperinflation. Three years are the time frame being examined (2016–2018). From the research, we disqualified all businesses that provided insufficient data. 177 SME survey participants finished the experiment's questioning at the time of its conclusion. The findings showed a positive and

statistically significant association among all elements of working capital and profit, indicating that raising each indicator under consideration will lead to improved outcomes in regard to return on assets and return on equity. On the other hand, leverage has demonstrated a statistically significant negative link with revenue, indicating that a rise in debt has a detrimental effect on business efficiency.

Alexandra and Downing (2021) found that risk strategy, capital, and financial instruments significantly affect the financial performance of Russian commercial banks. It was also explained that financial leverage and risk are widely accepted by Russian commercial banks. As a result, recommendations can be made and implemented by policymakers and banking regulators. The document contains an introduction and problem statement; a theoretical basis; a review of research conducted on the topic; a definition of methodology; a presentation of research results; a discussion; and recommendations.

### 2.5 Hypothesis development

This segment discusses the five key hypotheses as shown in Figure 2.1. Subsections have been created and discussed for each of the hypotheses as illustrated by the research model. The study hypothesis has been developed based on the study objectives.

#### 2.5.1 Funding strategies and banks' profitability

Banks‘ main source of money to generate profits is through their funding techniques or strategies. The cost of financing will increase as more money is generated, particularly if costly funds like interest rates make up a large portion of the fund schemes. Because of the increased cost of financing, bank profits will decline. As stated by Nuriyah et al. (2018): "Financing strategies have a favorable influence on the bank return on assets in Indonesia," funding strategies have a positive and substantial impact on bank profitability, according to several study findings. The findings of

Ali and Puah (2018) then demonstrate a notable favorable impact of funding techniques on return on assets at Indonesian Sharia Banks between 2013 and 2016. Similarly, funding techniques, according to Arnould et al. (2022), significantly increase the profitability of the Tehran Stock Exchange. Moreover, the findings of their study, as reported by Sihotang and Hasanah (2021), indicated that funding techniques had a sizable impact on the earnings of Malaysian banks. Similarly, assets have a positive and considerable impact on the profits of banks in Pakistan, according to research by Kustina et al. (2019. Hence, it is anticipated that a positive influence of Funding strategies on Rural banking profitability:

*H1: Funding strategies have a positive effect on Rural banking profitability*

### 2.5.2 Investment strategies and banks' profitability

Many financial institutions' portfolios are dominated by alternative investments, which account for 50 to 75 per cent of all assets Bikker and Vervliet (2018). As a result, the revenue from investment strategies contributes most to bank profitability. The development of alternative investments and the standard of interest-bearing and principal repayments will have an impact on bank profitability. The outcomes of studies that have been carried out in a different mechanism make this clear. For advertisement banks in Indonesia from 2014 to 2018, an investigation by Kahveci and Wolfs (2018) revealed that investment strategies had a substantial positive impact on bank cash flow. Additionally, the unintended byproduct of financial investments had a substantial positive impact on the bank dividend payout ratio with a financial position as an influencing factor. Additionally, the findings of Erzha et al. (2019) indicate that the investment or techniques strategies had a positive influence on mainstream bank profitability in Indonesia between 2013 and 2017. Then,

only indigenous banks in Malaysia are affected significantly by alternative investments, according to Alzoubi (2018). Additionally, investment methods have a favorable and considerable impact on the profitability of Pakistani banks, according to Brogi and Lagasio (2019). Hence, it is anticipated that a positive influence of investment strategies on rural banks' profitability:

*H2: Investment strategies have a positive effect on rural banks' profitability*

### 2.5.3 Liquidity management and rural banks' profitability

The findings of the research are in line with those of Suryaningsih and Sudirman's (2020) investigation, which demonstrated that effective liquidity handling or management significantly increased profitability (ROA). Because more money is required to fund or issue debt, there is a higher level of bankruptcy. The scale of the funding sources indicates that the bank controls the majority of the money in the method of funding or credit, resulting in a rise in interest revenue. Rural bank profitability will rise together with the rate of interest earned as a consequence of the funds or loan. The outcomes of this investigation concur with those of Awo and Akotey (2019), Kholidah et al. (2018), and Wurarah and Mokodompit (2020), all of which found that effective liquidity governance or management significantly increases profitability (ROA). The econometric coefficient of determination for X2, or liquidity management, according to the findings of the t-test computations, is 0.003, with a confidence interval that is 0.018 less than the actual level of 0.05. This demonstrates that managing liquidity positively and significantly affects profitability (ROA), supporting the alternate assumptions. This implies that the return on assets increases with improved liquidity management. This occurs because the bank's inability to fulfill its short-term commitments or issues creates a risk associated with liquidity handling or management. Consequently, assessing liquidity management demands is a very sophisticated bank challenge in terms of operating a bank. The government's perception of financial institutions will be influenced

by their ability to control liquidity, which will support their business operations and boost profitability for rural banks. Hence, it is anticipated that a positive influence of Internal Audit Quality on Financial Reporting Quality:

*H3: Liquidity management has a positive effect on rural banks' profitability*



### 2.5.4 Risk management and bank profitability

Researchers Serwadda (2018), examined the impact of risk management on profitability and discovered indications that risk management was significantly related to bank profitability.

According to data compiled by Abdelaziz et al. (2022), risk management considerably increased bank profitability. Ekinci and Poyraz (2019) came to a distinct conclusion, discovering proof that risk management increased bank profitability. Bank profitability and risk control are mutually beneficial. Profitability has a favorable impact on risk mitigation, according to research by Widjaja (2019) and Ahmad et al. (2020). Although Fadun and Oye (2020) research found proof that risk management significantly impacted banks' financial performance, Bank profitability is a significant aspect that influences a company's success in furthermore to capital and risk considerations. According to Al Rahahleh et al. (2019), bank profitability is crucial to enhancing a company's success. Bank profitability has a noticeably good impact on a firm's management risk, according to research done by Adamu (2022). Hence, it is anticipated that a positive influence of Risk management on rural bank profitability:

*H4: Risk management has a positive effect on rural bank* profitability

### 2.5.5 Banks' size and banks profitability

Several researches showed a favorable association amongst bank size and profitability, and plenty of other things, in contradiction to the results that were described earlier. In their research,

Ali and Puah (2018) found that the size of the bank had a beneficial effect on profitability. Almaqtari et al. (2019) and Alzoubi (2018) discovered that the placement of the bank had a positive influence on profitability. The size of the bank, on the other hand, has a considerable impact on profitability, according to studies by Al-Harbi (2019), Abbas et al. (2019), and Abdelaziz et al. (2022). On average, large businesses with significant overall assets may make sizable profits. Due to their greater level of performance, larger banks gauge assets positively compared to smaller banks. Banks can have more capital assets than banks with smaller assets if they possess substantial amounts of those assets. According to the study results of Yao et al. (2018), bank size is one of the factors affecting how profitable banks are in Europe. According to a study by Haryanto et al. (2019), the size of the bank had a positive impact on profitability. Other research by Batten and VO (2019), Martins et al. (2019), and Adelopo et al. (2018) revealed that the size of the bank had a positive relationship with the profitability of the institution. Hence, it is anticipated that a positive influence of Bank size on rural banks' profitability:

*H5: Bank size has a positive effect on rural banks' profitability.*

### 2.6 Conceptual Framework

The study provides a conceptual framework for examining the relationship between the dependent variables of the study and the independent variables of this study. The conceptual framework of the study shows that the variables used to control the financial management of rural banks; the controlling variable is the position of the bank in terms of the variables. Instead, it is the financial situation of rural banks.

