EFFECT OF LIQUIDITY MANAGEMENT ON THE PERFORMANCE OF COMMERCIAL BANKS. A CASE OF STANBIC BANK UGANDA LIMITED

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2016/HD06/1067U

A RESEARCH REPORT SUBMITTED TO THE SCHOOL OF POSTGRADUATE STUDIES IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF ARTS IN ECONOMIC POLICY MANAGEMENT OF MAKERERE UNIVERSITY

DECEMBER, 2017
DECLARATION

I, BUSINGE HILLARY, hereby declare that the information in this proposal entitled “effects of liquidity management on the performance of commercial banks: A case of Stanbic bank Uganda limited”. This is my own original work and to the best of my knowledge, it has never been submitted to any University or institution for any academic award whatsoever.

Signature: 

Date: 01/10/2018

BUSINGE HILLARY
2016/HD06/1067U

APPROVAL

This Research entitled “Effects of liquidity management on the performance of commercial banks: A case of Stanbic bank Uganda limited” has been read and approved by me as a supervisor.

Signature

Date 2-10-18

Prof. Bbaale Edward
Supervisor
DEDICATION

I dedicate this piece of work to my beloved family for their help during the course of study.
ACKNOWLEDGEMENT

As I present my research findings on the effect of Liquidity Management on the Performance of Commercial Banks, a case of Stanbic Bank Uganda Limited. I would like in the first place to thank the Almighty God for the wisdom and knowledge rendered to me in my course of study.

I owe much gratitude to my supervisor Prof. Bbaale Edward for the care, commitment and kindness he has offered to me while writing this dissertation. I pray to the Almighty God to grant him many blessings.

Special thanks go to my friends for their guidance and help extended to me through my course. Am also grateful to my dear lecturers Prof. Bbaale Edward and Dr. Mukisa Ibrahim for the professional mentoring offered to me during the course of the study. May the Almighty God bless them and reward them abundantly.

In a special way I extend my appreciation to my beloved wife Margaret Kemigisha, my dear mother Ms. Alice J Nsungwa, my sister Ann Luyima Ndagire and my entire family for the moral and material support rendered to me during the course of study.
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ABSTRACT

This study was undertaken to assess the effect of liquidity management on the performance of commercial banks taking a case of Stanbic bank Uganda Limited. It was guided by the following objectives namely; to identify the different liquidity management practices in commercial banks in Uganda, to examine the different determinants of liquidity in commercial banks of Uganda, and to determine the effect of Liquidity Management on profitability of commercial banks in Uganda.

The study was guided by a cross sectional case study research design. The researcher used simple random sampling for banking/credit/loan officers and clients of Stanbic bank and purposive sampling for branch managers and heads of departments. The researcher selected 70 participants as the sample for the study.

The study found out that liquidity management practices at Stanbic bank limited include; storage of cash, supply or withdraws of liquidity consistent with desired level of reserve money from market, daily assessment of liquidity conditions, as well as daily analysis and detailed estimation of the size and timing of cash inflows and outflows. It also found out that; Stanbic bank regularly monitors the quality of its assets, and also continuously captures large maturity mismatches to enhance profitability potential, Stanbic bank; has a team that regularly monitors international financial trends, as well as closely monitoring liquidity in macroeconomic platform; Stanbic bank has a system that improves capital adequacy, governance and liquidity risk, the bank also enhances transparency of its operations of credit as well as ensuring that reserves of liquid assets are sufficient to withstand adverse liquidity shocks. The study also found out that liquidity; is a precondition for daily operation, it affects bank operation, may lead banks to miss on incentives given by suppliers of credit, service and goods; adoption of liquidity strategies increases ROA, liquidity management ensures successful operations, improves earnings and capital; distressed banks only access funds from market at high interest rates which reduces profitability and the ration of liquid assets to customer and short term funding is positively related to ROA.

From the findings, the following recommendation were therefore made; (i)There is a need to invest the excess of liquidity available at the banks; (ii) Commercial banks should adopt a general framework for liquidity management; (iii) Banks need to adopt of a scientific methods in detection of the strengths and weaknesses points of liquidity; (iv) Bank managers should identify and monitor key business drivers; (v) Bank officials should be trained in the areas of liquidity management; (v) Bank managers should be forward looking, and focus on operational efficiency of the banking industry; (vi) High quality liquidity assets buffer sufficient to hedge sudden liquidity outflows should be maintained; and (vii) Banks should adopt optimum liquidity model for maximum return on investment, survival, stability, growth and development of banking system in Uganda.
# LIST OF ACRONYMS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
</tr>
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<tbody>
<tr>
<td>BOU</td>
<td>Bank of Uganda</td>
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<tr>
<td>CVI</td>
<td>Content Validity Index</td>
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<tr>
<td>DV</td>
<td>Dependent Variable</td>
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<tr>
<td>EU</td>
<td>European Union</td>
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<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
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<tr>
<td>IV</td>
<td>Independent Variable</td>
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<tr>
<td>MDIs</td>
<td>Microfinance and Deposit taking Institutions</td>
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<tr>
<td>NSE</td>
<td>Nairobi Security Exchange</td>
</tr>
<tr>
<td>ROA</td>
<td>Return on Assets</td>
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<td>SPSS</td>
<td>Statistical Package for Social Scientists</td>
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CHAPTER ONE

INTRODUCTION

1.0 Introduction

This study investigated the effect of liquidity management on the performance of commercial banks, a case of Stanbic Bank Uganda Limited. This chapter describes the background of the study in terms of historical perspective, theoretical, conceptual, and contextual perspectives. It also describes the statement of the problem, purpose of the study, research objectives, research questions, scope of the study and the significance of the study.

1.1 Background

1.1.1 Historical perspective

According to Davydenko (2011), the performance of the banking sector and other financial sectors, in the past years have been overall sound despite the global crisis, in part, to proactive supervision by the regulators who have heightened their supervisory activities to detect any immediate stress present in the system.

Uganda’s banking sector has developed since 1906, when the National bank of India, which later became Grindlays bank, was established (Bategeka and Okumu, 2010). However, prior to independence in 1962, the banking sector in Uganda was dominated by foreign owned commercial banks (Beck and Hesse, 2006). In 1966, the Bank of Uganda became the central bank, controlling all currency issues and foreign exchange management (Mutibwa, 2013). With the establishment of Uganda commercial banks and Uganda Development Bank in 1972, state-owned banks dominated the banking sector, on top of East African Development Bank which was established in 1967 (Bategeka and Okumu, 2010).
The financial institutions in Uganda are supervised and regulated by the Bank of Uganda, according to Bank of Uganda statute 1993; with the following objectives: ensuring that, financial institutions maintain an adequate level of liquidity at all times, able to meet all known obligations and commitments and plans for unforeseen obligations and commitments; promote public confidence in financial institutions in Uganda through ensuring that they have adequate liquidity at all times; ensure that financial institutions manage their liquidity by means of clear and well written policies which take into account all aspects of proper liquidity management; and provide guidance on compilation of accurate and timely liquidity returns (Bank of Uganda Statute, 1993).

