TITLE: LIQUIDITY MANAGEMENT IN BANKS A CASE STUDY ON GHANA COMMERCIAL BANK (SUAME) AND ECOBANK GHANA (ADUM)

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DECLARATION

We hereby declare that, apart from references made to another people's work which we duly acknowledge, this work is a result of my own findings and research and that it has neither in part nor in whole been presented elsewhere for another degree.

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STATEMENT OF AUTHENTICITY

We have read the university's regulation relating to plagiarism and I hereby declare that this submission is my own work and that, to the best of my knowledge, it contains no material which is previously published by another person or material which has been accepted for the award of any other degree of the University. We also declare that we have been under supervision for this report here in submitted.

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ABSTRACT

The objective of the study was to examine the liquidity management practices of the banks in Ghana using Ecobank and Ghana Commercial Bank as case study. The study also looked into the liquidity and profitability position in order to find out why banks need to be more liquid than any other financial institutions as well as business Organization. The aim is to find the lasting solution to eliminate fund shortages and inability of some banks to provide a required liquid when called upon on emergencies. Regression analysis was the major statistical tool used to analyze the data collected from the rural bank. SPSS software was used for the analysis and Correlation analysis was used to examine the relationship between the rate of profitability and liquidity with respect to asset portfolio management.

According to the study, liquidity shortage in most banks is as a result of difficulty in organizing an optimal or feasible cash management structure after taking into account the operational and regulatory constraints, inability to forecast short-term and long-term cash requirements and struggle on centralizing and outsourcing cash management decisions. The purpose of this study is to explore the reasons why financial institutions often face heavy demands for immediately spendable funds (liquidity) and learn about the methods they can use to prepare for meeting their cash needs.

Finally the researcher concluded that banks should keep liquid in excess to solve the problem of inadequacies and delicacies and to close the gap of scarcity of fuels whenever there is a signal of low centers and low liquid by the head of treasury.

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CHAPTER ONE - BACKGROUND OF THE STUDY

1.0 INTRODUCTION

The first chapter of this thesis introduces the reader to the area of study, providing a background for the paper as a whole together with its relevance. The research questions are represented together with the limitations of the study and choice of subject.

Liquidity management is the ability of the firm to generate enough cash required to meet the firm's needs. A bank is considered liquid when it has asset and investment in security that are easily reliable at a short notice without a loose to the bank together with the ability to raise fund from the other source, to enable it to meet its payment obligation and financial commitment in a timely manner. Liquidity management ensures that banks have adequate funds to meet their customer's unexpected withdrawal and agreed loan commitments.

In furtherance, liquidity management of commercial banks is a very vital issue in the banking industry. It is the ability of the bank to manage its liquidity position so that neither the liquidity nor the profit will suffer. For this to be effective, liquidity management must contribute to the achievement of the overall cooperate fund management objectives to attain and maintain a balance of profitability, solvency and liquidity. The concern of business owners and managers all over the world is to devise a strategy of managing their day to day operations in order to meet their obligations as they fall due and increase profitability and shareholder's wealth.

As liquidity and profitability are two inherent goals in commercial banks, bank managers continue to experience the conflict of trying to provide efficient mechanism of addressing their banks liquid and safety necessary from the nature of their liabilities. Practically, profitability and liquidity are effective indicators of the corporate health and performance of not only the commercial banks (Eljelly, 2004), but all profit-oriented ventures. These performance indicators are very important to the shareholders and depositors who are major publics of a bank. As the shareholders are interested in the profitability level, the depositors are concerned with liquidity position which determines a bank's ability to respond to the withdrawal needs which are normally on demand or on a short notice as the case may be.

Infact, most bank failures are due to difficulties in managing their liquidity problems. Banks should maintain adequate liquidity to meet unforeseen and seasonal loan demand and fluctuations of deposits. Cash reserves are also needed to take advantage of unexpected profitability investment opportunities. In the light of this, the researcher has decided to discuss this topic based on the analysis of the data collected. The researcher will suggest some solution to the problem of liquidity management of Ecobank and Ghana Commercial Banks.

1.1 STATEMENT OF PROBLEM

Maintaining liquidity to a minimum level is desirable. High liquidity reduce the overall profitability but in contrast maintaining low level liquidity reduce the customer demand, as a result customer switch become the common phenomena. In long run these situation create risk exposure to the assessed policy. Every commercial bank should ensure that it operates on profit and at the same time meets the financial demands of its depositors by maintaining adequate liquidity. The problem then becomes how to select or identify the optimum point or the level at which a commercial bank can maintain its assets in order to optimize profit and at the same time meets the financial demands of its depositors by maintaining adequate liquidity.

Commercial banks are business oriented firm with their shareholder interested on profitability. In other to satisfy its shareholders, a bank might be attempted to forget liquidity and pursue profitability by investing on a high yielding less liquid asset that are profitable at the expense of liquidity which is dangerous. It is always necessary to balance liquidity and profitability in order to have efficient bank management. Therefore, all these problems are what the study intends to consider, find solutions and make recommendations where necessary using Ecobank Ghana and Ghana Commercial Bank as case study.

1. 2 OBJECTIVE OF THE STUDY

The objectives of the study are;

1. To identify how liquidity management helps managers in banks.

2. To identify the challenges of liquidity management in banks.

3. To examine the relationship between the rate of profitability and liquidity with respect to asset portfolio management.

4. To develop means by which banks can manage their liquidity to increase their profitability

1.3 RESEARCH QUESTIONS

1. What is liquidity management and how do banks manage their liquidity?

2. What are the challenges of managing liquidity in banks?

3. What is the relationship between the rate of profitability and liquidity with respect to asset portfolio management?

4. How can banks manage their liquidity to increase profitability?

1.4 SIGNIFICANCE OF THE STUDY

This study is significant because it deals with an issue banks are facing and will continue to confront in the future. It is hoped that through this study, the stakeholders and top managers of financial institutions would be enlightened in terms of the knowledge and experience in managing the vaults of the bank's liquidity. Moreover, this study provides operational efficiency analysis and profit margin to banks for planning, decision-making and control. The study could also be important to potential investors of bank organizations because is aids them in managing their earnings per share, Cash flow per share and Dividend yield.

In furtherance, the study could provide the management of Ecobank Ghana and Ghana Commercial Bank further insight into best liquidity management practices or technique that may be useful and appropriate for solving liquidity management problems in order to increase their profit margin. Employees also have interest in the liquidity to know whether the company can meet its employees' related obligations: salary, pension, provident funds etc. Every stakeholder and shareholders are interested in understanding the liquidity due to its huge impact on the profitability.

1.5 LIMITATION OF THE STUDY

This study is concentrated in two selected banks in Kumasi which are Ecobank Ghana and Ghana Commercial bank. Problem formulation together with the construction of the questionnaire is based mostly on theoretical knowledge of the cash management and liquidity techniques. Due to sensitive nature of this area in the intensely competitive banking industry, access to vital information such as liquidity management policies and procedural manuals which are viewed as the preserve of the banks were difficult. The researcher found it difficult to obtain official information or data relevant to this study from banks due to bank oath of secrecy and fear. The study did not also consider the liquidity management practices of the rural banks and the savings & loans institutions.

1.6 ACRONYMS

- BOG: Bank of Ghana
- DMB: Deposit Money Bank
- EBG: Ecobank Ghana
- GCB: Ghana Commercial Bank
- SPSS- Statistical Package for Social Solution

CHAPTER TWO - LITERATURE REVIEW

2.0 INTRODUCTION

This chapter reviews various published journals relating to liquidity management and profitability taking into consideration various concepts and theories relating to the research topic which are: Definitions of Liquidity, Definitions of Liquidity management, Objectives of liquidity management, Liquidity management techniques, Principles of liquidity management, Importance of Liquidity Management in banks and Challenges of Liquidity management.

2.1 DEFINITIONS OF LIQUIDITY

Basel (2008) defined liquidity as the ability of a bank to increase its fund in assets and meet obligations as they become due, without incurring unacceptable losses. Hirshleifer (1968), calls liquidity as asset's capability over time of being realized in the form of funds available for immediate consumption or reinvestment in the form of money. Liquidity signifies the ability of a financial firm to keep up all the time a balance between the financial inflows and outflows over the time. (A & Ganga, 2009).

Liquidity refers to the availability of instrumentals that can be used to transfer wealth across periods (Holmstrom Tirole (1998)). John Maynard Keynes (1936) says “Liquidity is dependent on the prompt realizability of an asset at short notice without loss.” The term ‘Liquidity’ means the debt-paying ability of a concern when it becomes due. Liquidity is the ability of the organization to augment its future cash flows (Maness & Zietlow, 1998).

Gentry at al (1976) defined liquidity as "The ability to realize value in money - the most liquid among all assets. It has two dimensions –

- The time required to convert the assets into money and
- The certainty of the realized price.

Alwyn Jordan (2001) defined liquidity as a bank's ability to fund increases in assets or meet collateral obligations at a reasonable cost as they fall due without incurring unacceptable losses. Liquidity refers to the "moneyness" of the assets and liabilities, that is, the ease with which they can be converted into cash or cash equivalents within a given period of time at the discretion of the holder or due to maturity (Niehans and Hewson, 1976). Traditionally, liquidity has been defined as: the capacity of financial institutions to finance increases in their assets and comply with their liabilities as these mature (Miguel Delfiner et al (2006)). The Availability of Cash in the Amount and at the Time Needed at a Reasonable Cost (Peter S. Rose, 2002). Liquidity characterizes the financial situation of the company; its ability to convert assets into cash or to obtain cash to meet short-term obligations (Pacurari, 2008).