The financing method is determined by the weight of the total assets from the customer's deposits, the total assets of the short-term non-deposit loans and the total long-term loans. It was taken from

the annual financial report of each rural bank. It is taken from the annual financial report of each rural bank. The annual data to be collected includes the number of customer deposits, short-term loans other than deposits, long-term loans and total assets. The investment policy is determined by the ratio of short-term consumer loans to total assets and government investment to total assets. This appears in the annual financial report of the rural banks. Liquidity management is based on the weight of all customer deposits and current assets, compared to current liabilities and all cash. The information is obtained from the annual financial report of the rural banks. Available data includes assets, mobile deposits and current assets and current liabilities (Aleksandra and Downing, 2021; Sathyamoorthi et al., 2020; Atiso et al., 2020). Financial risk management is calculated from foreign currency, interest rate and credit risk used to manage risk and study the impact of the financial performance of commercial banks.

Exchange rate risk is measured by the loss/profit ratio of all currencies. Loan-to-value risk is measured by the value of all loans and assets and is measured as the ratio of non-performing loans to total advances. The data is taken from the bank's annual accounts and shows profit or loss, gross margin, interest, gross margin, non-performing loans and loan consolidation. The differences in the financial position of the rural banks are measured using the DuPont method, in which the profit margin is multiplied by the total assets and the total financial strength. This information can be found in the financial report of the rural bank and the management report. This will be calculated through income on total sales, sales on total assets, total assets and shareholders' equity. The annual figures will include net income, total sales, total assets and holdings. Its shares The DuPont model will be used as a comprehensive measure of the financial performance of rural banks (Saleh and Winarso, 2021).

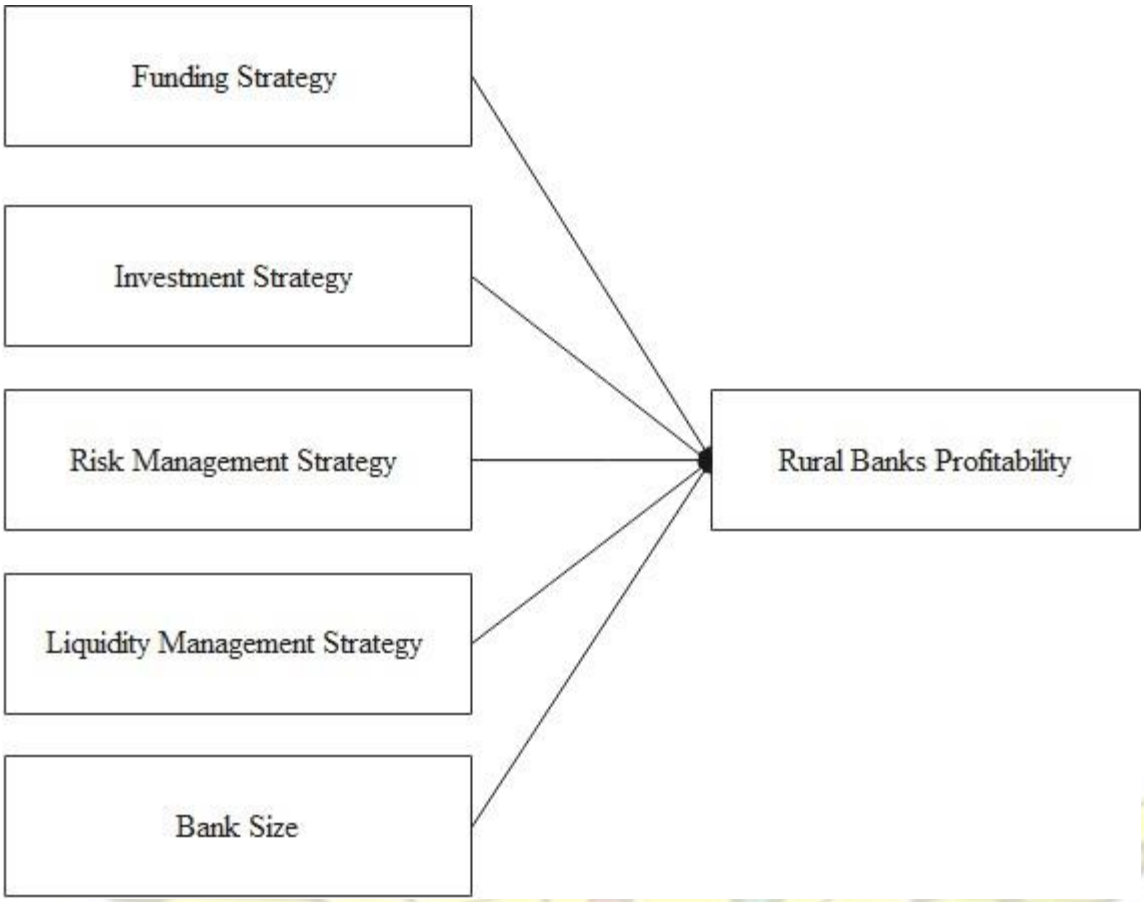


**Figure 2.1 Conceptual Framework**

**Source: Researcher, 2022**

## 2.7 Summary of chapter

The reviewed literature shows the importance of asset management to improve the profitability of rural banks. Considerations: Risk management theory and preference theory show the need to link asset management and expected income in rural banks. However, empirical studies have revealed some inconsistent results on the impact and direction of the adoption of treasury management practices, particularly in rural for-profit banks in Ghana. Differences in study results may be due to differences in methods, subjects, and periods. Research has generally focused on private asset management and commercial banking without examining the overall impact of asset management

on financial performance. Moreover, many articles in developed and developing countries conflict. Based on the identified gaps, this study aims to fill these knowledge gaps by researching the financial performance and treasury management practices of rural banks in Ghana.

# CHAPTER THREE

# METHODOLOGY

## 3.0 Introduction

This chapter elaborates on the methodological techniques and tools appropriate for the analysis of the data. It expressly outlines the design of the research, data type, and source, as well as the instrument suitable to collect the data. The section also identifies the population, sample, and sample size on which the study was conducted. Additionally, it explains the methods and adopted model, as well as the diagnostic tests appropriate to achieve the objectives of the study.