In July 1999, the Bank of Uganda issued a policy statement which classified financial institutions into four Tiers. Tier IV; financial institutions which are not regulated by bank of Uganda and are not authorized to take in deposits from the public but may offer collateral or non-collateral loans. Tier III; Microfinance and Deposit taking Institutions (MDIs). Tier II; Credit institutions; Tier I; Commercial banks. Commercial banks are authorized to hold current, savings and fixed deposit accounts for both retail and corporate in local and international currency. In addition, Commercial banks are authorized to transact the business of foreign exchange in all currencies. This study focuses on Commercial banks, specifically effects of liquidity management on performance of commercial banks in Uganda, considering a case of Stanbic Bank Uganda.

1.1.2 Theoretical perspective

The study was anchored on three theories, the Theory of Corporate Liquidity, Liquidity Management Preference Theory and Shiftability Theory of Liquidity Management.
1.1.2.1 Theory of corporate liquidity

Alexiou and Sofoklis (2009) proposed a theory of corporate liquidity demand that is based on the assumption that choices regarding liquidity will depend on firms’ access to capital markets and the importance of future investment to the firms. The model predicts that financially constrained firms will save a positive fraction of incremental cash flows, while unconstrained ones will not. The cost incurred in a cash shortage is higher for firms with a larger investment opportunity set due to the expected losses that result from giving up valuable investment opportunities. A liquid company takes advantage of available investments, cash discounts and lower interest charges on borrowings. Hence there is a relationship between cash holdings and investment opportunity and thus financial performance.

The difficulties experienced by some banks and other financial institutions during the financial crisis were due to lapses in basic principles of liquidity management. In response, as the foundation of its liquidity framework, the Committee in 2008 published Principles for Sound Liquidity Risk Management and Supervision (“Sound Principles”). Liquidity is the ability of a bank to fund increases in assets and meet obligations as they come due, without incurring unacceptable losses (Banks, 2005). The liquidity of an asset depends on the underlying stress scenario, the volume to be monetized and the timeframe considered. Therefore, efficient and effective liquidity management is crucial if the survival and prosperity of firms is to be assured.

According to the Banking Act (2014) and CBK Prudential Guideline (2013), an institution shall maintain such minimum holding of liquid assets as the Central Bank may from time to time determine. Ugandan banks are required to maintain a statutory minimum of twenty per cent (20%) of all its deposit liabilities, matured and short term liabilities in liquid assets. Liquidity Ratio is determined by net liquid assets and total short term liabilities.
1.1.2.2 Liquidity Management Preference Theory

This theory was put forward by John Maynard Keynes (2011). Liquidity preference refers to the amount of money the public is willing to hold given the interest rate. Keynes argued that there are three reasons for holding liquid assets. First, they act as ordinary transactions, second the act as a precaution against a rainy day, and third they are used for speculative purposes. Keynes showed that transaction deposits vary inversely with the rate of interest. The main argument in this theory is that at very low interest rate, an increase in the money supply does not encourage people investment but instead increases cash balances. The reason is that people expect the interest rate to rise later.

1.1.2.3 Shiftability Theory of Liquidity Management

Shiftability theory, developed by Bhattacharyya (2011), states that the level of defensible financial institution liquidity management is having possession or investing in legal capital capable of shifting solely to other investments in obtaining liquid equipment. Loan for instance becomes secondary back up while secondary back up shifts to become primary back up. This means Shiftability theory suggests that financial institutions should give credit paid with notification before they apply for commercial paper pawn. According to this theory banks maintain liquidity if they hold assets that are marketable. During a liquidity crisis such assets are easily converted into cash. Thus this theory contends that shiftability, or marketability or transferability of bank assets is a basis for ensuring good liquidity management (Deger & Adem, 2011).

Supposing when there are no hard cash, financial institutions tend to sell pawn goods on loan aiming to obtain adequate cash. The friction happens because collateral which is illiquid turns
into liquid. Besides this they also often sell marketable securities like super common stock. As a result, the shiftability theory is comprehended to give description and confidence of management of financial institutions until certain degree of removable asset possession in condition is needed to fulfill liquidity management (De-Young & Rice, 2004).

1.1.3 Conceptual perspective

Liquidity entails meeting obligations as they fall due and striking a balance between the current assets and current liabilities. Chacko (2014) refers to liquidity as the ability of a firm to meet its short term obligations. According to Mahavidyalaya et al (2010) the term liquidity refers to the capability of the bank to meet short term financial obligations by converting the short term assets into cash without suffering any loss. Garcia-Herrero et al. (2009) suggested that liquidity can be defined in three contexts; where they distinguish the asset, asset-equity, and cash aspects of financial liquidity. The financial liquidity of company’s assets – is the ability to convert assets into cash in the shortest possible time, at the lowest possible costs and without losing their value. Berrios (2013) also stated that operating liquidity is the level of liquidity required to meet an institution’s daily cash outflow commitments. Liquidity entails meeting obligations as they fall due and striking a balance between the current assets and current liabilities. According to Claeys, Vander and Vannet (2008), normally a high liquidity is considered to be a sign of financial strength, however, according to some authors such as Goddard, Molyneux and Wilson (2004), a high liquidity can be as undesirable as a low this is because the financial institutions might be holding the excess liquidity that could be used for investments to increase returns and income. According to Havrylchyk and Emilia (2006) observes that companies are strained when their level of liquidity is low and have negative working capital. This is because either inadequate
liquidity or excess liquidity may be injurious to the smooth operations of the organization (Hoffmann, 2011).

Iannota, Nocera and Sironi (2007) measured firm performance by return on assets which is EBIT / average total assets, return on equity that is net profit / equity, change in market value of equity, change in market value of equity, adjusted for dividends and risk. Kasekende and Ating-Ego (2010) used return on equity and profit margin for the measurement of firm performance.

1.1.4 Contextual perspective

According to Mutibwa (2013), Uganda's financial system is relatively well developed and sound. The major elements of a well-developed financial system have been put in place, including the creation of the first credit reference bureau, and credit has grown rapidly in recent years, but the financial sector has still been unable to reach its full potential in supporting the allocation of economic resources across the economy.