In view of the above, the various authors see liquidity as the critical attribute of liquid assets. Banking liquidity represents the capacity of a bank to finance its transactions efficiently. According to the authors, liquidity is the ability of an institution to fund increases in assets or meet obligations as they come due, without incurring unacceptable losses. Liquidity is a distillation of all bank activities. A bank's liquidity exists in its assets readily convertible to cash; net operating cash flows, and its ability to acquire funding through deposits, borrowings, and capital injections. "Liquid assets" means cash on hand, current account balance and

currency deposits with the Banks. In furtherance, liquid assets are composed of cash and bank balances, debtors and marketable securities. Liquidity is even more crucial for financial institutions because they are particularly vulnerable to unexpected and immediate payment demands. Liquidity management involves prudently managing assets and liabilities (on- and off-balance sheet), both as to cash flow and concentration, to ensure that cash inflows have an appropriate relationship to approaching cash outflows.

2.2 DEFINITIONS OF LIQUIDITY MANAGEMENT

Liquidity management is the activity a bank should carry out to ensure their holding of liquid assets are sufficient to meet its obligations as they fall due including unexpected transactions. (Barbara Casa, Introduction to Banking Pg. 486). Liquidity management in the business sector is defined as "the allocation of liquid resources over time to meet resource needs for payment of obligations due and for various investments that management undertakes to maximize shareholder wealth" (Gallinger & Healey 1987, Pg.3). Liquidity management includes forecasting, and managing cash flow and the cash position, and ideally should include setting and managing toward a preferred cash position, or liquidity target (John Zietlow et al (2007). Liquidity management is the ability to meet financial obligations at a reasonable cost in a timely manner. The essence of liquidity is having cash when you need it (Scott Albinson, 2004). Liquidity management therefore involves the strategic supply or withdrawal from the market or circulation the amount of liquidity consistent with a desired level of short-term reserve money without distorting the profit making ability and operations of the bank. (Agbada et al 2013).

As discussed above, the various definitions are concerned with the availability of funds in banks to meet an unexpected transaction as they fall due. They also stressed liquidity management as also an on-going process to ensure that cash needs can be met at reasonable cost in order for a bank to maintain the required level of reserves at the BOG and to meet expected and contingent cash needs. Practically, liquidity management in commercial banks is surrounding both sizes of the prospective needs for liquidity at any giving time and the availability of sources of liquidity sufficient to meet them. Liquidity management refers to the planning and control necessary to ensure that banks maintains enough liquid assets either as an obligation to the customers of the bank so as to meet some obligations incidental to survival of the bank.

2.3 OBJECTIVES OF LIQUIDITY MANAGEMENT

Gallinger and Healey (1987, pp, 6-7) posits that the most fundamental objective of liquidity management is to ensure corporate solvency. Thus, from a liquidity perspective, value maximization is secondary to survival. However, the goals are closely related. The key issues in liquidity management are to minimize insolvency risk by:

- Determining how much to invest in each component of current assets and allocate funding needs to each component of current liabilities, and
- Managing these investments and allocations effectively and efficiently.

Kim, Mauer & Sherman (1998) found that companies start to build liquidity to meet favourable future investment prospective. It is also suggested in the literature that a connection between financial constraints and firms' liquidity demand exists.

Kevin Davis (2008) stated that the overall objective of Liquidity Management is that it ensures the ability of bank to meet all payment obligations when they come due. Jan Frazer (2004) says that the objectives of the Bank's liquidity management are to ensure that the banking system has sufficient liquidity to enable the payment settlement system to function effectively and to avoid large swings in the volume of available cash that would undermine the implementation of monetary policy.

Bankakademie (2000) stated that the objectives of liquidity management are to:

- Honor all cash outflow commitments on a daily and ongoing basis,
- Minimize the cost of foregone earnings on idle liquidity,
- Satisfy minimum reserve requirements and other regulatory liquidity standards,
- Avoid additional cost of emergency borrowing and forced liquidation of assets.

Benno J. Ndulu et al (2008) stated the objectives of liquidity management as:

- Ensure that banks and financial institution have in place liquidity management policies adequate to enable them meet all know obligations and commitments and plan for unforeseen development
- Ensure that banks and financial institution implement liquidity ; management standards that conform to established international norms ; and
- Maintaining public confidence by ensuring that banks and financial institution have sufficient liquidity at all times.

As discussed above, Gallinger and Healey (1987, pp, 6-7), Kim, Mauer & Sherman (1998) see the objective of liquidity management in banks as a way of reducing insolvency and managing

investment in the bank. The survival of commercial banks depends greatly on how liquid they are, since illiquidity being a sign of imminent distress can easily erode the confidence of the public in the banking sector and results to deposit. Maintaining an adequate level of liquidity depends on the institution's ability to efficiently meet both expected and unexpected cash flows and collateral needs without adversely affecting either daily operations or the financial condition of the institution. The authors analyzed the objectives of liquidity management as financial institutions implementation strategies of "self-insurance" or "purchased insurance" against shortfalls of cash required to meet current and forthcoming obligations in a variety of ways.

2.4 LIQUIDITY MANAGEMENT TECHNIQUES.

Each bank has to have an approved strategy for the operational management of the liquidity, a strategy that must be communicated within the organization, because in many banks, the liquidity management is no longer the entire responsibility of the treasury (Dănilă, Dănilă, Anghel, 2002, p. 105). Vishnani and Bhupesh (2007) affirmed that the most common measure of liquidity is current ratio and return on investment for profitability. The current ratio is used to test a firm's liquidity, that is, its current or working capital position by deriving the proportion of the firm's current assets available to cover its current liability. A low current ratio means smaller investment in current assets which means a high rate of return on investment for the firm, as no unused investment is tied up in current assets. Berger and Bouwman (2008) suggested a method for measuring liquidity and have applied it to the US banking institution.

They propose a classification of all balance sheet items as liquid, semi-liquid and illiquid. This applies to all items in a bank's assets, liabilities, equity, and off-balance sheet activities. They use different classifications for the items, leading to four different measures of liquidity management. Their specifications use a classification based on the categories or maturities of items ("cat" or "mat" measures) and include or exclude off balance sheet items ("fat" or "nonfat" measures).

According to Barbara Casu et al (2006), in measuring and managing a bank's liquidity exposure, the following techniques may be used:

- Cash flow projections of daily liquidity positions.
- Cash flow projections of daily liquidity sources
- Scenario analysis and simulation models
- Liquidity gap analysis

Scott Albinson (2003) proposed three (3) useful techniques for measuring liquidity, which are:

- Liquidity gap analysis: It provides analytical framework for measuring future funding needs by comparing the amount of assets and liabilities maturing over specific time intervals.
- Cash flow forecasting: It indicates the likely future movement of cash in and out of the business over future period.
- Scenario planning: It considers possible future events by analyzing alternative possible scenarios.

Lee Buffing (2007) outlined the steps to cash flow forecasting of liquidity technique:

- Decide on the time period your forecast should cover.
- Review your accounting history for revenue and expenditures
- Create a simple, one-page forecasting form to begin tracking your revenue, expenditures and investments.
- Start with what you know and gradually build up the reliability of your forecast.
- Monitor and fine tune your forecast. Beware of fluctuations in near term numbers.

K. Ann McKibbon et al (2013) outlined the steps to liquidity gap analysis of liquidity technique:

- Listing of characteristic factors (competencies, performance levels) of the present situation.
- Cross-lists factors required to achieve the future objectives ("what should be"), and then
- Highlights the 'gaps' that exist and need to be 'filled.'

James Graham (2011) outlined the steps to scenario planning of liquidity technique:

- Scan internal and external environment
- Build possible scenarios
- Plan response
- Identify realistic futures
- Capitalize on those futures

To measure liquidity, Farris & Hutchison (2002) posited that corporate liquidity is examined from two distinct dimensions, the static or dynamic views. The static view is based on commonly used traditional ratios, such as current ratio and quick ratio, calculated from the balance sheet amounts. These ratios measure liquidity at a given point in time whereas dynamic view measures ongoing liquidity from the firm's operations. As a dynamic measure of the time it takes a firm to go from cash outflow to cash inflow which is measured by cash conversion cycle.

From the various techniques outlined, the purpose of liquidity technique is to measure bank's current liquidity position and its ability to meet future funding needs. These liquidity techniques give banks the ability to meet future funding needs by analyzing its projected cash inflows and outflows. Scott Albinson (2004) and Barbara Casu (2006) techniques for measuring and managing liquidity were slightly the same. These techniques are to be observed at all times and further reviewed from time to time, to reflect changing circumstances. According to the authors, an important aspect of managing liquidity is making assumptions about future funding needs. While certain cash inflows and outflows can be easily calculated or predicted, banks must also make assumptions about future liquidity needs, both in the very short-term and for longer time periods. One important factor to consider is the critical role a bank's reputation plays in its ability to access funds readily and at reasonable terms. For that reason, bank staff responsible for managing overall liquidity should be aware of any information (such as an announcement of a decline in earnings or a downgrading by a rating agency) that could have an impact on market and public perceptions about the soundness of the institution.

2.5 PRINCIPLES OF LIQUIDITY MANAGEMENT

A financial institution having a proper set of liquidity management principles will improve profits; Banks should formally adopt and implement these principles for use in the overall liquidity management process. Fernando De Peralto (2000) outlined the "Principles for Sound Liquidity Management and Supervision":

- Banks must develop a structure for liquidity management.
- Banks must measure and monitor net funding requirements.
- Banks should manage market access. Each bank should periodically review its efforts to establish and maintain relationships with liability holders, to maintain the diversification of liabilities, and aim to ensure its capacity to sell assets.
- Banks should have contingency plans in place that address the strategy for handling liquidity crises and which include procedures for making up cash flow shortfalls in emergency situations.
- Banks should manage their foreign currency liquidity.
- Each bank must have an adequate system of internal controls over its liquidity risk management process.
- Each bank should have in place a mechanism for ensuring that there is an adequate level of disclosure of information about the bank in order to manage public perception of the organization and its soundness.