The chapter summary was also presented.

## 3.1 Research Design

Each research study has a different design depending on the goals or hypotheses. As a result, a variety of study designs are available to address particular objectives or issues. McCombes (2021) defined a research design as the framework that guides the entire research process to achieve its objectives by gathering the data, and the procedures used to analyze the data.

Therefore, the design for this study is a descriptive cross-sectional.

## 3.2 Population of the Study

A population is described to encompass all persons that possess identifiable similar traits desired for an inquiry (Edmonds and Kennedy, 2017). Therefore, the target population for this study encompassed all the rural banks within the study area.

## 3.3 Sample and Sampling Technique

### *3.3.1 Sample Size*

According to Budiu and Moran (2021), the appropriate sample size for quantitative studies is at least 40. Therefore, based on this, the study used all 23 registered rural banks in the Eastern region.

In each of the banks, the managers together with two top treasury managers were selected. This provided a total sample size of 69 participants.

### *3.3.2 Sampling Technique*

The convenience sampling technique aided the study to select the rural banks that were close and accessible to the researcher. The purposive sampling approach on the other hand was adopted on banks that possessed the required information. This approach was necessitated because the study was interested in choosing only the rural banks that could provide the full information. Also, only high-level staff such as managers and treasury managers from various rural banks was purposely selected to respond to the data collection instrument.

## 3.4 Data and Data Collection

The study used primary data for its analysis. Byju‘s (2020) described primary data as the firsthand original information obtained by the researcher through a survey. The primary data was taken on the treasury management of the banks and their profitability.

To collect the data, the researcher administered a data collection instrument through Google forms. A Whatsapp platform was created to aid in the data collection process, while others were shared through the emails of the managers or operations.

### *3.4.1 Data Analysis*

In order to establish the link between the dependent and independent variables, the Ordinary Least Square regression model was constructed.

The general model is stated below:

$$y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \varepsilon \qquad (1)$$

The empirical model is as follows:

$$Pr_1 = \alpha + \beta_1 FS_1 + \beta_2 IS_2 + \beta_3 RMS_3 + \beta_4 LMS_4 + \beta_5 FS_5 + \varepsilon \quad (2)$$

Where Pr= Bank Profitability, FS = Funding Strategy, IS = Investment Strategy, RMS = Risk Management Strategy, LMS = Liquidity Management Strategy and BS = Bank Size α= Constant, ε= Error and $\beta$'s the regression coefficients.

### *3.4.2 Variable Description and Measurement*

**1. Profitability**

The profitability of firms can be measured in three ways; return on equity, return on assets, and net interest margins (Berrios, 2013). The current study was constrained in getting these measures of profitability because rural banks in the study area do not publish their financial statement on their websites. Therefore, constructs were created in the questionnaire as adopted from Gatimu, (2019). This is treated as the dependent variable in the model (2).

**2. Funding Strategy**

The funding strategy, according to Gatimu (2019), is made up of the customer deposit, shortterm non-deposit borrowings, and long-term borrowing. Therefore, the combination of these three existing funding sources could either have a positive or negative relationship with profitability. In section C of the questionnaire, constructs were added to elicit responses to cover this strategy.

**3. Investment Strategy**

Gatimu (2019) indicated that investment strategy is obtained by combining the short-term, deposits of advanced, and government securities. This strategy is expected to have either a positive or negative effect on profitability depending on how efficiently investments were done (Gatimu, 2019).

**3. Risk Management Strategy**

Risk management comes in two forms; credit risks, liquidity risks or interest gain expenses (Gatimu, 2019). Naili and Lahrichi (2020) indicated that credit risk is determined by the level of non-performing loan holdings in a bank‘s account. Kenton (2021) on the other hand defined liquidity risk as the situation where it becomes difficult for a financial institution or company to meet its short-term debt obligations. Therefore, a good risk management strategy poses a positive impact on profitability, and vice versa.

**5. Liquidity Management Strategy**

To manage the liquidity of a bank means controlling the funding sources of the bank. This includes cash and cash equivalent, customer call deposits, and current ratio (Gatiwu). A construct in the questionnaire section c elicited responses relating to this strategy

**6. Bank size**

The size of the bank is obtained by taking the natural logarithm of the total asset (Shah and Lahiani, 2018). Bank size has an increasing effect on profitability (Menicucci and Paolucci, 2016). This variable, according to Saleh and Afifa (2020) imposes a positive relationship with profitability. However, Aladwan (2015) revealed that bank size is related negatively to profitability. He argued that though bigger banks have easy access to financing, however, they are much more susceptible to poor diversification and liquidity risks. Therefore, as the profitability rises, bank size decreases.

**3.4.3 Data Collection Instruments**

The data were collected using structured questionnaires. The respondents were asked to fill out structured questionnaires that were made to meet the study's goals. The questionnaires were made with a 5-point Likert scale, with 5 representing the most agreeable and 1 being the least. The

questionnaire was separated into three sections A and B. The 'A' section of the questionnaire collected demographic characteristics of the managers/operation such as gender, age and years of service, etc. Section B comprised questions that were directed to answer the two research questions. Thus, it elicited responses on treasury management techniques and profitability.

### 3.5 Validity and Reliability of Constructs

Every study needs to consider the reliability and validity of the research instruments. According to Oliver (2010), conducting a validity test on research tools is a necessity for all researchers. Therefore, this study carried out the validity test on its tool (questionnaires) to make sure that the replies received were consistent. Thus, the questionnaires were pretested on a small sample of 10 respondents to determine whether the Likert-scale questions provided consistent responses or not. The reliability of the construct which determines the dependability of the research constructs was also carried out using Cronbach's Alpha. The study made sure that the alpha was within the threshold of at least 0.70 as recommended by Hair et al. (2019) and Taherdoost (2016).

### 3.6 Ethical Consideration

The procedures and measures that were put in place to guide the identity and responses of the participants were taken. Therefore, the entry into the banks was preceded by an official letter seeking permission and consent from the bank managers. The confidentiality of the bank details and the anonymity of respondents were some of the implemented ethical measures.

### 3.7 Chapter Summary

The chapter provided a detailed outline of how the research was carried out. The descriptive Ex post facto approach was used to direct the conduct of the research. The population included rural banks within the study area. However, the multi-stage (the combination of convenience and

purposive) sampling technique was used. This enabled the study to consider only banks in the Eastern region. The OLS regression was employed to model the relationship between treasury management and the profitability of rural banks.



# CHAPTER FOUR

# DATA ANALYSIS, RESULTS AND DISCUSSION

## 4.1 Introduction

The findings from the data are shown in this chapter. The analysis employed both descriptive and correlation statistics, reliability and validity testing. The study used multiple linear regressions to examine the association between the variables. The primary findings of the study are finally discussed and compared to earlier investigations.