The indicators of poor liquidity management are a fall in asset prices, inadequate debt, low marketability of assets (Saunders & Cornett, 2005). As a result, many commercial banks in Uganda face the challenge of reduced profitability (Kasekende & Ating-Ego, 2003). Therefore, liquidity management is regarded as the life blood of the economy and in its absence financial markets cease to function efficiently profitability (Molefe and Muzindutsi, 2016). Persistent liquidity management constraints in the Ugandan economy have resulted in reduced public confidence in the banking sector as well as increased financial disintermediation (Mutibwa, 2013).
Commercial banks in Uganda that have faced a number of liquidity management problems have reported poor financial performance (Mutibwa, 2013). Poor liquidity management affect earnings and capital. In extreme cases it leads to insolvency and bank failure (Alemayehu & Ndung’u, 2012). Distressed banks can only access funds from the market at high interest rate (Alemayehu & Ndung’u, 2012). This eventually causes a decline in the banks’ earnings. Moreover, a bank's further borrowing to meet depositors’ demand may place the bank's capital at stake (Alemayehu & Ndung’u, 2012). According to Stanbic Bank Annual Report (2015), the bank has managed to put in place a number of measures to manage its liquidity in order to ensure normal operations, however, it has not been well analysed to establish its impact on performance as well as establishing the best liquidity management practices in relation to the profitability of the bank. Therefore the current study sought to establish how best the management of liquidity in commercial banks like Stanbic bank Uganda limited can be a key tool towards performance.

1.2 Problem statement

According to Mutibwa (2013), commercial banks play their mediation role by absorbing financial surpluses from their holders (depositors) and put them at the disposal of investors (borrowers) to be directed towards various investment channels. This investment activity carried out by the bank is hardly devoid of risks and problems, because the bank is seeking to maximize its expected profits on these investments, and this requires optimum utilization of the available resources, since the bank is exposed at any moment to meet the obligations of its clients and depositors who want to withdraw their savings, and so the bank should be ready to meet these demands at any time.

However, the problem arises when the Bank is not able to meet these demands, especially those unexpected ones, which may embarrass the bank with its clients and may lose their trust over the
time, in light of the intensive competition in the banking sector resulting from the increasing number of local banks, as well as intensive competition from the foreign banks that work in the local banking market (Mutibwa, 2013).

Therefore, each commercial bank has to work to maximize its profits, and at the same time be able to meet the financial requirements of its depositors by holding a sufficient amount of liquidity, in order to achieve a balance between the profitability and liquidity. Banks should determine the optimal amount of cash that enable them in achieving balance between profitability and liquidity together, because each level of liquidity has a different effect on the levels of profitability, and the problem arises when the commercial banks try to maximize their profit at the expense of neglecting the liquidity effect, which may cause a technical and financial hardship with the consequent withdraw of deposits. The current study therefore seeks to determine the impact of liquidity management on performance commercial banks with special emphasis on how efficient liquidity management, liquidity indicators affect bank’s performance as well as the limitations that may hinder the achievement of the required balance between liquidity and performance, and how to overcome these limitations, taking Stanbic Bank Uganda Limited as a case study

1.3 Purpose of the study

The study sought to determine the effect of liquidity management in commercial banks of Uganda, taking Stanbic Bank Uganda Limited as a case study.

1.4 Objectives of the study

The study was guided by the following objectives;

1. To identify the different liquidity management practices in commercial banks in Uganda.
2. To examine the different determinants of liquidity in commercial banks of Uganda.

3. To determine the effect of Liquidity Management on profitability of commercial banks in Uganda.

1.5 Research questions

The study was guided by the following research questions;

1. What are the different liquidity management practices in commercial banks in Uganda?
2. What are the different determinants of liquidity in commercial banks of Uganda?
3. What is the effect of Liquidity Management on profitability of banks commercial banks in Uganda?

1.6 Scope of the study

1.6.1 Geographical scope

The geographical scope of the study was selected branches of Stanbic bank Uganda limited. These included; Stanbic Main Branch Kampala Road, Makerere University Branch, Freedom City Branch, Entebbe Branch and Mukono branch.

1.6.2 Subject scope

The subject scope of the study was limited to forms of liquidity management used by commercial banks in Uganda, types of liquidity indicators and how they affect performance of commercial banks as well as factors that hinder a balance between liquidity and performance of commercial banks in Uganda.

1.6.3 Time scope

The time scope was six months including data collection, analysis and writing of the final report. The study utilized publications and research studies for a period of ten years from 2006 to 2016.
This period was preferred because it is within this period that the government focused its attention on the strengthening financial liquidity in commercial banks in order to ensure financial performance.

1.7 **Significance of the study**

The study will be of great importance to the following stakeholders;

- **Financial institutions**
  
The study findings will benefit management and staff of financial institutions who will gain understanding into how their institutions can effectively manage their liquidity by coming up with appropriate practices for optimal liquidity levels. This will guide decision making and trend analysis of liquidity and financial performance of banks.

- **Researchers**
  
The research will also contribute to the literature on liquidity and financial performance especially in emerging countries like Uganda. It is hoped that the findings will be valuable to the academicians, who may find useful research gaps that may stimulate interest in further research in future. The study will add to the existing body of knowledge on liquidity and how liquidity impacts on financial performance and recommendations made will be of significance to those who may wish to carry out further studies in the area.

- **Policy makers**
  
The understanding of the liquidity and its impact on financial performance in financial institutions will help policy makers – governments and other stakeholders – to design targeted policies and programs that will actively stimulate the growth and sustainability of
the financial institutions in the country, as well as help those policy makers to support, encourage, and promote the establishment of appropriate policies to guide the firms.

- **Investors**

The study will also enable the investors to know the kind of information to be disclosed by firms on the financial statements as pertains to liquidity and financial performance.

1.8 Conceptual framework

According to Creswell (2003) conceptual framework is a basic structure of a research consisting of a certain abstract ideas and concepts that a researcher wants to observe or analyze. This study seeks to establish the effect of liquidity management on the performance of commercial banks in Uganda, a case of Stanbic Bank Uganda Limited.