Thornton (1802) and Bagehot (1873) established the principles that govern the extension of central bank liquidity. Central banks:

- Should lend early and freely to solvent institutions
- Against good collateral at a penalty rate.**8** Since idiosyncratic
- Liquidity shocks can lead to contagion and
- Affect the financial system as a whole, the provision of
- Emergency liquidity to individual banks contributes to financial stability

JPMorgan Chase (2004) developed five key principles to effectively managing liquidity that banks should be aware of:

- Understand and segment cash needs then determine appropriate liquidity requirement.
- Establish appropriate investment guidelines focusing on availability and safety.
- Select investment types within guidelines that are appropriate for each cash category.
- Establish and verify diversified contingent funding sources.
- Maximize the transparency and efficiency of the cash position across geographies and legal entities.

Policies and procedures should include the following:

- Delineated lines of responsibility. Identification of individuals or committees responsible for managing and monitoring liquidity risk.

- An overall liquidity strategy. The liquidity strategy should define the general approach the bank will follow in managing liquidity.
- Quantitative guidelines and limits to ensure adequate liquidity.
- Internal control procedures to ensure adherence to policies and procedures that address the integrity of the liquidity management process. (Scott M. Albinson, 2003)

From the various principles outlines, banks should have principles for identifying, measuring, and controlling liquidity. These should translate the bank's goals, objectives, and risk tolerances into operating standards. According to the authors mentioned above, these principles assign responsibility for managing liquidity throughout the bank and also help communicate how much emphasis a bank places on asset liquidity, liability gathering, and operating cash flows to meet its day-to-day and contingent funding needs. In addition, the outlined principles also creates an avenue for the bank to identify their primary objectives and methods to use in meeting daily operating cash outflows, providing for seasonal and cyclical cash flow fluctuations, and addressing various adverse liquidity scenarios. Effective liquidity management, however, starts with the development of written policies and procedures, and the establishment of minimum acceptable levels of liquidity. These policies should clearly define an association's strategy for managing liquidity, delineate areas of management responsibility, and establish a process for measuring, monitoring, and managing liquidity.

2.6 IMPORTANCE OF LIQUIDITY MANAGEMENT IN BANKS

Liquidity plays a significant role in the successful functioning of a business firm. A firm should ensure that it does not suffer from lack-of or excess liquidity to meet its short-term compulsions. A study of liquidity is of major importance to both the internal and the external analysts because of its close relationship with day-to-day operations of a business (Bhunia, 2010). A weak liquidity position poses a threat to the solvency as well as profitability of a firm and makes it unsafe and unsound. Brooks (2007) says that liquidity is a significant variable for banks in determining their lending behavior in response to tighter monetary conditions. Liquidity management helps achieve the desired tradeoff between liquidity and profitability (Raheman et al, 2007).

Liquidity is necessary for banks to compensate for expected and unexpected balance sheet fluctuations and to provide funds for growth (Greuning and Bratanovic, 2009). According to Eljelly (2004), efficient liquidity management associates planning and controlling current assets and current liabilities in an efficient manner so as to eliminate the risk of non-payment of dues for short term requirements and it also avoids excessive investment in these assets. Adequate liquidity helps a commercial bank to meet customers' withdrawal and or demand for loans. This reduces the possibility of providing financing under very unfavorable loan agreement restrictions and at relatively high interest costs. (Amarachukwu Ona, 2003).

Lim Yen Suan (2005) developed three importance of liquidity management:

- Improved cash flow
- Enhanced profitability
- Reduced reliance on short-term debt

As discuss above, the various authors view on the importance of liquidity management in banks are as follows: It helps banks in identifying the optimum point or the level at which a commercial bank can maintain its assets in order to optimize profit and at the same time meets the financial demands of its depositors by maintaining adequate liquidity. In addition, it assists commercial banks in trading off between risk and return; and liquidity and profitability. It also serves as a tool through which commercial banks avoid over liquidity and under-liquidity and their consequences.

Liquidity shortage, no matter how small, can cause great damage to a financial institution's operations and customer relationship in particular. Every business relies on its clients to succeed and so it is a strategic business plan to build good client relationships. Liquidity crisis, if not properly managed can destroy those relationships instantly. In order to avoid liquidity crisis, management of businesses and financial institutions in particular needs to have a well-defined policy and established procedures for measuring, monitoring, and managing liquidity. Managing liquidity is therefore a core daily process requiring managers to monitor and project cash flows to ensure that adequate liquidity is maintained at all times.

2.7 CHALLENGES OF LIQUIDITY MANAGEMENT

There is an opportunity cost associated with the maintenance of those liquid assets and this might affect the overall profitability of the bank. In other words, increasing profitability would tend to reduce firm's liquidity and too much attention on liquidity would tend to affect the profitability (Smith, 1980). Therefore, banks should always strike to maintain a balance between conflicting objectives of liquidity and profitability. The firm's liquidity should not be too high or too low.

In a research made by Maynard and Moore (2006), it was noted that, in periods of high levels of liquidity the fiscal authorities were concerned that banks will utilize excess reserves to engage in 'growth-enhancing' opportunities. The authors determined that in Barbados, excess reserves generally have an inverse relationship to the business cycle, which led them to conclude that commercial banks have a propensity to hold more excess reserves during recessionary periods, which can have the adverse impact of extending a recession. It may be true that the ultimate goal for any firm is to maximize profit, too much attention on profitability may lead the firm into a pitfall by diluting the liquidity position of the organization (Niresh, 2012). Therefore the need to strike a balance between the firm's desire to make profit and the desire to remain liquid cannot be over-emphasized and there arises the issue of liquidity management.

Anderson-Reid (2011) in her analysis of the Jamaican banking system, suggested that excess liquidity poses challenges to the effective implementation of Central Bank liquidity policy, as it enables banks to offer additional credit to customers, despite a very tight monetary policy

position by the Central Bank. Similar sentiments were expressed by Ganley (2004) in his study, which found that a significant build-up in liquidity could lead to an expansion in domestic consumption activity and consequently higher inflation. In addition, Greuning and Bratanovic (2009) indicated that a bank faces liquidity problem when it does not have the ability to efficiently accommodate the redemption of deposits and other liabilities and to cover funding increases in the loan and investment portfolio. These authors go further to posit that a bank has adequate liquidity potential when it can obtain needed funds (by increasing liabilities, securitizing, or selling assets) promptly and at a reasonable cost.

Lim Yen Suan (2005) outlined four challenges of liquidity management:

- Difficulty in organizing an optimal or feasible cash management structure after taking into account the operational and regulatory constraints.
- Inability to forecast short-term and long-term cash requirements.
- Struggle on centralizing and outsourcing cash management decisions.
- Excess cash-in-transit or cash float locked in operational processes.

Sas (2012) stated that banks face challenges in managing their liquidity due to the following:

- No centralized view of liquidity
- Limited analytic capabilities
- Insufficient stress testing
- Overcoming the compliance mindset.

Chikoko Laurine et al (2012) outlined the potential liquidity problems:

- Operating environment;
- Depositors' withdrawal behavior in terms of transaction motives;
- Short term deposits;
- Hyperinflation.

Peter S. Rose outlined the reasons why banks face significant liquidity problems:

- Imbalances Between Maturity Dates of Their Assets and Liabilities
- High Proportion of Liabilities Subject to Immediate Repayment
- Sensitivity of Bank to Changes in Interest Rates
- Central Role in the Payment Process

In addition, looking at the studies above, they were all pertaining to the problem of how to select or identify the optimum point or the level at which a commercial bank can maintain its assets in order to optimize profit and at the same time meets the financial demands of its depositors by maintaining adequate liquidity. This leads to inability to obtain financing from banks due to poor cash flow positions or too high a leverage. No profitable bank operation can hold enough liquidity to cover a sudden mass exodus of depositors. Conversely, a bank that is overly aggressive in minimizing liquidity in order to enhance profits may find that its correspondent banks and depositors will decide to test its liquidity by canceling credit lines and withdrawing deposits precisely when liquidity is already tight.

CHAPTER THREE - RESEARCH DESIGN AND METHODOLOGY

3.0 INTRODUCTION

This chapter deals with the methodology of the study, under the following sub headings: Research Design, Populations, Sample and Sampling technique, Sources of data, Data collection instruments, Data analysis techniques and Organizational profile.

3.1 RESEARCH DESIGN

A Research design encompasses the methodology and procedure employed to conduct scientific research. We adopted the comparative study of Ecobank and Ghana commercial banks. The researcher adopted comparative approach. Comparative research is to identify similarities and differences between social entities. Comparative research seeks to compare and contrast nations, cultures, societies and institutions. (Michael S.Lewis et al, 2004). Comparative approach was used to help the researcher find out more about the problem of liquidity management in both banks. Thus, the use of comparative approach with questionnaires as data collection techniques was very useful in the study.

3.2 POPULATION

Malhotra (2007) define population as the aggregate of all the elements, sharing some common set of characteristics that comprises the universe for the purpose of the research problem. The study population included the entire Universal banking industry in Ghana. The banking sector in Ghana comprises twenty seven (27) deposit money banks (DMBs) and 129 rural banks.

Currently all banks in Ghana are operating as Universal Banks which opens endless opportunities to the product range that they may offer. (Price Waterhouse Coopers, 2008).