## 4.2 Demographic Characteristics

The respondents‘ demographic information is presented in this part. The results are demonstrated in the table 4.1. The result from the table shows that in terms of the respondents‘ position in the organization, 79.6% indicated middle-level management and 20.4% of the rest indicated top management. In terms of the respondents‘ gender, 25.9% indicated female and 74.1% indicated male. In terms of the respondents‘ age, 11.1% indicated 18 and 30 years, 51.9% indicated 31 and 40 years and 37.0% also indicated 41 and 50 years. For their level of education, 59.3% indicated

bachelor‘s degree, 35.2% indicated graduate studies (Master/PhD) and 5.6% indicated other certificates. For the number of years of worked in the organization, 16.7% of the respondents indicated 1-5 years and 11-15 years, 40.7% indicated 6-10 years and 25.9% of the remaining indicated 16 years and above.



**Table 4. 1 Demographic Characteristics**

| Variable | Dimension | Frequency | Percent |
|---|---|---|---|
| **Indicate your position.** | **Middle-Level Management** | **86** | **79.6** |
| | **Top Management** | **22** | **20.4** |
| **Gender** | **Female** | **28** | **25.9** |
| | **Male** | **80** | **74.1** |
| **Age** | **18-30 years** | **12** | **11.1** |
| | **31-40 years** | **56** | **51.9** |
| | **41-50 years** | **40** | **37.0** |
| **Highest level of Education:** | **Bachelor’s Degree** | **64** | **59.3** |
| | **Graduate Studies (Master / PhD)** | **38** | **35.2** |
| | **Others** | **6** | **5.6** |
| **How long have you been working with the Bank?** | **1 - 5 years** | **18** | **16.7** |
| | **11 – 15 years** | **18** | **16.7** |
| | **16 years and above** | **28** | **25.9** |

| | | | |
|---|---|---|---|
| | **6 - 10 years** | **44** | **40.7** |
| | Total | 108 | 100.0 |



### 4.3 Treasury Management Practices Adopted by the Rural Banks

The first objective of the study was to determine the treasury management practices adopted by rural banks in Ghana. This section provides a descriptive statistic of the treasury management practices adopted by rural banks. The indices that described the treasury management practices adopted by rural banks are showed in table 4.2. It can be observed from the table that the treasury management practices are grouped into funding strategy, investment strategy, liquidity strategy and risk management strategy. The average responses to the questions posed under each part ranged from the minimum score of 1 (very low extent) to a maximum score 5 (Very high extent). The results shows that the aggregate mean (M=3.82; SD=1.111) measures the treasury management practices adopted by rural banks in Ghana. Although all the practices measure treasury management adopted by the banks, it can be seen items that investment strategy (M=3.95; SD=1.151) and liquidity strategy (M=4.06; SD=1.076) has mean has mean above the aggregate mean. This means that investment strategy and liquidity strategy are the most common treasury management practices adopted by the Rural Banks.

**Table 4. 2 Treasury Management Practices**

| Items | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|
| Funding Strategies | | | | |
| **The bank has short term funding policy that guides treasury"** | **1** | **5** | **3.59** | **1.408** |
| **The bank mainly uses deposits as a source of a shortterm funding** | **1** | **5** | **3.63** | **1.248** |
| **There is a list of approved sources of short-term funds** | **1** | **5** | **3.3** | **1.057** |
| **Short-term funding is done mainly to protect banks liquidity as opposed to financial performance** | **1** | **5** | **3.74** | **1.277** |
| Average Mean | | | 3.57 | 1.248 |
| Investment Strategy | | | | |
| **The bank has a short-term investment policy that guides treasury"** | **1** | **5** | **3.89** | **1.144** |
| **There is a list of approved investment instruments that can be used** | **2** | **5** | **4.26** | **0.805** |
| **The bank mainly invests in treasury bills/bonds** | **1** | **5** | **3.96** | **1.243** |

| | | | | |
|---|---|---|---|---|
| **Short term investments are done mainly to protect banks' liquidity as opposed to financial performance** | **1** | **5** | **3.69** | **1.412** |
| Average Mean | | | 3.95 | 1.151 |
| Liquidity Strategy | | | | |
| **There is a clear policy guideline used by the commercial bank"** | **1** | **5** | **3.93** | **1.272** |
| **The bank had adopted liquidity projection systems to protect against insolvency** | **1** | **5** | **3.89** | **1.192** |
| **Liquidity management is the main function of the treasury** | **3** | **5** | **4.37** | **0.76** |
| Average Mean | | | 4.06 | 1.076 |
| Risk Management Strategy | | | | |
| **There are practices and procedures through which risk management strategies are implemented"** | **2** | **5** | **3.91** | **0.875** |
| **The bank has mechanisms for managing foreign exchange risk** | **1** | **5** | **2.69** | **1.315** |
| **There is frequent risk management review by the bank** | **2** | **5** | **3.44** | **1.11** |
| **There are control risk self-assessment measures implemented by the bank** | **3** | **5** | **4.00** | **0.673** |
| **There are sound credit management practices** | **2** | **5** | **4.26** | **0.805** |
| **The bank constantly undertakes financial operating risk management** | **1** | **5** | **3.78** | **1.04** |
| Average Mean | | | 3.68 | 0.970 |
| Aggregate Mean | | | 3.82 | 1.111 |

### 4.4 Validity and Reliability

This section covers the procedures used to check the validity of the items and confirm the constructs' reliability. For quantitative studies, it is crucial to analyse the measurement model since it ensures the accuracy of the findings. However, it is vital that researchers prioritise enhancing the objectivity of their work (Hair et al., 2020). Similarly, while assessing a measurement model, it is crucial to consider the validity and reliability of the study instrument (Gideon et al., 2016).

### 4.4.1 Validity

The convergent validity of a set of indicators used to evaluate a certain idea refers to how well they really do so. Jensen (2003) asserts that a test must have a high degree of correlation with others that are founded on the same or related concepts in order to be deemed convergent valid. In most cases, convergent validity is evaluated utilising both an empirical and theoretical method. One tactic is to compare how identically two tests or tool components assess the same idea. Two standardised tests are thought to evaluate comparable components of intellect and to have a decent association with one another. Consequently, a moderate-to-strong relationship establishes convergent validity. Factor loading (FL) and average variance extracted are the two main tests that comprise convergent validity (AVE). This study used factor loading which is presented in the table 4.6. While indicators with loading values of 0.4 or lower should be disregarded and eliminated those with loading values of 0.7 or above should be accepted and kept. Indicators with loadings between 0.4 and 0.7 should be watched if CA, CR, or AVE values are beyond the threshold. Indicators shouldn't be removed from a structure, nevertheless, if doing so would cause the CA, CR, and AVE values to increase excessively. From the table 4.6 it can be observed that all the items have loadings above 0.7 indicating that the items adequately measure the constructs and this proves the validity of the items.