**Figure 1:** Conceptual framework of the Relationship between liquidity management and performance of commercial banks.

<table>
<thead>
<tr>
<th>Independent Variable (IV)</th>
<th>Dependent Variable (DV)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Liquidity Management</strong></td>
<td><strong>Bank Performance</strong></td>
</tr>
<tr>
<td>• Liquidity management practices</td>
<td>• Profitability</td>
</tr>
<tr>
<td>• Liquidity management determinants</td>
<td>• Increase in bank reserve ratio</td>
</tr>
<tr>
<td>• Liquidity management and profitability</td>
<td>• Increase in bank deposits</td>
</tr>
<tr>
<td></td>
<td>• Increase in number of customers</td>
</tr>
</tbody>
</table>

**Intervening variables**

- Legal framework and Organizational structure
  - Organizational policies
  - Organizational laws

Source: Mathieson and Roldos (2001) as modified by the researcher
As seen in Figure 1 above, liquidity management is the independent variable (ID) whereas bank performance is the dependent variable (DV). The indicators of liquidity management include; Liquidity management practices, Liquidity management determinants, and Liquidity management effect on profitability. The indicators for bank performance include; profitability, increase in bank reserve ratio, increase in bank deposits and increase in number of customers. This relationship however is influenced by the intervening variable which is the legal framework and organizational structure.
CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter presents a theoretical review and review of literature related to the effect of effect of Liquidity Management on the performance of Commercial Banks in Uganda, a case of Stanbic Bank Uganda Limited.

2.1 Theoretical Review


2.1.1 Theory of corporate liquidity

This theory states that the liquidity of the commercial bank achieved automatically through self-liquidation of the loan, which being granted for short periods and to finance the working capital, where borrowers refund the borrowed funds after completion of their trade cycles successfully. According to this theory, the banks do not lend money for the purposes of purchasing real estate or consumer goods or for investing in stocks and bonds, due to the length of the expected payback period of these investments, where this theory is proper for traders who need to finance their specific trading transactions and for short periods (Mathuva, 2010).
2.2.1.2 Liquidity Management Preference Theory

This theory states that there is no need to follow old liquidity norms like maintaining liquid assets, liquid investments etc., banks have focused on liabilities side of the balance sheet (Rahaman, 2002).

According to this theory, banks can satisfy liquidity needs by borrowing in the money and capital markets. The fundamental contribution of this theory was to consider both sides of a bank’s balance sheet as sources of liquidity (Rajesh & Chaudary, 2009).

2.1.3 Shiftability Theory

Shiftability is an approach to keep banks liquid by supporting the shifting of assets. When a bank is short of ready money, it is able to sell its assets to a more liquid bank. The approach lets the system of banks run more efficiently: with fewer reserves or investing in long-term assets. Under shiftability, the banking system tries to avoid liquidity crises by enabling banks to always sell or repo at good prices (Rasiah, 2010). This theory emphasizes on marketability of bank assets as a better option for investing funds. The theory views long term financing as a more permanent type of funding by banks. It recognizes decreasing significance of short term self-liquidating loan (Ravi & Sharma, 2012).

2.2 Liquidity management practices and performance of commercial banks

According to Sugar and Rajesh (2008), Success of any bank depends on level of liquidity that is sufficient for its operation. Inefficient management of liquidity results in serious impairment of banking functions and contagious effect on the economy. A bank is set to be liquid if it stores sufficient liquid assets and cash together with the ability to raise fund quickly from other sources to enable it to meet its payment obligations and financial commitments in a timely manner.
Liquidity is a financial institution’s capacity to meet its cash and collateral obligations without incurring unacceptable losses (Ruozi & Ferrari, 2012). Adequate liquidity is dependent upon 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. Therefore, liquidity management involves the supply/withdrawal from the market the amount of liquidity consistent with the desired level of short-term interest rates or reserve money. It is the ability of an institution to meet demands for funds thereby ensuring that the institution maintain sufficient cash and liquid assets to satisfy client demand for loans and savings withdrawals and then meet its expected expenses (Samina & Ayub, 2013)

According to Sehrish, Faiza and Khalid (2011), liquidity management role is to prospectively assess the needs for funds to meet obligation and ensure the availability of cash or collateral to fulfill those need at the appropriate time by coordinating the various sources of funds available to the institution under normal and stressed conditions. It 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. Management of liquidity involves a daily analysis and detailed estimation of the size and timing of cash inflows and outflows over the coming days and weeks to minimize the risk that savers will be unable to access their deposits in the moment they demand them. Thus, liquidity is lifeblood of a banking system.

Sufian (2010), assert that the objective of liquidity management is to gear banks towards a financial position that enables them meet their financial obligations as they arise. Lack of adequate liquidity in a bank is often characterized by the inability to meet daily financial obligations. At time it may have the risk of losing deposits which erodes its supply of cash and thus forces the institution into disposal of its more liquid assets. As opined by (Stiroh & Rumbie,
managing monies of a firm in order to maximized cash availability and interest income on any idle cash is a function of liquidity management. However, the problems of weak corporate governance, poor capital base, illiquidity and insolvency, poor asset quality and low earnings are some of the constraints faced by the banking system.

According to Tianwei and Paul (2006), deposit mobilization is one of the most important functions of banks. This enables deposits to be mobilized which otherwise would have remained idle and unproductive in the surplus economic unit. Also important is the need for adequate income through interest on loan as this will ensure continued provision of productive resources. Therefore it is uneconomic and financially unreasonable for banks to allow excess idle cash in the vault or excess liquidity. Rather, they should manage their liquidity to maximized revenues while holding risks of insolvency at a desired level.

Liquidity management therefore refers to the planning and control of liquid assets either as an obligation to the customers financial needs or as a measure to adhere to the monetary policies of the Central Bank. For a commercial bank to plan or manage its liquidity position, it must comply firstly with the legal requirement concerning its cash position (Trujillo-Ponce, 2012).

However, Vander-Vennet (1996) opines that it is very essential for banks to manage and maintain adequate funds for operations in order to avoid excesses or deficiencies of the required primary reserves. Where there is a decline in the market price of securities or where additional funds needed to correct the bank reserve position are for a short time, it will be definitely expensive to secure securities than to borrow from another bank. Moreover, it may be more desirable to borrow for bank’s liquidity needs than to call back outstanding loan or cancel out rightly or place embargo on new loans, a situation that will reduce the customer confidence in the bank.
Effective liquidity management therefore involves obtaining full utilization of all reserves. The primary reserves are made of vault cash, cash balances or excess reserves with the CBN, as well as deposits with other banks, both locally and abroad. They are maintained to satisfy legal and operational requirements. While the secondary reserves are those liquid assets that can be converted into cash without impairment of the principal sum invested. Secondary reserves are characterized by short maturity, high credit quality and high marketability. The secondary reserves are held primarily to meet both anticipated and unanticipated short-term and seasonal cash needs from depositors. They contribute to that attainment of both profitability and liquidity objective of the bank (Wanjohi, 2013).

2.3 Determinants of Liquidity in Financial Institutions

According to Vintila and Nenu (2016), the liquidity of a company is influenced by many factors. Some are firm specific while others are market specific. Some of the factors that influence the liquidity of financial institutions include, macroeconomic factors, asset quality and capital structure among others.