Out of the twenty seven (27) deposit money banks, the targeted banks were Ecobank and Ghana Commercial Banks in Kumasi. Out of all the banks in Ghana, we selected Ecobank Ghana and Ghana Commercial Bank for our research because:

- Ecobank Ghana (EBG) has been named "The best bank in Ghana "by the leading international finance magazine, Euro Money in 2012. Ecobank offers secured loans to businesses with low interest charges according to the latest annual percentage rate released by Bank of Ghana.
- Ghana commercial bank Ltd. (GCB) has been awarded the Best Bank in Ghana award at the prestigious Global Finance World Best Bank Awards for its introduction of free ATMs and debit cards and the broadening of banking services to Ghanaians.
- Both selected banks have large customer base and good customer relation. Customers have easy access to the selected banks due to their numerous branches that cuts across Ghana and beyond.
- Both selected banks also provide wealth Management services. These services cover the following business activities: private banking, investment and financial advisory services and asset management for pension funds and employee savings schemes

3.3 SAMPLE AND SAMPLING TECHNIQUES

A sample is a portion, or part, of the population of interest. According to Malhotra (2007), a sample is a subgroup of the elements of the population selected for the participation in the study. There were total of four (4) managers in Ecobank Ghana Adum Kumasi and total of 5(5) in Ghana Commercial Bank Suame Kumasi. The study was conducted using the four (4) top managers of Ecobank (Credit manager, branch manager, Portfolio Manager and relationship officer) in Adum Kumasi and Ghana Commercial banks (Transformation Officer, Credit Risk manager, Operating Officer, and Finance Officer) in Suame roundabout Kumasi. The main sampling technique employed for the questionnaire administration of the study was purposive. The (4) top managers from both selected banks were chosen in order to control, monitor errors and to reduce cost in terms of human resources and other expenses. This was used to facilitate time.

3.4 SOURCES OF DATA

The source of data used or the purpose of this research is both primary and secondary data source and they are discuses below:

3.4.1 Primary Data

The major source of primary data involves information received form questionnaire and observation of the activity of the reference bank. The questionnaires were administered to bank managers of the bank.

3.4.2 Secondary Data

The source of this data was used extensive to enable the researcher gathered enough information for the analysis. The secondary data that was used include the various BOG publications like annual report, financial review, as well as the use of internet. These are available on the bank and school libraries, income statements and balance sheets of the sample banks.

3.5 DATA COLLECTION INSTRUMENTS

The research employed questionnaires to collect the data. The questionnaires were administered to four (4) top managers of the two sampled banks. The questions were made of structured questions. This method was used to gather definite answers to specific questions related to the area of study. This method was to seek the respondents' opinions and views on specific areas of the study, hence the need to provide definite answers and suggestions where necessary. Both open and Closed-ended questions were used where the respondents can choose one or more alternative answers. This made the questionnaires easy to complete in a short space of time by the respondents.

3.6 DATA ANALYSIS TECHNIQUES

SPSS software was used for the analysis of the data. In the method of data collection, the following devices were employed;

1. Percentage
2. Tables
3. Pie charts

4. Bar charts

5. Correlations

CHRISTIAN SERVICE UNIVERSITY COLLEGE

DEPARTMENT OF BANKING AND FINANCE

TOPIC: LIQUIDITY MANAGEMENT IN BANKS
A CASE STUDY ON GHANA COMMERCIAL BANK AND ECOBANK

3.4.1 QUESTIONNAIRE

Please, answer the questions below. Respondents are being assured that any information they will provide will be treated as strictly confidential.

A) RESPONDENT'S PROFILE.

1. Gender ….Male ☐ Female ☐

2. Position or status ……

   (A) Clerk – B Signatory ☐

   (B) Officer ☐

   (C) Manager ☐

3. Marital status…. Married ☐ Single ☐

4. How long have you been working in Ecobank Ghana / Ghana Commercial Bank?

(A) 1 – 5Yrs ☐

(B) 6 – 10Yrs ☐

(C) 11 – 20Yrs ☐

(D) 20 Yrs and above ☐

B) MAIN QUESTIONS:

1. What liquidity technique do you adopt to manage your liquidity position?

   A. Cash flow Projections ☐ B. Scenario Planning ☐

   B. Maturity gap analysis ☐ C. Others ☐

2. Outline the processes or steps of the liquidity technique you ticked in question 1.

3. Has liquidity management helped you in anyway?

   A. Yes ☐ B. No ☐

4. If your answer to question 3 is yes please select.

   ☐ Liquidity management has helped the bank to avoid liquidity crisis in a well-defined policy and established procedures for measuring, monitoring and managing liquidity.

☐ Liquidity management has served as a tool through which our banks avoid over liquidity and under-liquidity and their consequences.

5. If your answer to question 3 is No please explain.

6. What are the major challenges you face when managing your liquidity?

Please Select

☐ The problem of selecting or identify the optimum point at which banks can maintain its assets in order to optimize profit and at the same time meets the financial demands of its depositors by maintaining adequate liquidity.

☐ Simple, long term lack of investment

☐ Poor processes to capture cash movements from across the bank

☐ Imbalance between maturity date of their assets and liabilities

☐ Struggle on centralizing and out-sourcing cash management decisions

☐ Uncertainty

7. Is your liquid assets positively related to your profit?

A. Yes ☐ B. No ☐

8. If your answer to question 7 is yes please select.

☐ Liquidity assets can readily be sold for cash with negligible prize depreciation

☐ It can be converted into cash equivalent at the discretion of the holder or due maturity.

☐ Liquidity assets can be used in the form of vault cash

☐ Liquidity assets include money market instruments, invest grade securities and deposit with other financial institution.

☐ Protection against loss

☐ Minimal Credit Risk

9. If your answer to question 7 is No please explain.

10. What was your profitability level in the following years?

2007 ……..

2008 ……..

2009 ……..

2010.……

2011 …….

11. What was your liquidity level in the following years?

2007 ……..

2008……..

2009……..

2010.……

2011…….

12. What possible means can your liquidity be managed to increase profit?

Please select

☐ Balanced scorecards

☐ Contingency planning

☐ Stress testing

☐ Gauging the bank capacity to raise funds quickly from each source

☐ Maturity mismatch analysis

☐ Maintenance of cushion of high liquid assets

☐ Internal control

☐ Liabilities diversification

3.6 ORGANIZATIONAL PROFILE

3.6.1 History of Ecobank Ghana Limited

Ecobank Ghana Limited (EBG) was incorporated on January 9, 1989 as a private limited liability company under the Companies Code to engage in the business of banking. EGH was initially licensed to operate as a merchant bank by the Bank of Ghana on November 10, 1989 and commenced business on February 19, 1990. However, following the introduction of Universal Banking by the Bank of Ghana in 2003, EBG, true to its form as a pacesetter, became the first bank to be granted the universal banking license from the Bank of Ghana.

The bank is a subsidiary of Ecobank Transnational Incorporated (ETI), a bank holding company which currently has thirty-one (31) subsidiaries across Middle Africa. The Ecobank Group is thus in more countries in Africa than any other bank, making it the leading regional banking group in Middle Africa. EBG has grown consistently over the years to become one of the leading banks in Ghana and a well-recognized brand in the Ghanaian banking industry. EGH acquired a universal banking license in 2003 and got listed on the Ghana Stock Exchange (GSE) in July 2006. The Bank has embarked on a medium term strategic shift from a predominantly Wholesale Bank to Retail Bank, and 2008 marked the third year of its strategic transformation.

3.6.2 History of Ghana Commercial Bank

According to www.gcb.com.gh, Ghana Commercial Bank Ltd. started in 1953 as the Bank of the Gold Coast to provide banking services to the emerging nation for socio-economic development. The Bank was to provide special attention to Ghanaian traders, business people and farmers who could not elicit support from the expatriate banks.

In 1957, when Ghana attained independence, Bank of Ghana was established as the Central Bank while the Bank of the Gold Coast was renamed Ghana Commercial Bank to focus solely on commercial banking services. Since then GCB branches have been opened across the length and breadth of the nation tapping the potential of the 10 regions that make Ghana.

In addition, GCB has taken advantage of an enhanced information technology system, to introduce Internet Banking ,Royal Banking, Smart Pay (Fee Payments), Kudi Nkosuo, GCB Inland Express Money Transfer, International Money Remittance Payments, GCB Kidistar Account and MasterCard. GCB now has over 150 branches and 11 agencies throughout the country.

CHAPTER FOUR: DATA PRESENTATION AND ANALYSIS

4.0 INTRODUCTION

This chapter provides information on the data collection procedure adopted, analysis of the data and findings.

4.1 PERSONAL DATA OF RESPONDENTS

With a questionnaire as the main research tool to gather data from the respondents, the first section was intended to gather data on the background of the respondents. Frequency tables are used in analyzing the data gathered from the respondents.

4.1.1 Sex Distribution of Respondents

Out of 8 Respondents, 62.5% were Male and 37.5% Female as indicated on table 4.1 .The Sex distribution showed that both Male and Female were represented in the study as shown below.

Table 4.1 Sex Distribution of Respondents

Category	Frequency	Percentage (%)	Cum percent (%)
Male	5	62.5%	62.5%
Female	3	37.5%	100%

Total	8	100%	100%

Source: *Field Survey, May 2013.*

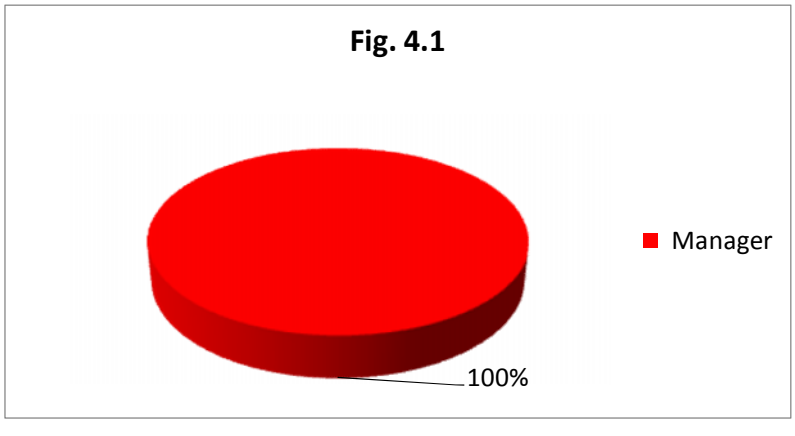
Table 4.2 Position or Status of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Manager	8	100.0	100.0	100.0
	Total	8	100.0	100.0	100.0

Source: *Field Survey, May 2013.*

4.1.2 Position/Status of Respondents

This Fig 4.1 shows all the Respondents were Managers of the Selected Banks under study.