### 4.4.2 Reliability

Since this indicates that the scale's results are more reliable and constant, a reliable scale will have a Cronbach's alpha score that is closer to 1. The survey's rating criteria highlight these aspects. The internal consistency of the scale, the consistency of the tested constructs, and the statistical procedure used to establish validity all had an impact on the reliability test selection (Zhang and Savalei, 2016). It's common knowledge that an optimum alpha value fall between 0.7 and 0.9.

(Artmed Editora, 2013). As a consequence, it became obvious that the five scaled components could be substituted for one another. The table 4.3 has the reliability values of 0.736, 0.756, 0.806, 0.714 and 0,738 for funding strategy, investment strategy liquidity strategy, risk management strategy and Bank profitability respectively. This shows that the variables are unidimensional and that a rerun of the study will yield comparable outcomes.

**Table 4. 3 Validity and Reliability**

| | Items | Factor Loadings | Cronbach's Alpha |
|---|---|---|---|
| Funding Strategies | The bank has short term funding policy that guides treasury" | 0.787 | 0.736 |
| | The bank mainly uses deposits as a source of a short-term funding | 0.932 | |
| | There is a list of approved sources of short-term funds | 0.876 | |
| | Short-term funding is done mainly to protect banks liquidity as opposed to financial performance | 0.841 | |
| Investment Strategy | The bank has a short-term investment policy that guides treasury" | 0.949 | 0.756 |
| | There is a list of approved investment instruments that can be used | 0.819 | |
| | The bank mainly invests in treasury bills/bonds | 0.887 | |
| | Short term investments are done mainly to protect banks‘ liquidity as opposed to financial performance | 0.843 | |
| Liquidity Strategy | There is a clear policy guideline used by the commercial bank" | 0.743 | 0.806 |
| | The bank had adopted liquidity projection systems to protect against insolvency | 0.924 | |
| | Liquidity management is the main function of the treasury | 0.797 | |
| Risk Management Strategy | There are practices and procedures through which risk management strategies are implemented" | 0.826 | 0.714 |
| | The bank has mechanisms for managing foreign exchange risk | 0.876 | |
| | There is frequent risk management review by the bank | 0.735 | |

| | | | |
|---|---|---|---|
| | There are control risk self-assessment measures implemented by the bank | 0.872 | |
| | There are sound credit management practices | 0.886 | |
| | The bank constantly undertakes financial operating risk management | 0.940 | |
| Bank Profitability | Treasury management improves return on capital employed" | 0.793 | 0.738 |
| | Treasury management leads to increased return on assets | 0.913 | |
| | Treasury management increases Return on Investment | 0.747 | |
| | Treasury management improves operating profit margin | 0.740 | |

### 4.5 Descriptive Analysis

The table gives descriptive data on the variables used in the study. The mean values summarise the raw data, while the standard deviation illustrates how accurately the mean values capture the data (Field, 2009). How accurately the statistical mean represents the population is assessed using measures of central tendency (mean and standard deviation) (Kasimu et al., 2020). Table

4.4 displays the findings of the descriptive analysis. It can be seen that funding strategy (M=3.57; SD=1.248), investment strategy (M=3.95; SD=1.151), liquidity strategy (M=4.06; SD=1.075), risk management strategy (M=3.68; SD=0.970) and Bank profitability (M=4.08; SD=0.850). From the result, the variations from the mean values of all the variables were small, which demonstrate that the statistical mean represents the observed mean.

**Table 4. 4 Descriptive Statistics**

| Constructs | Mean | Standard Deviation |
|---|---|---|
| **Funding Strategies** | **3.57** | **1.248** |
| **Investment Strategy** | **3.95** | **1.151** |
| **Liquidity Strategy** | **4.06** | **1.075** |

| | | |
|---|---|---|
| **Risk Management Strategy** | **3.68** | **0.970** |
| **Bank Profitability** | **4.08** | **0.850** |



### 4.6 Correlation

Correlation analysis of the data was performed, and the link between the constructs was examined using the Pearson correlation analysis. Also shown below in table 4.5 are the correlation findings. The findings demonstrate that funding strategy is linked to investment strategy, liquidity management strategy, and risk management strategy but not to bank profitability (r=0.507, P<.05; r=0.504, P<.05; r=0.269, P<.05; r=0.13, P>.05). Investment strategy is associated with (r=0.462, P<.05; r=0.271, P<.05; r=0.287, P<.05). Liquidity strategy is associated with (r=0.508, P<.05; r=0.780, P<.05). Risk strategy is associated with bank profitability (0.585, P<.05). The constructs are positively correlated with one another, which means that a rise in one variable will result in an increase in the other variable. The results also show that the independent variables have a minor degree of correlation, indicating that collinearity is not a concern.

**Table 4. 5 Correlation Statistics**

| Constructs | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| **Funding Strategy** | **1** | | | | |
| **Investment Strategy** | **.506**** | **1** | | | |
| **Liquidity Strategy** | **.504**** | **.462**** | **1** | | |

| | | | | | |
|---|---|---|---|---|---|
| **Risk Management Strategy** | **.269*** | **.271*** | **.508**** | **1** | |
| **Bank Profitability** | **0.13** | **.287*** | **.780**** | **.585**** | **1** |

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

***** Correlation is significant at the 0.05 level (2-tailed).**



### 4.7 Regression Analysis

The study's main objective is to ascertain how Ghanaian rural banks' profitability is impacted by their treasury management. The study adopts multiple regression analysis to investigate the impact of treasury management on bank profitability.

#### 4.7.1 Model Summary

This section provides a summary of the model. R2 = 0.745 is the coefficient of determination obtained from the regression analysis and shown in Table 4.6. This demonstrates that the independent factors (funding strategy, investment strategy, liquidity strategy and risk management strategy) explain for 74.5% of the variation in the profitability of the Ghanaian rural banks whereas the independent variables that significantly affect profitability account for 72.4% of the variation. This implies that the variables which were not taken into account in the study account for 25.5% of the variation in Ghanaian rural banks' profitability. The researcher also used ANOVA tests to see whether the previously confirmed correlation was statistically significant based on the F-calculated and the sig-value.

**Table 4. 6 Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| **1** | **.863a** | **0.745** | **0.724** | **1.25882** |

**a Predictors: (Constant), RMS, FS, IS, LMS**



### 4.7.2 ANOVA

The significance level for the ANOVA tests from Table 4.7 below was 0.000, and the F-value was 35.711. This demonstrates that the variables have a statistically significant correlation and that the model successfully captures the data. It is clear that treasury management (funding strategy, investment strategy, liquidity strategy and risk management strategy) have a good impact on Ghanaian rural banks' profitability. Below is a representation of the regression analysis's coefficients.