2.3.1 Asset Quality

According to Wanjohi (2013), the solvency of financial institutions is typically at risk when their assets become impaired, so it is important to monitor indicators of the quality of their assets in terms of overexposure to specific risks trends in non-performing loans and the health and profitability of borrowers. Credit risk is inherent in lending which is the major banking business. It arises when a borrower defaults on the loan payment agreement. A financial institution whose borrower defaults on their payment may face cash flow problems, which eventually affects its liquidity position. Ultimately, this negatively impacts on the profitability and capital through extra specific provisions for bad debts (BOU, 2011).
Initially solvent financial institutions may be driven towards closure by management of short term liquidity. Indicators should cover funding sources and capture large maturity mismatches. The mismatching and controlled mismatching of the maturities and interest rate of assets and liabilities is fundamental to the management of financial institutions. It is unusual for microfinance to be completely matched since business transacted is often of uncertain term and of different types. An unmatched position potential enhance profitability but also increase the risk of losses (The Uganda Banker, June 2001).

2.3.2 Macroeconomic Factors

After the global financial crisis the financial institutions started to consider the liquidity problems and its importance for the overall performance of financial markets (Berrios, 2013). Athanasoglou, Brissimis and Delis (2008) studied the liquidity measures of English banks and found that profitability, loan growth, GDP and monetary policy interest rate has a negative impact on bank’s liquidity. Alexiou and Sofoklis (2009) studied the liquidity risk measures in emerging markets and found that bank size, profitability and financial crisis negatively affect liquidity while capital adequacy, inflation and supply of liquid assets were positively associated with liquidity. Beck and Hesse (2006) studied the effect of interest rate on risk and liquidity management of the banks of European Union. The results found that interbank rate and bank size positively determine the liquidity and monetary policy interest rate is negatively linked with level of liquidity.

Claeys and Vander (2008) studied the determinants of liquidity of German state-owned saving banks and found that bank size, profitability and monetary policy interest is negatively associated while liquidity lag value is positively associated. The studies mentioned above recommend that bank’s liquidity is determined mainly by bank specific and macroeconomic variables. Anecdotal
evidence from the financial press indicates that investors generally believe that monetary policy and macroeconomic events have a large influence on the volatility of financial performance. A strong and profitable financial system promotes broader financial stability and increases the economy’s resilience to adverse macroeconomic shocks. At the same time, changes in macroeconomic conditions affect banks’ performance and financial health. It is therefore of importance for the authorities responsible for the maintenance of financial and monetary stability to quantify the linkages between macroeconomic developments and the financial sector.

2.3.3 Capital Structure

The recent global financial crisis has revealed the necessity to further improve capital adequacy and liquidity risk management, governance and to enhance the transparency of the operations of credit institutions. While encountering a variety of risks in their operations, banks may incur loss that primarily is compensated from the bank’s capital, therefore the management of capital adequacy risk of banks must be given particular attention. Accordingly, the accrued reserves of liquid assets must be sufficient to withstand adverse liquidity shocks, as inadequate liquidity of the bank may lead the bank to collapse in exactly the same way as a shortage of capital (Vintila & Nenu, 2016).

Trujillo-Ponce (2011) analyzed the importance of capital structure to corporate financial stability, growth and adequate returns and liquidity cannot be undermined. He concluded in his research with the help of multiple regression model that increasing proportion of both short term debt and long term debt on the overall liability of the firm reduces corporate profitability. He also revealed that profitability and performance of firm depend on proper management and composition of their capital structure. Sufian (2010) examined that asset liquidity has major influence on capital formation. He concluded in his research with the help of multiple regression
model that liquidity of assets has been positive relation with leverage. He demonstrated that lower assets liquidity reduces the cost of debt and for that reason companies use more debt. He gave details that the relation between secured debt and asset liquidity is safe and positive while the unsecured debt is negatively correlated with firm’s liquidity.

2.4 Liquidity Management and Profitability of Banks

Globally, Liquidity management is inversely related to the performance of commercial banks (Berrios, 2013). A liquidity management crisis was evident in Global financial crisis of 2007–08 (Bhattacharyya, 2011). This was the worst financial crisis raising fundamental questions about liquidity management (Banks, 2005). During the crisis, banks were hit hardest by liquidity management pressures cutting back sharply (CBK, 2016). In many areas, the economy faced a huge financial blow, resulting in house evictions, foreclosures and prolonged unemployment (Basel Committee on Banking Supervision, 2013). The crisis underscored the role of liquidity management to commercial banks (Basel Committee on Banking Supervision, 2013).

Liquidity is a precondition to ensure that financial institutions are able to meet its short-term obligations. The liquidity position in a company is measured based on the 'current ratio' and the 'quick ratio'. The current ratio establishes the relationship between current assets and current liabilities. Normally, a high current ratio is considered to be an indicator of the firm’s ability to promptly meet its short-term liabilities (Beck & Hesse, 2006). The quick ratio establishes a relationship between quick or liquid assets and current liabilities. An asset is liquid if it can be converted into cash immediately or reasonably soon without a loss of value. Low liquidity leads to the inability of a company to pay its creditors on time or honour its maturing obligations to suppliers of credit, services and goods. This could result in losses on account of non-availability of supplies and lead to possible insolvency. Also, the inability to meet the short-term liabilities
could affect the company's operations and in many cases, it may affect its reputation as well (Egesaand Abuka, 2006). Inadequate cash or liquid assets on hand may force a company to miss the incentives given by the suppliers of credit, services, and goods as well. Loss of such incentives may result in higher cost of goods which in turn affects the profitability of the business (De-Young & Rice, 2004). Every stakeholder has interest in the liquidity position of a company. Suppliers of goods will check the liquidity of the company before selling goods on credit. Employees should also be concerned about the company's liquidity to know whether the company can meet its employee related obligations, i.e., salary, pension, provident fund, etc. Thus, a company needs to maintain adequate liquidity (Deger&Adem, 2011).

In today’s society, financial institutions hold a considerable market share, with the IMF estimates that across all banking sector assets in developing countries, the market share of co-operative finance was equivalent to 14 percent in 2004 (Goddard et al., 2004). Previous research on financial institutions during crisis indicates that they tended to fare better than investor-owned savings and loans institutions, as they pursue more conservative investment policies (Hoffmann, 2011). For instance, analysis from the IMF indicates that co-operative banks in developed countries tend to be more stable than commercial banks, especially during financial crisis, as their investment patterns tend to be less speculative and returns are therefore less volatile (Iannotta et al., 2007).