Source: *Field Survey, May 2013.*

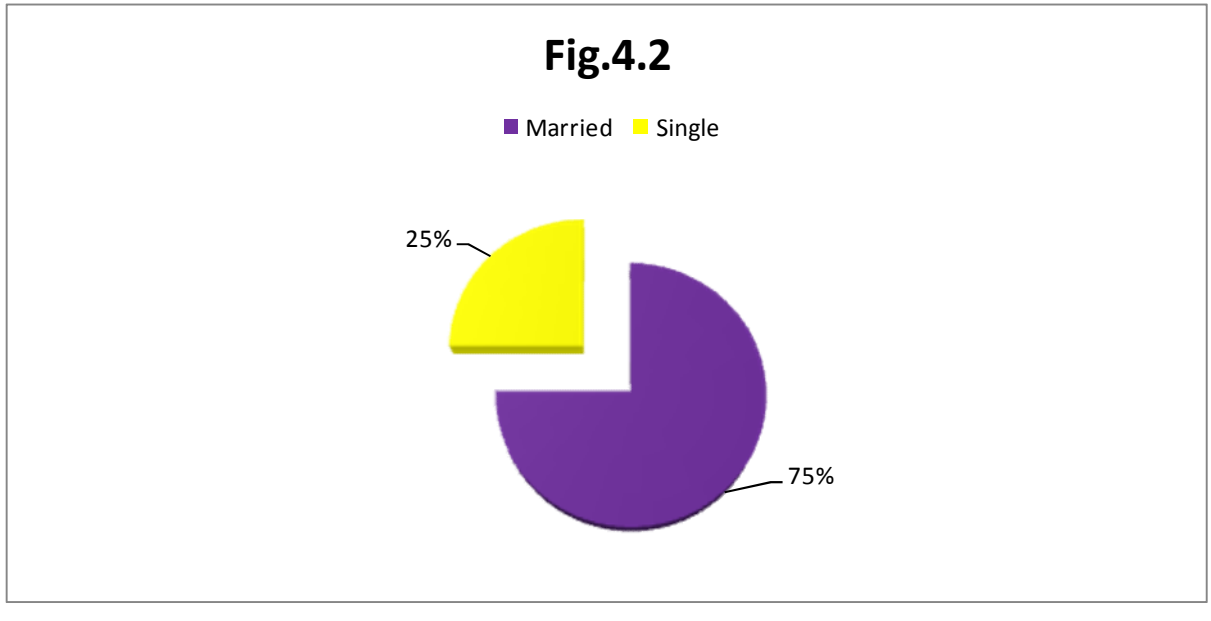
Table 4.3 Marital Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Married	6	75.0	75.0	75.0
	Single	2	25.0	25.0	100.0
	Total	8	100.0	100.0	

Source: *Field Survey, May 2013.*

4.1.3 Marital Status of Respondents

The study also took interest of the Marital Status of the Respondents. Of the 8 Respondents, 75% of them were Married and 25% are Single. This is indicated in Fig 4.2 below



Source: *Field Survey, May 2013.*

Respondents that are Married are 75% and Unmarried are 25%. This implies that there are more Married Managers than Unmarried ones.

4.2 NUMBER OF YEARS IN THE COMPANY

This variable was analyzed to reveal the Number of Years our Respondents have been working in the selected Banks.

Table 4.4 Number of Years in the Company

Ages	Ecobank	G.C.B
1-5yrs	3	2
6-10yrs	1	1
11-20yrs	0	1
20 and above	0	0
Total	4	4

Source: *Field Survey, May 2013.*

Respondent of both selected banks that have been in the organization between l and 5 yrs are 62.5% those between 6 and 10 yrs are 25% those between 11 and 20yrs are 12.5% while 20yrs and above are none. It shows that those that there have experiences from 1 - 5yrs.

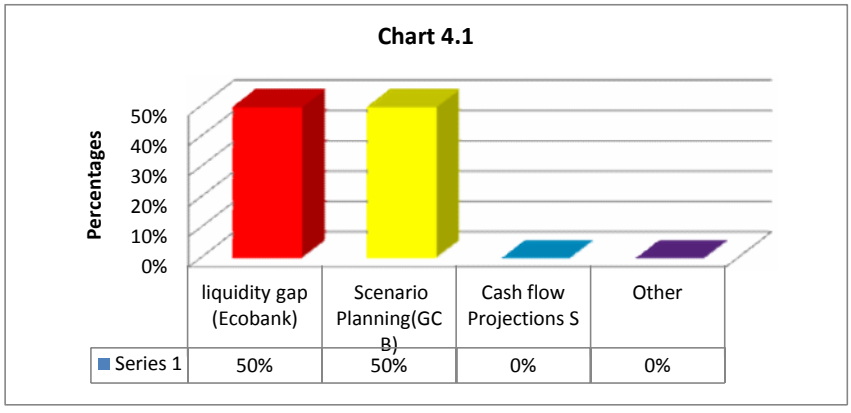
Table 4.5 Respondents' view on the Liquidity Technique Adopted

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Liquidity gap	4	50.0	50.0	50.0
	Scenario Planning	4	50.0	50.0	100.0
	Total	8	100.0	100.0	

Source: *Field Survey, May 2013.*

4.3 RESPONDENTS' VIEW ON THE LIQUIDITY TECHNIQUE ADOPTED

The study of this nature on liquidity management must also put into consideration the types of liquidity management technique the various banks under study use. Respondents of Ecobank that adopt liquidity gap analysis are 50%, Respondents of GCB that adopt scenario planning are 50% while those that adopt Cash flow Projections are none.



Source: *Field Survey, May 2013.*

Ecobank **GCB**

4.4 PROCESSES OF THE LIQUIDITY TECHNIQUE IN ECOBANK AND GHANA COMMERCIAL BANK

4.4.1 Ecobank Ghana – Liquidity Gap Analysis of Liquidity Technique Steps:

Step 1. Distribute cash flows over respective time horizons

Step 2. Express net cumulative gap within the same time horizon as a % to Total Liabilities

Step 3. Set Warning Gap limits for deficit positions

Step 4. Set Target Gap limits to control mismatches

Step 5. Device a framework to achieve mismatches within target gap limits

4.4.2 Ghana Commercial Bank - Scenario Technique Steps:

Step 1 The starting point for all scenarios is to project future cash outflows on all product classes based on the following assumptions underpinning the scenario

-All assets are rolled over and need to be funded

-All liabilities roll off at maturity (renewal ratio = 0%)

Step 2 Determine the rollover vector per product class for liabilities representative

Step 3 Assess the liquidity gap after the partially renewal of liabilities as per Step 2.

Step 4 Asset liquidations and counterbalancing of the net funding requirement

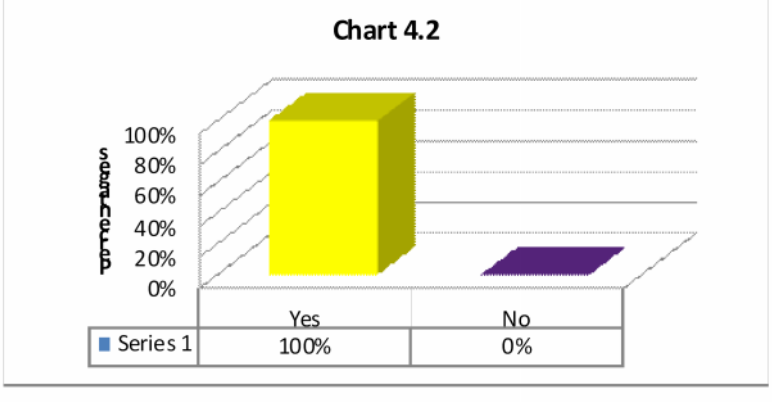
Step 5 Review stress testing results to determine timeframe of effective standby liquidity.

Table 4.6 Benefits of Liquidity Management to the Selected Banks

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	8	100.0	100.0	100.0

Source: *Field Survey, May 2013.*

4.5 BENEFITS OF LIQUIDITY MANAGEMENT TO THE SELECTED BANKS.



Source: *Field Survey, May 2013.*

Chart 4.2 shows that 100% of the Respondents agreed that they Benefit from Liquidity Management.

GCB and Ecobank

Table 4.7 Respondents view on the Benefits of Liquidity Management

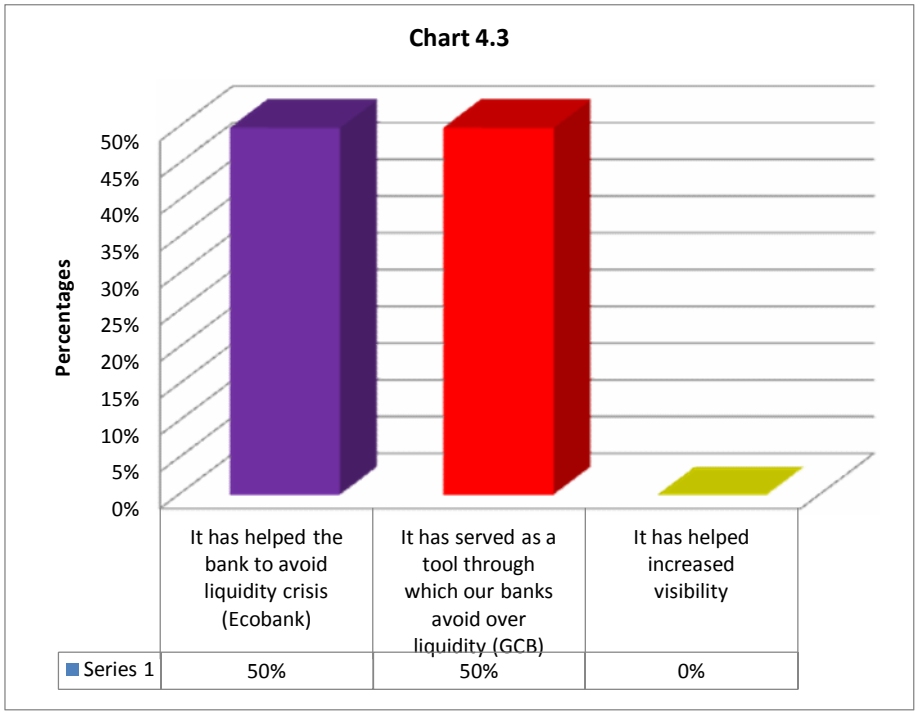
	Frequency	Percent	Valid Percent	Cumulative Percent