**Table 4. 7 ANOVA**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| **1** | **Regression** | **226.353** | **4** | **56.588** | **35.711** | **.000b** |
| | **Residual** | **77.647** | **49** | **1.585** | | |
| | **Total** | **304** | **53** | | | |

**a Dependent Variable: Pr**

**b Predictors: (Constant), RMS, FS, IS, LS**

### 4.7.3 Regression Coefficient

The regression equation is $Pr = 11.031 + 0.482FS + 0.123IS + 1.016LMS + 0.177RMS + \varepsilon$.

The model α = 11.031 was statistically significant (Sig 0.000 <0.05), as shown below in table 4.8. The researcher suggested investigating the impact of funding strategy on Ghanaian rural banks' profitability. The results showed that the relationship between funding strategy and profitability of the rural banks in Ghana was statistically significant (β1=0.482; t=4.841; Sig = 0.000 <0.05). This demonstrates that, with all other factors being constant, a change in funding strategy of one-unit results in a change in Ghanaian rural banks' profitability of 0.482 units. This agrees with the hypothesis stated in the study.

The researcher also suggested investigating the impact of investment strategy on Ghanaian rural banks' profitability. The results showed that investment strategy has no statistically significant relationship with profitability of the rural banks in Ghana (β2=0.123; t=1.772; Sig = 0.083> 0.05). This demonstrates that, with all other factors being constant, a change in investment strategy will not results in any change in the Ghanaian rural banks' profitability. This does not agree with the hypothesis stated in the study.

The researcher suggested investigating the association between liquidity management strategy and Ghanaian rural banks' profitability. The results showed that the association between liquidity management strategy and profitability of the rural banks was statistically significant (β3=0.016; t=8.286; Sig = 0.000 <0.05). This demonstrates that, with all other factors being constant, a change in liquidity management strategy of one-unit results in a change in Ghanaian rural banks' profitability of 0.016 units. This agrees with the hypothesis stated in the study.

The researcher suggested investigating the connection between risk management strategy and Ghanaian rural banks' profitability. The results showed that the association between risk management strategy and profitability of the rural banks was statistically significant (β4=0.177; t=2.218; Sig = 0.000 <0.05). This demonstrates that, with all other factors being constant, a change in risk management strategy of one unit results in a change in Ghanaian rural banks' profitability of 0.177 units. This agrees with the hypothesis stated in the study.

**Table 4. 8 Coefficient**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | **B** | **Std. Error** | **Beta** | | |
| **1** | **(Constant)** | **11.031** | **1.218** | | **9.06** | **0.000** |
| | **FS** | **0.482** | **0.100** | **0.522** | **4.814** | **0.000** |
| | **IS** | **0.123** | **0.070** | **0.184** | **1.772** | **0.083** |
| | **LMS** | **1.016** | **0.123** | **1.186** | **8.286** | **0.000** |
| | **RMS** | **0.177** | **0.080** | **0.282** | **2.218** | **0.031** |

**a Dependent Variable: BP**

### 4.8 Discussion of Key Results

The key findings are discussed in this section with related literature. The study's main objective is to ascertain how Ghanaian rural banks' profitability is impacted by their treasury management. The major findings obtained with regards to the specific objectives are discussed in the subsequent part below.

The first objective of the study was to determine the treasury management practices adopted by rural banks in Ghana. The results showed that the aggregate mean (M=3.82; SD=1.111) measures the treasury management practices adopted by rural banks in Ghana. Although all the practices measure treasury management adopted by the banks, it can be seen items that investment strategy (M=3.95; SD=1.151) and liquidity strategy (M=4.06; SD=1.076) has mean has mean above the aggregate mean. This means that investment strategy and liquidity strategy are the most common treasury management practices adopted by the Rural Banks. The results are consistent with those of Gatimu (2019), who looked at treasury management methods as well and found that the major funding, investment, liquidity, and risk management strategies were the key treasury management techniques employed by the commercial banks. The survey also revealed that short-term financing policies were the most commonly used funding strategy and that deposits were the least frequently used source of short-term funding. The research supports the findings of Polak et al. (2018), who also emphasised the significance of treasury management in the business environment. the concluded that in the near future, global approaches to overall corporate operations, advancements in information technology, and new financial rules will be the most crucial elements of treasury management.

The second objective of the study was to ascertain how Ghanaian rural banks' profitability is impacted by their treasury management. The researcher suggested to investigate the impact of funding strategy on Ghanaian rural banks' profitability. The results showed that the relationship between funding strategy and profitability of the rural banks in Ghana was statistically significant ($\beta1=0.482$; $t=4.841$; Sig = 0.000 <0.05). This demonstrates that, with all other factors being constant, a change in funding strategy of one unit results in a change in Ghanaian rural banks' profitability of 0.482 units. This agrees with the hypothesis stated in the study. The findings support Shahchera and Taheri (2018), which studied the effect of stable funding strategy on profitability in Iranian Banking System and found that funding strategy, has significant impact on profitability of the Iranian banks. These results are consistent with Buchory's (2021) who also identified that funding strategy has effect on profitability of banking sectors in Indonesia. The researcher also suggested investigating the impact of investment strategy on Ghanaian rural banks' profitability.

The results showed that investment strategy has no statistically significant relationship with profitability of the rural banks in Ghana ($\beta2=0.123$; $t=1.772$; Sig = 0.083> 0.05). This demonstrates that, with all other factors being constant, a change in investment strategy will not results in any change in the Ghanaian rural banks' profitability. This does not agree with the hypothesis stated in the study. The results contradict those of Al-Azzawi and Altmimi (2015), who investigated how technical investment affects business profitability and found that it raises firm profitability. The results disagree with those of Abdirahman (2014), who similarly examines the impact of investment techniques on the success of communal investment plans in

Somaliland. Given that it was primarily concerned with all collective investment schemes in Somaliland, the research approach was descriptive survey study in nature. The results also showed that profitability and return on assets were positively and significantly correlated with investment

strategy. The researcher suggested investigating the association between liquidity management strategy and Ghanaian rural banks' profitability. The results showed that the association between liquidity management strategy and profitability of the rural banks was statistically significant ($\beta 3=0.016$; $t=8.286$; Sig = 0.000 <0.05). This demonstrates that, with all other factors being constant, a change in liquidity management strategy of one unit results in a change in Ghanaian rural banks' profitability of 0.016 units. This agrees with the hypothesis stated in the study.