In a study carried out by Macaulay (2008) to investigate the effectiveness of liquidity management risk management best practices in the United States reported that over 70% of the financial institutions have adopted the best practices in the country. There has been an increased concern regarding effective credit risk management due to the fact that inadequate credit risk
policies are the main source of vital problems in most of the financial institutions. An effective credit risk management policy must therefore aim at maximizing an institution’s rate of return.

Kasekende and Ating-Ego (2003) in a study in Ghana found no positive relationship between liquidity trend and profitability and concluded that there is a negative relationship between liquidity and profitability in the Ghana banking sector. Havrylchyk and Emilia (2006) findings suggested that the adaptation of liquidity strategies do not have a significant impact on ROA. Only increased use of liquidity forecasting and short-term financing during financial crisis had a positive impact on ROA. Moreover, it was found that the importance of key ratios, which monitors company’s liquidity have not changed between the studied time points. Kasman et al. (2010) found that the result for liquidity on profitability is mixed and not significant, indicates that conclusion about the impact of liquidity remains questionable and further research is needed.

Lee and Lee (2006) found a weak positive relationship between the liquidity and the profitability of the listed banks in Ghana in their 2013 study. Matama (2008) in their study in Nigeria concluded that for the success of operations and survival, commercial banks should not compromise efficient and effective liquidity management and 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. A study in Canada by Rahaman (2010) suggest that a nonlinear relationship exists, whereby profitability is improved for banks that hold some liquid assets, however, there is a point beyond which holding further liquid assets diminishes banks” profitability, all else equal. At the same time, estimation results provided some evidence that the relationship between liquid assets and profitability depends on the bank’s business model and the risk of funding market difficulties. Adopting a more traditional (i.e., deposit and loan-based) business model allows bank to optimize profits with a lower level of liquid assets.
Likewise, when the likelihood offending market difficulties is low (proxied by economic growth), banks need to hold less liquid assets to optimize profits.

Commercial banks in Uganda that have faced a number of liquidity management problems have reported poor profitability (Mutibwa, 2013). Poor liquidity management affect earnings and capital. In extreme cases it leads to insolvency and bank failure (Mugume, 2010). Distressed banks can only access funds from the market at high interest rate (Mpuga, 2002). This eventually causes a decline in the banks' earnings. Moreover, a bank's further borrowing to meet depositors' demand may place the bank's capital at stake (Nanyonjo, 2002).

However, a bank may ration credit if it feels that the liquidity management need of the bank is quite poor. Therefore, poor liquidity management reduces the capacity of the bank to effectively compete (Mathuva, 2010).

Olongo (2013) investigated the relationship between liquidity and profitability for companies listed at the NSE. The study established that cash conversion period and the current ratio as liquidity measures negatively affected the profitability of the firms listed in the NSE over the 5 year period while the quick ratio as a liquidity measure did not significantly affect the profitability of the firms listed in the NSE over the 5 year period.

Bourke (1989) in his study on performance of banks in twelve countries in Europe, North America and Australia found evidence that there is a positive relationship between liquid assets and bank profitability. These results seem counterintuitive, as it is expected that illiquid assets have a higher liquidity premium and hence higher return. Alexiou and Sofoklis (2009) realised that the ratio of liquid assets to customer and short term funding is positively related to ROA and statistically significant. Also, they found a significant positive relationship between liquidity and
bank profits. Athanassoglou et al. (2008) examined the determinants of performance of Greek banks during the period of EU financial integration (1990-2002) using an unbalanced pooled time series data set of 23 banks and found that less liquid banks have lower ROA. This is consistent with their previous findings like Bourke (1989) who found out that there is a positive relationship between liquidity risk and bank profitability. Recently, Bategeka and Okumu (2010) found out that there is a positive significant relationship between liquidity and profitability. They concluded that there is a bi-directional relationship between liquidity and profitability where the profitability in commercial banks is significantly influenced by liquidity and vice-versa.

On the contrary, Beck and Hesse (2006) recognized that there is inverse relationship between bank profitability and liquidity. They attributed this to the fact that banks hold liquid assets as an obligation to the requirements imposed by the authorities. However, if the author is to view this relationship from the context that banks hold liquid assets as mandated by the central bank or any other authorities, then the author may miss the argument as banks also hold liquid assets for other reasons. Assuming that banks only hold liquid assets as a requirement is, in itself, perfidious or a deliberate ignorance of knowledge of how banks function. Tobin (1958) advocated that liquidity is held for transaction purposes and for investments reasons. Tobin’s proposal was a simplification of Keynes’ liquidity preference theory. Keynes (1936) argued money is demanded for transaction, speculative, and precaution purposes. Therefore it can be firmly said without any prejudice that liquid assets over and above mandatory requirements are held for transaction, speculative and precautionary purpose.

2.5 Conclusion

In summary, the reviewed literature suggests that liquidity management has a certain impact on the performance of commercial however no particular study has investigated whether liquidity
management practices, determinants of liquidity in financial institutions as well as effect of Liquidity Management and profitability of commercial institutions of Uganda, which the current study sought to address. Therefore, the current study aimed at establishing how liquidity management affect performance of commercial banks in Uganda taking Stanbic Bank Uganda Limited as a case study.
CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter shows the design, population, sample, sampling technique, data sources, data collection instruments, data quality control, procedure and analysis and ethical considerations, as they were used in the study.

3.1 Research Design

A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure (Amin, 2005). The study employed a cross-sectional survey design. According to Creswell (2003) the survey is concerned with collecting data from usually a large number of respondents and data from usually a large number of respondents and data normally collected focuses upon the views, ideas and attitudes of the respondents in relation to the phenomenon under study. The design therefore gave consideration to the entire essential steps involved in the survey regarding the analysis of the effects of leasing.

This study used a qualitative and quantitative approach. Qualitative method provided data to portray the picture of the nature of leasing in detail, and quantitative method provided data for statistical purposes and for the assessment of liquidity management on performance of Stanbic Bank Limited.

3.2 Study Population

The population of the study comprised of the clients of Stanbic bank, the Stanbic bank branch managers and supervisors, credit officers among others and head of departments because they
have the required information about the effect of liquidity management on performance of Stanbic bank. The total population was 90 people and this comprised of 40 staff members including senior managers, heads of departments and 40 customers from 5 branches including Stanbic Main Branch Kampala Road, Makerere University Branch, Freedom City Branch, Entebbe Branch and Mukono branch.

3.3 Sample size and selection

Sample size refers to the subset of a population. The sample size for the study drawn was 90 respondents determined using the Krejcie& Morgan (1970) mathematical table, (appendix).