Valid	Liquidity management has helped the bank to avoid liquidity crisis in a well-defined policy and established procedures for measuring, monitoring and managing liquidity.	4	50.0	50.0	50.0
	Liquidity management has served as a tool through which our banks avoid over liquidity and under-liquidity and their consequences.	4	50.0	50.0	100.0
	Total	8	100.0	100.0	

Source: *Field Survey, May 2013.*

4.6 RESPONDENTS VIEW ON THE BENEFITS OF LIQUIDITY MANAGEMENT

Chart 4.3 shows the significant benefit of liquidity management to both selected banks. 50% of respondents from Ecobank agreed that liquidity management has helped the bank to avoid liquidity crisis in a well defined policy and established procedures for measuring, monitoring and managing liquidity while 50% of respondents from Ghana Commercial bank agreed that liquidity management has served as a tool through which their banks has avoided over liquidity and under liquidity and their consequences.



Source: *Field Survey, May 2013.*

GCB

Ecobank

Table 4.8 Challenges of Liquidity Management in Selected Banks.

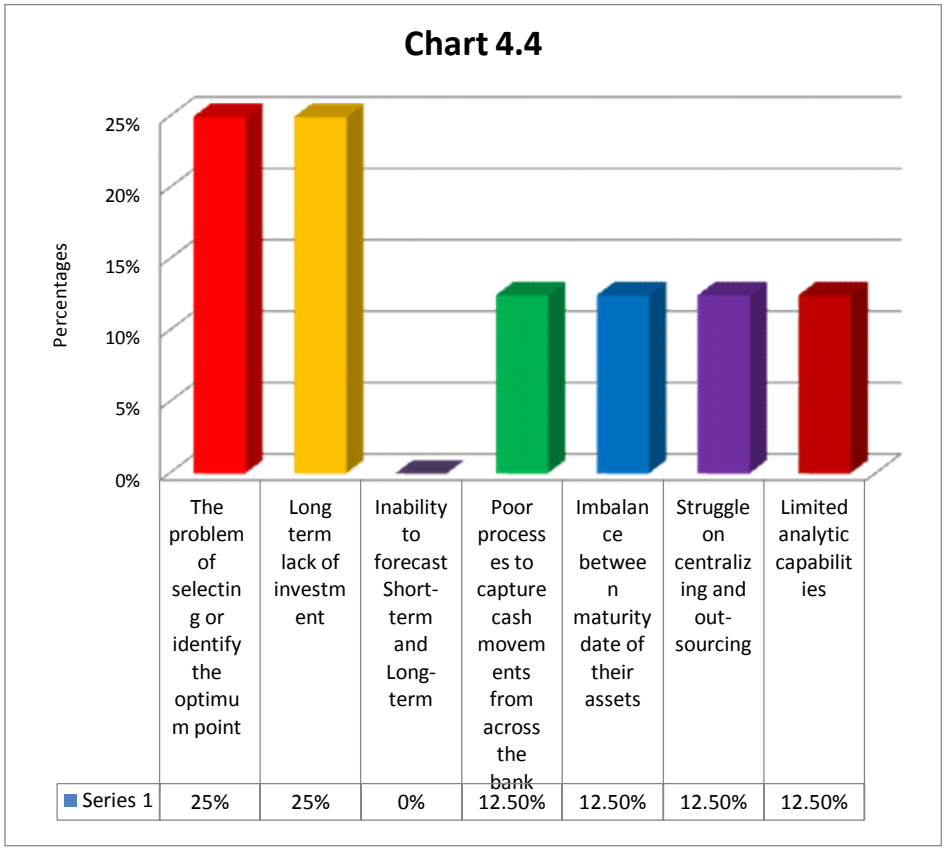
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	The problem of selecting or identify the optimum point at which banks can maintain its assets in order to optimize profit and at the same time meets the financial demands of its depositors by maintaining adequate liquidity.	2	25.0	25.0	25.0

Simple, long term lack of investment	2	25.0	25.0	50.0
Poor processes to capture cash movements from across the bank	1	12.5	12.5	62.5
Imbalance between maturity date of their assets and liability	1	12.5	12.5	75.0
Struggle on centralizing and out-sourcing cash management decisions	1	12.5	12.5	87.5
Limited analytic capabilities	1	12.5	12.5	100.0
Total	8	100.0	100.0	

Source: *Field Survey, May 2013.*

4.7 CHALLENGES OF LIQUIDITY MANAGEMENT IN SELECTED BANKS.

The chart 4.4 shows the various Liquidity Management Challenges to both Selected Banks.



Source: *Field Survey, May 2013.*

Ecobank **GCB** **Ecobank**
GCB **Ecobank** **GCB**

Table 4.9 Respondents view on if their Liquid Assets are Positively Related to Profitability

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	8	100.0	100.0	100.0

Source: *Field Survey, May 2013.*

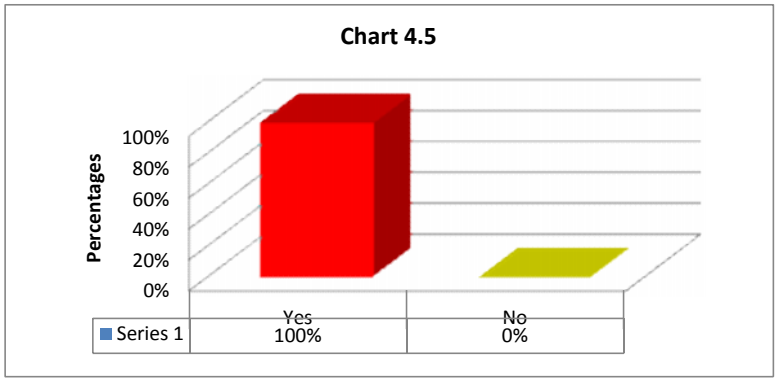
Table 4.9.1 Respondents view on Benefits of Liquid Assets

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Liquidity assets consist of cash assets plus other liquid assets that can readily be sold for cash with negligible prize depreciation	1	12.5	12.5	12.5
	It is the ease with which assets can be converted into cash equivalent at the discretion of the holder or due maturity.	1	12.5	12.5	25.0
	Liquidity assets can be used in the form of vault cash	3	37.5	37.5	62.5
	Liquidity assets include money market instruments, invest grade securities and deposit with other financial institution.	1	12.5	12.5	75.0
	Protecting against loss.	1	12.5	12.5	87.5
	Minimal Credit Risk	1	12.5	12.5	100.0
	Total	8	100.0	100.0	

Source: *Field Survey, May 2013.*

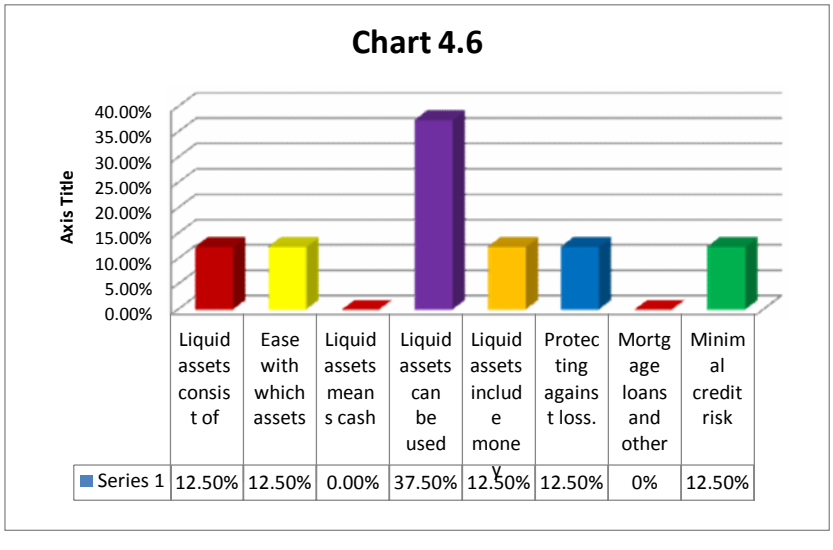
4.8 RESPONDENTS VIEW ON IF THEIR LIQUID ASSETS ARE POSITIVELY RELATED TO PROFITABILITY

100% of the Respondents agreed that their Liquid Assets are Positively Related to their Profit.



Source: *Field Survey, May 2013.*

4.9 RESPONDENTS VIEW ON BENEFITS OF LIQUID ASSETS



Source: *Field Survey, May 2013.*

Ecobank GCB Ecobank GCB
GCB Ecobank GCB Ecobank

4.9.1 PROFITABILITY LEVEL OF ECOBANK AND GHANA COMMERCIAL BANK

Table 4.9.2 shows the Respondents view of the Profitability level of both Selected Banks in the following years.