The results contradict those of Lamberg and Vlming (2009), who sought to determine if a change in liquidity strategy is connected to profitability as assessed by return on assets (ROA). With certain limitations, the sample included only businesses that were listed on the Stockholm Stock Exchange's Small and Midcap lists. Data was gathered using telephone interviews, a quantitative research technique, and financial ratios taken from the financial accounts. According to the research, changing liquidity techniques does not significantly affect ROA. However, the results back up Ismail (2016), who looked at how liquidity management affected the performance of the 64 non-financial businesses in Pakistan that make up the KSE 100 Index during the years 2006 to 2011. It has been discovered that the cash conversion cycle and the liquidity variables current ratio have a considerable favourable influence on profitability (ROA). Additionally, findings show that longer cash conversion cycles and high current ratios help businesses operate better. Also, the findings are in line with those of Ibe (2013), who examined how liquidity management impacted the profitability of Nigerian banks. While profit after tax is utilised as a stand-in for profitability, cash and short-term funds, bank balances, and government notes and certificates serve as stand-ins for managing liquidity. The findings showed that effective liquidity management affects profitability. The researcher also suggested investigating the connection between risk management strategy and Ghanaian rural banks' profitability. The results showed that the association between risk management strategy and profitability of the rural banks was statistically significant

(β4=0.177; t=2.218; Sig = 0.000 <0.05). This demonstrates that, with all other factors being constant, a change in risk management strategy of one unit results in a change in Ghanaian rural banks' profitability of 0.177 units. This agrees with the hypothesis stated in the study.

The results back up Haneef et al. (2012), who looked at how risk management affected nonperforming loans and banking sector profitability in Pakistan. The whole data set was secondary in nature and was drawn from five banks. The research results demonstrated that risk management strategies increase profitability. The findings concur with those of Owolabi et al. (2017), who examined how risk management affects insurance business profitability. The study used a descriptive survey approach. The study included 60 respondents who were chosen by straightforward random sampling methods. The procedures used in financial risk management have an effect on the insurance company's profitability, according to the findings.

# CHAPTER FIVE

# SUMMARY, CONCLUSION AND RECOMMENDATIONS

## 5.1 Introduction

The findings, conclusions, and recommendations are summarized in this chapter, which also serves as the study's last chapter. The study limitations and the direction of future research are also covered in this chapter.

## 5.2 Summary of Findings

### 5.2.1 Treasury Management Practices adopted by Rural Banks in Ghana

The first objective of the study was to determine the treasury management practices adopted by rural banks in Ghana. The result showed that although all the practices measure treasury

management adopted by the banks, investment strategy and liquidity strategy are the most common treasury management practices adopted by the Rural Banks. It has discovered by many studies that the major treasury management practices include liquidity strategy, investment strategy, risk management strategy and funding strategy.

It is known as liquidity management when referring to the services your bank offers to its business clients so they may maximise the interest on their checking/current accounts and pool money from other accounts. Since surplus cash may be held in interest-bearing accounts, liquidity management is crucial for ensuring that businesses have access to cash when they need

it.

An investing strategy is a plan created to assist lone investors in achieving their monetary and investment objectives. The choice of an investment plan is influenced by a person's age, wealth, risk tolerance, and aspirations. An investing strategy is a plan created to assist lone investors in achieving their monetary and investment objectives. Investment strategies are methods of investing that assist people in achieving both short- and long-term objectives.

A risk management strategy is a planned method of tackling hazards that may be applied to businesses of any size and in any sector. Risk management is best understood as a cyclical process in which new and ongoing risks are continuously recognised, analysed, managed, and monitored rather than as a set of sequential processes. This makes it possible to analyse and update evaluations when new information emerges and then take action to safeguard the organisation, its members, and its assets.

A funding strategy is a documented, mutually agreed-upon plan that establishes the long-term financial needs of an organisation or group. A funding strategy typically outlines the plans for the next three to five years and spans that timeframe. It is a document that should describe how funds

and resources will be raised in order to accomplish the goals of the organisation or group. A funding strategy should be a useful, actionable document that trustees, employees, and fundraisers can all understand. A finance strategy should follow the objectives, deadlines, and resource requirements specified in a long-term action plan.

### 5.2.2 Impact of Treasury Management on Profitability of Rural Banks in Ghana

The second objective of the study was to ascertain how Ghanaian rural banks' profitability is impacted by their treasury management. The researcher suggested investigating the impact of funding strategy on Ghanaian rural banks' profitability. The results showed that the relationship between funding strategy and profitability of the rural banks in Ghana was statistically significant. This demonstrates that, with all other factors being constant, a change in funding strategy of one unit results in a change in Ghanaian rural banks' profitability. The researcher also suggested investigating the impact of investment strategy on Ghanaian rural banks' profitability.

The results showed that investment strategy has no statistically significant relationship with profitability of the rural banks in Ghana. This demonstrates that, with all other factors being constant, a change in investment strategy will not results in any change in the Ghanaian rural banks' profitability. The researcher suggested investigating the association between liquidity management strategy and Ghanaian rural banks' profitability. The results showed that the association between liquidity management strategy and profitability of the rural banks was statistically significant. This demonstrates that, with all other factors being constant, a change in liquidity management strategy of one unit results in a change in Ghanaian rural banks' profitability. The researcher also suggested investigating the connection between risk management strategy and Ghanaian rural banks' profitability. The results showed that the association between risk management strategy and profitability of the rural banks was statistically significant. This demonstrates that, with all other

factors being constant, a change in risk management strategy of one unit results in a change in Ghanaian rural banks' profitability. It is evident that treasury management has significant impact on profitability of banks.

By handling cash, investments, and other financial assets, treasury management services help simplify organisational finances. It is a management method that maximises the liquidity of your company while minimising the risk to its finances, operations, and reputation. Managing cash and liquidity is frequently referred to as Treasury's "main task." A business must essentially be able to pay its creditors, suppliers, workers, lenders, and shareholders when they become due. A company's financial health and resilience may be supported by the connection between its treasurer and bank. It demands honesty and trust, just like any good relationship. In essence, the strength of a good spouse is everything. Treasury management systems give CFOs and treasurers the transparency and information they need to manage cash, monitor investments, debt, and intercompany loans, regulate bank accounts, manage liquidity, and deliver compliance. Treasury Management is an integrated process that handles every aspect of finance related to the creation of both internal and external cash for the company. The planning and management of the company's financial resources are also included, along with financial management and cash flow rules. By handling cash, investments, and other financial assets, treasury management services help simplify organisational finances. It is a management method that maximises the liquidity of your company while minimising the risk to its finances, operations, and reputation.

**5.3 Conclusion**

The major goal of the study is to determine how treasury management affects the profitability of rural banks in Ghana. Both a descriptive research design and a quantitative research technique were used in the study. The study's sample included 12 rural banks. Purposive sampling was

utilised by the researchers to gather information from 54 workers of the chosen banks using a well-structured questionnaire. Descriptive and correlation analyses were performed on the collected main data. The purpose of the descriptive data was to gauge the extent of the banks' treasury management techniques. Multiple regression analysis was utilised by the researchers to test the study's assumptions. The findings of the descriptive statistics revealed that the most popular strategies used by banks are the liquidity management and investment strategies. The outcome of the multiple regression analysis showed that the profitability of the chosen rural banks is positively and significantly impacted by the funding strategy, liquidity management strategy, and risk management strategy. However, the profitability of the banks is not much impacted by investment strategy. According to the study's findings, treasury management has a big influence on banks' profitability; hence improving treasury management will greatly increase banks' profitability.