Table 1: Accessible population, Sample size and Sampling techniques

<table>
<thead>
<tr>
<th>Category</th>
<th>Accessible Population</th>
<th>Sample Size</th>
<th>Sampling Technique</th>
</tr>
</thead>
<tbody>
<tr>
<td>Branch managers</td>
<td>05</td>
<td>05</td>
<td>Purposive</td>
</tr>
<tr>
<td>Heads of departments</td>
<td>05</td>
<td>05</td>
<td>Purposive</td>
</tr>
<tr>
<td>Banking/Credit/loan officers</td>
<td>40</td>
<td>30</td>
<td>Simple random</td>
</tr>
<tr>
<td>Clients of Stanbic Bank</td>
<td>40</td>
<td>30</td>
<td>Simple random</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>90</strong></td>
<td><strong>70</strong></td>
<td></td>
</tr>
</tbody>
</table>


For the cases of the clients, the researcher used random sampling using the internal data for lease applicants, for supervisors and loans officers among other staff, branch manager, purposive sampling was applied because they are few and knowledgeable about the research problem. Simple random sampling enabled all clients to get an equal chance of being part of the study. Purposive sampling was used to select branch managers and heads of departments because of their importance to the study.
3.4 Data Sources

The study used primary data from the respondents using the questionnaires. Here a section of respondents believed to have key information were issued with questionnaires that consist of both structured and Un-structured questions.

3.5 Data Collection Methods

The data collection methods used for this study included the interview method for structured interview and questionnaire method for data personally administered.

3.5.1. Interview Method

This is a method of data collection in which selected participants are asked questions in order to find out what they do, think or feel to enable the researcher solicit information on the subject under study through probing (Creswell, 2003). During this exercise, face to face interaction were held where the interviewer asked or posed open ended questions on community participation to the interviewee while answers were being recorded in the book, (Amin, 2005). This method was applied on clients and some managers. The advantage of this choice and the method is that it is flexible and it is an easy way of finding information out. It as well permits researcher to ask for more complex questions and it takes in to accounts verbal communication such as attitude and behavior of the interviewee in relations to the subject being discussed. Interview guide was formulated covering the four thematic areas of the study.

3.5.2. Questionnaire Survey Method

This method involved the researcher designing and printing out closed ended questions based on a five likert scale (SA=Strongly Agree, A=Agreed, N=Neither agree or disagree, D=Disagree and SD=strongly disagreed). The designed choice questions yielded responses from respondents in the study as this was a self-administered questionnaire. The method allows for larger sample
to be used which should make the results more dependable and reliable (Amin, 2005). In addition, Cresswell (2003) asserts that contents that questionnaire covers big areas over a short period of time. Questionnaires also offer greater assurance of anonymity thus enabling the respondents to give sensitive information without fear. This method was applied on credit officers and heads of departments and some clients.

3.6. **Data Collection Instruments**

Data collection instruments are the tools that the researcher used to collect data from the respondents. A combination of tools were used as appropriate to make use of their different strength because none of the methods when used exclusively may collect sufficient data hence the following instruments were used namely; Interview guide, self-administered questionnaire and documentary review checklist.

3.6.1. **Interview Guide**

Face to face interviews were held between the researcher and the interviewee. The exercise involved the researcher having a printed out checklist with varying open ended questions linked to community participation and service delivery. These open ended questions were posed at every interaction or session. The researcher probed for more information, during the interactions while answers were recorded. The choice of this technique is that it is flexible and easy way of finding information out. The interview guides contained appropriate questions that captured liquidity management and performance of financial institutions.

3.6.2. **Self-administered Questionnaire**

A questionnaire is a set of written questions and or statements to which the research subjects are to respond in order to provide data, which are relevant to a research topic, (Mouton, 2001). A questionnaire was designed for data collection in accordance with the specifications of the
research questions. The community participation and service delivery questions had optional answers ranging from SD (1), D (2), NS (3), A (4) and SA (5) and were ranked as well from highest to lowest. The research tool had four sections which include; Section A: Background information of the respondents which was obtained using close ended questions; Section B: liquidity management practices; Section C: determinants of liquidity in commercial banks and Section D: effect of liquidity management on profitability of commercial banks. The above tool or instrument was applied on branch managers, Banking and loans officers as well as some clients (Attached Appendix).

3.7 Data Quality Control

Validity

Validity of the research instrument is the extent to which true differences among the objects are reflected on the characteristic being measured. The researcher used a questionnaire to collect data. Validity of this instrument was tested by first giving out the questionnaires to two experts (one in the human resource department and the other from the marketing department) other than those sampled; these were able to assess the different items of the questionnaires. Only items which were addressed as the objectives of the study were agreed upon.

Thereafter, a content validity index was computed using a formula where:

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

According to Creswell (2008) the content validity greater than 0.7 means that the research instrument is valid. From the study, the research instrument had 65 items, only 54 were rated relevant to the study, this resulted into a CVI of 0.83. Validity of the instrument was therefore ensured since the validity value computed was 0.83 which is greater than 0.7
Reliability

Refers to how consistent a research procedure or instrument is (Creswell, 2003). Hence reliability implies stability or dependability of an instrument in order to obtain information. Reliability of the three set of SAQs on all variables (liquidity management practices, determinants of liquidity in commercial banks, and effect of liquidity management on profitability of commercial banks) was tested using the Cronbach Alpha Moment Co-efficient provided by SPSS (Amin, 2005).

Cronbach’s Alpha is given as $\alpha = \frac{k}{k-1} \left( 1 - \frac{\sum SD^2i}{SD^2t} \right)$

Where:-

$K = $ the number of items

$\sum SD^2i = $ the variance of the total instrument.

$SD^2t = $ the variance of individual items

The calculated value of alpha was as follows

Table 2: Table of Cronbach Alpha coefficients on reliability

<table>
<thead>
<tr>
<th>Item</th>
<th>Cronbach’s Alpha ((\alpha))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquidity management practices</td>
<td>0.751</td>
</tr>
<tr>
<td>Determinants of liquidity in commercial banks</td>
<td>0.854</td>
</tr>
<tr>
<td>Effect of Liquidity Management on profitability of commercial banks</td>
<td>0.800</td>
</tr>
<tr>
<td>Overall</td>
<td>0.802</td>
</tr>
</tbody>
</table>

As the acceptable reliability coefficient value of alpha is 0.802 (Beebwa, 2007), the instruments were considered reliable.
3.8 Data Analysis

According to Crewell (2003), “data analysis is a systematic search for meaning. It is a way to process qualitative data so that what has been learned can be communicated to others. In this study, the Researcher coded and analyzed the data from the questionnaire and observations using a constant comparative method (Amin, 2005). Throughout the process of data analysis the Researcher read through transcribed text, and then went back to carefully review the text line-by-line to build categories, develop codes, and insert memos. The data was continuously reviewed in order to compare it with the emerging categories.