Table 4.9.2 Profitability level of Ecobank and Ghana Commercial bank

Year	Ecobank	G.C.B
2007	64,666,000	173,691,280,000
2008	84,738,000	203,863,665,000
2009	205,413,000	198,830,726,000
2010	227,646,000	245,148,956,000
2011	262,599,000	178,240,000

Source: *Field Survey, May 2013.*

Table 4.9.3 Level of Liquidity of Ecobank and Ghana Commercial

Year	Ecobank GH¢	G.C.B GH¢
2007	651,817,000	1,121,126,269,000
2008	895,314,000	1,604,711,857,000
2009	1,344,178,000	1,917,083,201,000
2010	1,480,778,000	2,052,323,331,000
2011	2,086,395,000	2,409,422,000

Source: *Field Survey, May 2013.*

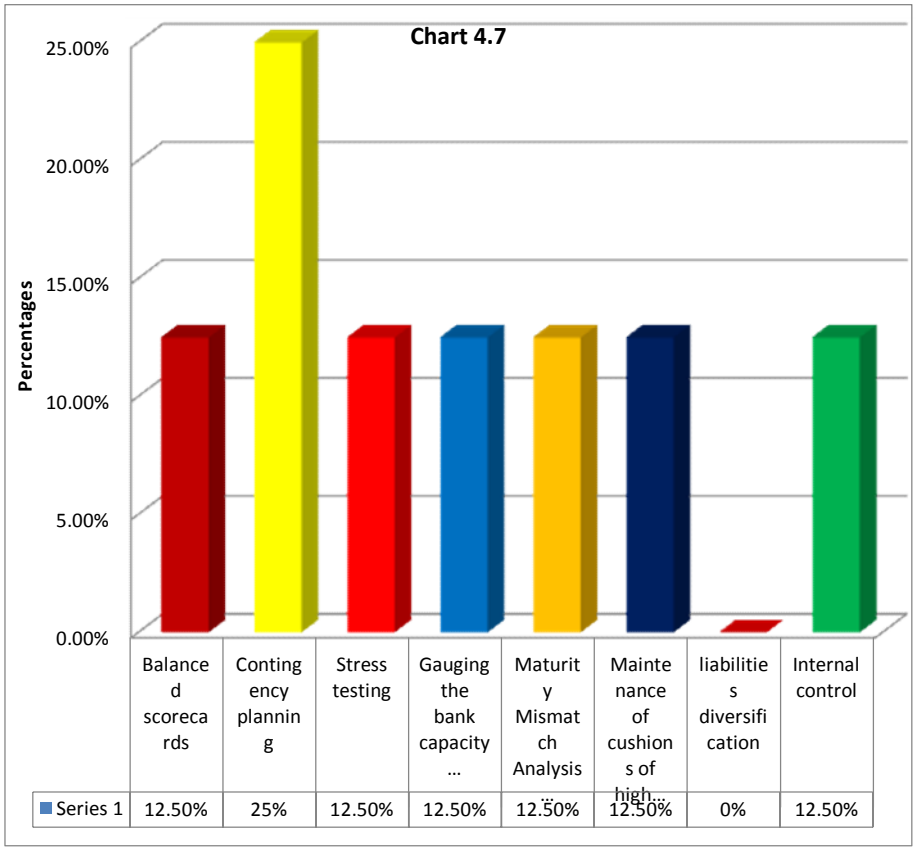
Table 4.9.4 Means of Managing Liquidity to increase Profit of both Selected Banks

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Balanced scorecards	1	12.5	12.5	12.5
	Contingency planning	2	25.0	25.0	37.5
	Stress testing	1	12.5	12.5	50.0
	Gauging the bank capacity to raise funds quickly from each source.	1	12.5	12.5	62.5
	Maturity mismatch analysis	1	12.5	12.5	75.0
	Maintenance of cushion of high liquid assets	1	12.5	12.5	87.5
	Internal control	1	12.5	12.5	100.0
	Total	8	100.0	100.0	

Source: *Field Survey, May 2013.*

4.9.2 MEANS OF MANAGING LIQUIDITY TO INCREASE PROFIT OF BOTH SELECTED BANKS.

Chart 4.5 shows the various Means by which both Selected Manage their Liquidity to increase Profit.



Source: *Field Survey, May 2013.*

Ecobank **GCB** **Ecobank** **GCB**

GCB **Ecobank** **GCB** **Ecobank**

4.9.3 5 YEARS HISTORICAL INFORMATION OF THE FINANCIAL STATEMENT

ECOBANK GHANA LIMITED

2007	2008	2009	2010	2011
ASSETS	**GH¢'000**	**GH¢'000**	**GH¢'000**	**GH¢'000**	**GH¢'000**
• Cash and Cash Balances with central bank	48,273	69,797	104,162	232,856	144,237
• Financial assets held for trading - *Equity instruments*	8,234	5,092	2,540	1,851	725
• Available-for-sale financial assets - Equity instruments	5,804	35,182	24,363	17,360	10,872
• Loans and receivables	288,694	401,531	456,159	496,043	849,893
• Held-to-maturity investments	-	-	-	3,959	4,240
• *Debt instruments*	86,468	89,679	268,534	468,974	573,295
• Loans and advances	177,580	232,609	442,806	314,235	359,553
• Derivative financial instruments	3	0	0	0	0
• Tangible assets - *Property, Plant and Equipment*	16,932	24,381	44,015	40,451	45,788
• Intangible assets - *License for corporate software*	0	2,190	3,630	2,685	6,107
• Tax assets - *Deferred tax assets*	970	918	1,319	1,281	2,313
• Other assets	35,791	58,316	40,665	30,153	46,541
TOTAL ASSETS	**668,749**	**919,695**	**1,388,193**	**1,521,229**	**2,132,183**
LIABILITIES	**GH¢'000**	**GH¢'000**	**GH¢'000**	**GH¢'000**	**GH¢'000**
• Deposits from banks and other credit institutions	59,801	14,261	90,127	69,921	108,185
• Borrowings	55,661	61,782	82,499	76,029	103,127
• Deposits from customers	437,951	682,705	922,077	1,116,332	1,608,256
• Tax liabilities	4,724	4,341	3,374	4,133	3,963
• Other liabilities	45,946	71,868	84,703	27,168	46,053
• TOTAL LIABILITIES	**604,083**	**834,957**	**1,182,780**	**1,293,583**	**1,869,584**
EQUITY	**GH¢**	**GH¢**	**GH¢**	**GH¢**	**GH¢**
• Stated capital	16,400	16,400	100,000	100,000	100,000
• Income Surplus Account	23,496	41,619	59,041	72,566	88,086
• Revaluation Reserves	1,602	1,595	15,491	15,989	24,587
• Statutory Reserve Fund	18,747	22,965	29,654	36,980	45,743
• Regulatory Credit Risk Reserve	4,421	2,781	2,716	2,111	4,183
• Capital and Equity attributable to					
• parent equity's					
• Equity holders	64,666	85,360	206,902	-	-
• Non-controlling interest	0	-622	-1,489		

TOTAL EQUITY	**64,666**	**84,738**	**205,413**	**227,646**	**262,599**
TOTAL LIABILITIES AND EQUITY	**668,749**	**919,695**	**1,388,193**	**1,521,229**	**2,132,183**
Contingency liabilities and commitment	**65,268.00**	**133,237.00**	**233,129.00**	**-**	**-**

4.9.4 5 YEARS HISTORICAL INFORMATION OF THE FINANCIAL STATEMENT

GHANA COMMERCIAL BANK

	2007 GH¢'000	2008 GH¢'000	2009 GH¢'000	2010 GH¢'000	2011 GH¢'000
ASSETS					
• Cash and Cash Balances with central bank	115,338,071	202,811,774	147,103,052	325,566,469	435,469
• Available-for-sale financial assets - Equity instruments	4,973,757	15,453,659	-	-	-
• Loans and receivables	21,681,861	57,166,284	186,307,292	231,514,760	217,179
• Held-to-maturity investments					
Debt instruments	-	-	-	-	1,196,910
Short-Term Investments	92,996,512	116,371,223	105,857,373	451,596,191	
Medium Term Investments	110,000,000	110,000,000	-	110,000,000	-
Loans and advances	750,663,543	1,087,118,928	-	-	476,211
Investment in Subsidiary	20	20	20	20	20,240
Investment in Other Securities	-	-		8,287,004	7,823,928
198					
• Tangible assets –					
Property, Plant and Equipment	29,871,980	41,085,138	49,654,822	54,001,812	53,955
• Intangible assets	-	-	-	-	1,841
• Tax assets –					
Deferred tax assets	990,534	2,312,309	8,527,324	3,283,591	11,379
Income tax asset					6,309
• Other assets	24,481,971	13,477,660	35,829,587	28,855,950	39,124
TOTAL ASSETS	**1,150,998,249**	**1,645,796,995**	**1,917,083,201**	**2,106,325,143**	**2,463,377**
LIABILITIES					
• Due to Other Banks and Financial Institutions	58,044,439	91,337,682	-	-	-
• Borrowings	14,000,000	117,300,000	331,800,000	73,125,000	79,000
• Deposits from customers	839,382,573	1,030,106,198	1,259,470,137	1,575,281,050	2,061,390
• Tax liabilities	8,983,718	10,807,666	6,033,925	31,196,276	
• Other liabilities	56,896,239	192,381,784	120,948,413	181,573,861	108,425

• Employee benefit					36,322
• **TOTAL LIABILITIES**	**977,306,969**	**1,441,933,330**	**1,718,252,475**	**1,861,176,187**	**2,285,137**
EQUITY					
• Stated capital	72,000,000	72,000,000	72,000,000	72,000,000	72,000
• Retained earnings	71,077,544	87,288,658	46,489,073	80,235,293	26,732
• Capital Surplus Account	-	7,742,534	492,444	812,444	
• Revaluation Reserves	-	-	-	-	509
• Statutory Reserve Fund	22,412,090	27,037,696	36,096,272	49,954,330	55,210
• Regulatory Credit Risk Reserve	8,201,646	9,794,777	43,752,937	42,146,889	24,631
• Other Reserve	-	-	-	-	(842)
TOTAL EQUITY	**173,691,280**	**203,863,665**	**198,830,726**	**245,148,956**	**178,240**
TOTAL LIABILITIES AND EQUITY	**1,150,998,249**	**1,645,796,995**	**1,917,083,201**	**2,106,325,143**	**2,463,377**

4.9.5 Interpretation:

In the above financial statement of the selected banks, GCB continued to be dominant in the operating assets of this financial statement throughout the 5 years. The Bank's operating assets increased from GH¢ 1.6 billion in 2008 to GH¢2.4 billion in 2011. GCB with its 157 branches (more than double that of EBG) closed the year with a deposit balance of GH¢2.1billion. GCB which had the highest Net Interest Margin (NIM) at 14.1% in 2010 saw a downturn to 9.5% in 2011. Interest expense dropped from GH¢103 million in 2010 to GH¢50 million in 2011 but the bank experienced a steep drop in interest income from GH¢387 million in 2010 to GH¢256 million in 2011. The reduction in interest income was a direct consequence of a swap of almost 50% of its loan book exposure to the public sector for government bonds.