**5.4 Recommendation**

The study's main objective is to ascertain how Treasury Management impacts the profitability of Ghana's rural banks. The results of the descriptive statistics showed that the liquidity management and investment strategies are the ones that banks utilise the most frequently. The results of the multiple regression analysis demonstrated that the funding strategy, liquidity management strategy, and risk management strategy had a significant and positive influence on the profitability of the selected rural banks. However, the effectiveness of an investment strategy has no effect on a bank's profits. The study's findings indicate that treasury management has a significant impact on banks' profitability; hence strengthening treasury management will significantly boost banks' profitability. Based on the findings, the researcher made the following suggestions.

- The researchers suggests that the management of the banks put in place the proper internal processes to make sure that the present treasury management procedures are continually reviewed in light of the organisations' predicted revenues and wealth maximisation goals.
- The study suggests that financial institutions prioritise the strategies when making crucial decisions about the bank, focus on ensuring that there is a comprehensive cost allocation to the practises, internal controls, prompt release of funds after securing adequate funding, effective plan on allocation of funds, and effective authorization of funds, all of which will work to increase the efficiency of the practises.
- According to the report, bank management should continually evaluate its risk management procedures to see if they are still effective in spite of a constantly shifting work environment.
- In order to ensure that their financial-related execution is not adversely impacted, the management of the financial institutions should put in place clever mechanisms for simple risk detection and workable risk alleviation.
- Rural banks should not only focus on the profit maximisation idea but also embrace methods that will ensure efficient liquidity management because their existence depends on profitability and liquidity management. The policies' consequences on instances of excess and insufficient liquidity will be reduced or avoided.

### 5.5 Limitations and Future Research Directions

The researcher had to deal with a number of restrictions during the investigation in order to provide reliable results. Some respondents were hesitant or unwilling to engage in the study when filling out the questionnaire that collected the data. This was in keeping with the rules of several rural banks, whose employees were not allowed to provide information without first getting consent.

Others who responded mentioned busy schedules. Due to the delay in data collecting, the researcher had to request approval from all necessary organizations. Even if the study questions were satisfactorily answered, there are still certain areas that need more research. The survey's focus relied solely on the treasury management practises of rural banks, which might not accurately reflect those used by financial institutions and other companies in other industries. In order to confirm the findings, the report advises doing more research in other financial organisations. Further research should be conducted, taking other strategies into consideration and also looking into the many obstacles that may arise throughout the implementation process, as the survey primarily centered on four treasury management methods. Further research is recommended at various time intervals to see if the current treasury management procedures have changed or gotten better.

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**THE IMPACT OF TREASURY MANAGEMENT ON PROFITABILITY OF SELECTED RURAL BANKS IN GHANA**

**SURVEY QUESTIONNAIRE**

Dear Sir/ Madam,

My name is ……..,. This survey instrument has been designed to enable me to research the topic: **"The impact of Treasury Management on Profitability of selected Rural Banks in Ghana"**. Any information provided will be used for academic purposes **ONLY**. There are no risks associated with your participation, and your responses will remain confidential and anonymous.

**SECTION A: RESPONDENT'S BIOGRAPHY AND COMPANY PROFILE**

When completing this questionnaire, please tick **[√]** in the applicable box or provide an answer as applicable.

Please answer the following questions: Bank Name ……..

1. *Indicate your position.*

Top Management ☐

Middle-Level Management ☐

2. *Gender*:

Male ☐

Female ☐



3. *Age:*

18-30 years ☐ 31-40 years ☐ 41-50 years ☐ above 50 years ☐

4. *Highest level of Education:*

Senior High School ☐ Diploma ☐ High National Diploma (HND) ☐ Bachelor's Degree ☐ Graduate Studies (Master / PhD) ☐ Others ☐ For Others, Please specify:…….

5. *How long have you been working with the Bank?*

1 - 5 years ☐ 6 - 10 years ☐ 11 – 15 years ☐ 16 years and above ☐

**SECTION B: TREASURY MANAGEMENT PRACTICES ADOPTED BY THE RURAL BANKS (TMP)**

*Treasury Management Practices*

| Code | Funding Strategies (FS) | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| **FS1** | **The bank has short term funding policy that guides treasury** | | | | | |
| **FS2** | **The bank mainly uses deposits as a source of a short term funding** | | | | | |
| **FS3** | **There is a list of approved sources of short-term funds** | | | | | |
| **FS4** | **Short-term funding is done mainly to protect banks liquidity as opposed to financial performance** | | | | | |
| **Investment Strategy (IS)** | | | | | | |
| **IS1** | **The bank has a short term investment policy that guides treasury** | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| **IS2** | **There is a list of approved investment instruments that can be used** | | | | | |
| **IS3** | **The bank mainly invests in treasury bills/bonds** | | | | | |
| **IS4** | **Short term investments are done mainly to protect banks' liquidity as opposed to financial performance** | | | | | |
| **Liquidity Strategy (LS)** | | | | | | |
| **LS1** | **There is a clear policy guideline used by the commercial bank** | | | | | |
| **LS2** | **The bank had adopted liquidity projection systems to protect against insolvency** | | | | | |
| **LS3** | **Liquidity management is the main function of the treasury** | | | | | |
| **Risk Management Strategy (RMS)** | | | | | | |
| **RM1** | **There are practices and procedures through which risk management strategies are implemented** | | | | | |
| **RM2** | **The bank has mechanisms for managing foreign exchange risk** | | | | | |
| **RM3** | **There is frequent risk management review by the bank** | | | | | |
| **RM4** | **There are control risk self-assessment measures implemented by the bank** | | | | | |
| **RM5** | **There are sound credit management practices** | | | | | |
| **RM6** | **The bank constantly undertakes financial operating risk management** | | | | | |

This section aims to identify the treasury management practices used by rural banks.
Please rate the following using a Likert scale of 1–5 where 1 is very small extent, 2 is small extent, 3 is moderate extent, 4 is large extent and 5 is to a very large extent.

**SECTION C: PROFITABILITY OF RURAL BANKS**

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This section aims to identify the profitability of rural banks.

Please rate the following using a Likert scale of 1–5, where 1 is very small extent, 2 is small extent, 3 is moderate extent, 4 is large extent and 5 is to a very large extent

| Code | STATEMENT | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| **BP1** | **Treasury management improves return on capital employed** | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| **BP2** | **Treasury management leads to increased return on assets** | | | | | |
| **BP3** | **Treasury management increases Return on Investment** | | | | | |
| **BP4** | **Treasury management improves operating profit margin** | | | | | |