GCB has suffered a steep decline in their return to the shareholders because they were unable to sustain the prior year's profit after tax which dropped by 70%. EBG in 2011, mobilized GH¢1.7billion of deposits using a branch network of 78. GCB lost 60% of its market share

because the bank reduced its exposure to the public sector by over 70% in 2011. EBG is now the dominant lender in the market. The growth arose from term facilities extended to customers. EBG now holds the second largest operating assets in the quartile with total operating assets of GH¢1.4 billion in 2010 to GH¢2 billion in 2011. EBG had the highest returns for the year, in comparison with their reported overall groups operating performance. EBG has shown a declining trend in their liquidity over the past three years.

(Ghana Banking Survey, 2012)

4.9.6 Correlations

Correlation coefficient defines the degree and type of relationship that exists between two or more variables in which they vary together over a period of time.

Table 4.9.5 Profitability level of Ecobank

YEAR	PROFITABILITY LEVEL GH¢	RATE
2007	64,666,000	-
2008	84,738,000	31.03%
2009	205,413,000	142.41%
2010	227,646,000	10.18%
2011	262,599,000	15.35%

From Table 4.9.6 Level of Liquidity of Ecobank

YEAR	LIQUIDITY LEVEL GH¢	RATE
2007	651817000	-
2008	895314000	37.35%
2009	1344178000	50.13%
2010	1480778000	10.18%
2011	2086395000	40.89%

Interpretation

From Table 4.9.5 and Table 4.9.6, we can observe that Liquidity was positively related to profitability at the rate of 10.18% in 2010.

Table 4.9.7 Profitability level of Ghana Commercial Bank

YEAR	PROFITABILITY LEVEL GH¢	RATE
2007	173,691,280,000	-
2008	203,863,665,000	17.37%
2009	198,830,726,000	-2.47%
2010	245,148,956,000	23.30%
2011	178,240,000	-99.92%

From Table 4.9.8 Level of Liquidity of Ghana Commercial Bank

YEAR	LIQUIDITY LEVEL GH¢	RATE
2007	1,121,126,269,000	-
2008	1,604,711,857,000	43.13%
2009	1,917,083,201,000	19.46%
2010	2,052,323,331,000	7.05%
2011	2,409,422,000	-99.92%

Interpretation

From Table 4.9.7 and Table 4.9.8, we can observe that Liquidity was positively related to profitability at the rate of -99.92% in 2011.

CHAPTER FIVE: RESEARCH DISCUSSION, RECOMMENDATION AND CONCLUSION

5.0 INTRODUCTION

The last chapter outlined the research findings with their corresponding comments. In this chapter, the research findings are summarized after which appropriate recommendations are made.

5.1 SUMMARY OF FINDINGS

The study revealed the following findings:

- Liquidity management helps managers in banks. The respondents of both selected banks both agreed that they actually benefit from liquidity management techniques. It has helped the bank avoid liquidity crisis and has helped avoid over liquidity of the bank.
- Respondent banks represent a large share of the banking market, therefore the aggregated responses are a good evidence of the practices and experience of banks in managing their liquidity.
- Both selected banks have in act a policy for liquidity management, approved by the bank's management.
- 4 out of 8 respondent bank (Ecobank) use liquidity gap analysis for managing their liquidity, while 4 out of 8 respondent bank (GCB) use scenario planning for managing their liquidity.

There are challenges of managing liquidity in both selected banks:

- The problem of selecting or identify the optimum point at which banks can maintain its assets in order to optimize profit and at the same time meets the financial demands of its depositors by maintaining adequate liquidity.
- Simple, long term lack of investment
- Poor processes to capture cash movements from across the bank
- Imbalance between maturity date of their assets and liability
- Struggle on centralizing and out-sourcing cash management decisions
- Limited analytic capabilities. Without sufficient analytic capabilities, firms have extreme difficulty projecting cash flow for underlying transactions, particularly when those transactions number in the millions.

There is a significant relationship between the rate of profitability and liquidity with respect to asset portfolio management because it was observed that companies with a poor indicator of liquidity are usually not able to upkeep the other indicator in a high level; also the selected banks with both high or low liquidity were stable in the same position after a few years.

Therefore the need for efficient liquidity management in the banking industry cannot be over emphasized particularly for reasons of maximizing profit levels and concurrently remaining liquid. For the banking industry in Ghana, there is the need to emphasize 'the need to remain liquid'. The study buttresses the fact that efficient liquidity management can significantly influence returns on capital employed by a bank and as well impact positively on the bank's profitability and thus its stability. It is finally recommended that interested researchers should dwell on the same area of this research extensively using a wider data and area of coverage.

Effective liquidity management creates good public confidence in the financial system of a country and good public confidence prevents a 'run' on the banking system and consequently on the liquidity state of banks. Since economic laws and variables from this study and other related researches have attested to the fact that there is correlation between efficient liquidity management and banking performance, the poor liquidity state of Nigerian banks could be hinged on management. Therefore, there is the need to formulate policies that will enhance effective liquidity management in the banking industry in Nigeria and the public usage of cash.

5.2 CONCLUSION

The major concern of this study was to reconcile the conflicting requirements of bank liquidity arising from the conflicting desires of the two major providers of the bank resources namely the shareholders and the depositors. The shareholders desire maximum profitability as a return on their capital, while the depositors opt for a maximum liquidity as a guarantee for safety and ability to pay their money on demand.

Considering the findings of this study, the following conclusions can be drawn:

1. For the success of operations and survival, commercial banks should not compromise efficient and effective liquidity management. They are expected to maintain optimal liquidity level in order to satisfy their financial obligations to customers or depositors and maximize profits for the shareholders.

2. The optimal liquidity level is reached if the commercial banks religiously maintained the minimum liquidity requirement as stated by the Bank of Ghana. This attempt helps to reduce cases of bank distress.

3. From the study, we can rightly conclude that both illiquidity and excess liquidity are "financial diseases" that can easily erode the profit base of a bank as they affect bank's attempt to attain high profitability-level. The pursuit of high profit without consideration to the liquidity level can cause great illiquidity, which reduces the customers' patronage and loyalty. Therefore, any bank that has the aim of maximizing its profit level must adopt effective liquidity management.

4. Effective liquidity management also requires adequate liquidity level which will help commercial banks to estimate the proportion of depositor's funds that will be demanded at any period and arrange on how to meet the demand. It can finally be concluded that liquidity is inversely related to profitability. That means as liquidity increases, profitability decreases and vice versa. This research study underpins or supports with evidence the fact that there exist a strong positive relationship between efficient liquidity management and banking performance in terms of Profitability and liquidity.

5.3 RECOMMENDATION

Although emphasis have been made on the effective means to manage banks liquidity, the research once more recommend that cash centers, branches and other concerned treasury centre should comply and report immediately to avoid problem of inadequate capitalization or shortages of funds. Banks in Ghana occupy a central position in the country's economy. They are the pilots on which any economic activity is been carried out. Therefore the important role of both selected banks on the development of a countries economy cannot be over-emphasized. In the management of liquidity both selected banks, a lot of adjustment should be made in the banking system to increase the benefit derived from its management. For the benefit to be archive, the recommendation is categorized in the following ways;

Further research is recommended on how to achieve the optimal liquidity level in commercial banks. The result will help to solve the problem of excess liquidity and it's reducing effects on profits, and arbitrary high profitability with its consequent reduction of liquidity position. Also it is recommended that research should be launched on identifying better quantitative measures of profitability, liquidity, risk and managerial efficiency, which could lead to more satisfactory estimation of cause-effect relationship.

The balanced scorecard which ensures a fair assessment of staff performance could also assist in the performance of banks to a large extent if implemented as a strategic tool. It can be implemented to assess performance of banks in Ghana by measuring in several dimensions such as customer perspective, internal business processes perspective and learning and growth perspective to managers, shareholders and other interested stakeholders regarding the

performance of the banks in Ghana. This will enable banks focus on the core strategies in order to create and deliver superior value and returns to their stakeholders. By measuring customer feedback on how best they are delivering on their core activities, it will give them an indication of whether they are on track or not on their customer service delivery strategy.

We also recommend that regulatory authority should put in place appropriate policy with compliance measures to check high volume cash transaction and cash hoarding prevalent in the economy. This is important because liquidity management is cumbersome and may be ineffective in an economy that operate solely on large volume of cash transaction or conducts a large proportion of its transactions in cash. The reason is not far-fetched, liquidity management relies on the daily assessment of the liquidity conditions in the banking system, so as to determine its liquidity needs and thus the volume of liquidity to allot or withdraw from the market. While it might be true that the cheque clearing system is now automated for efficiency, electronic or internet banking is growing at a fast rate, banking culture in yet to be imbibed by the teaming bank customers such that cash hoarding and cash transactions is still the order of the day. Determining the liquidity needs or level of the banking system in such circumstances is cumbersome. The uncertainty arising from that may either lead to keeping excess liquidity or run short of liquidity and the duo have adverse effect on bank stability

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