Quantitative data analysis involved the use of descriptive analysis in the Statistical Package for Social Scientists (SPSS). Descriptive statistics entailed determination of measures of central tendency such as mean; measures of dispersion such as standard deviation; frequency distributions; and percentages. Data was processed by editing, coding, entering, and then presented in comprehensive tables showing the responses of each category of variables. Analysis of research question one involved use of frequencies, means and standard deviation, research question two and three were analyzed using descriptive statistics analysis.

3.11 Measurement of Variables

The nominal scale was used to measure such variables as gender and marital status, among others. The level of perceived participation was rated on a five-point likert type scale. (Strongly agree to strongly disagree). Both open ended and closed ended questions was used for objective 2 and 3.

3.12 Research Ethical Considerations

The information gathered for the study from respondents was highly confidential. The consent of respondents was sought and respondents were assured of confidentiality of their responses. To
ensure privacy, the participants were informed prior that indeed their names were not required, that they had the right to leave questions unanswered for which they do not wish to offer the requisite information, and that the researcher was not put the respondent under pressure if this happens. To ensure confidentiality, the respondents were informed upfront that the information they give was solely to be used for academic purposes and data obtained on private matters was to be treated in confidence.
CHAPTER FOUR

PRESENTATION, INTERPRETATION AND DATA ANALYSIS

4.1 Introduction

The previous chapter focuses on the method. This chapter includes presentation, analysis and interpretation of findings based on the specific objectives of the study and is stretched starting with the introduction, followed with the response rate, demographic data of the respondents, descriptive statistics interlinked with qualitative results and inferential statistics answering the hypothesis statements.

4.2. Response Rate

In the study, the researcher used both the interview guides and self-administered questionnaire to aid the collection of data. From the results returned, it can be observed that out of 80 questionnaires issued, a total of 60 were returned fully completed, constituting (75%) while (20) questionnaire were not returned, constituting (25%). On the other hand, the researcher held, (10) interview sessions, out of the planned (10), resulting into a (100%) percentage return.

Table 3: Response rate

<table>
<thead>
<tr>
<th>Tool</th>
<th>(Planned/Scheduled)</th>
<th>(Received/ Held)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Questionnaires</td>
<td>80</td>
<td>60</td>
<td>75.0%</td>
</tr>
<tr>
<td>Interviews</td>
<td>10</td>
<td>10</td>
<td>100%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>87.5%</td>
</tr>
</tbody>
</table>

Source: Primary data
Table 1 above shows the response rate obtained from both the questionnaire and interview. From the data capture, a response rate of (87.5%) was obtained. According to Amin (2005), a response rate above 70% is good enough to represent a survey.

4.3 Demographic Characteristics of the Respondents

Bio data findings discussed in this section are based on the responses obtained from the field findings on demographic characteristics on gender of respondents, age of respondents as well as marital status of respondents and their education level as reflected in depth below:

4.3.1 Gender

Study findings in table 4 show the gender of the respondents who participated in the study.

Table 4: Gender of Respondents

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>40</td>
<td>57.1</td>
</tr>
<tr>
<td>Female</td>
<td>30</td>
<td>42.9</td>
</tr>
<tr>
<td>Total</td>
<td>70</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Primary Data, 2016

Study findings in Table 4 reveal that 57.1% (40) of the total respondents were male while 42.9 (30) were female. This implies that Stanbic bank employs all the gender. More still, since both men and women where represented in the study, the findings can easily be trusted by the population as unbiased.

4.3.2 Marital Status

Study findings in Table 5 shows the marital status of the respondents who participated in the study.
Table 5: Marital status

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>21</td>
<td>30</td>
</tr>
<tr>
<td>Married</td>
<td>49</td>
<td>70</td>
</tr>
<tr>
<td>Total</td>
<td>70</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Primary Data, 2016

Study findings in Table 3 reveal that 70% (49) of the total respondents were married whereas 30% (21) were single. Based on the statistics in the Table above, it's observed that the married formed the majority as this group tends to be stable, have family responsibilities to fulfill for instance; basic necessities including education (paying school), food (feeding), and health (medical bills) among others. This implies that most of the respondents were responsible enough to give sounding information on the effect liquidity management and performance of Stanbic bank.

4.3.3 Age

Study findings in Table 6 shows the age of respondents who participated in the study.

Table 6: Age of Respondents

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>25-35</td>
<td>40</td>
<td>57.1</td>
</tr>
<tr>
<td>36-45</td>
<td>14</td>
<td>20.0</td>
</tr>
<tr>
<td>46-55</td>
<td>10</td>
<td>14.3</td>
</tr>
<tr>
<td>55 and above</td>
<td>6</td>
<td>8.6</td>
</tr>
<tr>
<td>Total</td>
<td>70</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Primary Data, 2016
Study findings in Table 4 reveal that 57.1% (40) of the total respondents were aged between 25 and 35 years, 20% (14) were aged between 46 and 45 years, 14.3% (10) were aged between 46 and 55 years, while 8.6% (6) were aged above 55 years. Study findings show that the biggest percentage of bank employees are people who have just graduated from the university not more than 10 years ago. This implies that they have the academic knowledge on the effect of liquidity management and performance of financial institution specifically Stanbic bank Uganda limited.

4.3.4 Education

Study findings in Table 7 shows the education levels of the respondents who participated in the study.

Table 7: Education levels of the Respondents

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>8</td>
<td>11.4</td>
</tr>
<tr>
<td>Secondary</td>
<td>3</td>
<td>4.3</td>
</tr>
<tr>
<td>Diploma</td>
<td>5</td>
<td>7.1</td>
</tr>
<tr>
<td>Degree</td>
<td>47</td>
<td>67.1</td>
</tr>
<tr>
<td>Masters</td>
<td>7</td>
<td>10.0</td>
</tr>
<tr>
<td>Total</td>
<td>70</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Primary Data, 2016

Study findings in Table 7 reveal that 11.4% (8) of the total respondents had primary education, 4.3% (3) had secondary education, 7.1% (5) had diplomas, 67.1% (47) had degrees and 10% (7) had masters degrees. Study findings implies that most of the bank employees are graduates, this puts them in the best position to provide information which is essential towards the study. The number of respondents with primary and secondary education is mainly attributed to the
customers and some support staff at the bank. However, they are also well versed with the study, since they have been in the bank environment for some time.

4.3.5 Working Experience

Study findings in Table 8 shows the working experience of the respondents

Table 8: Working Experience

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 5 years</td>
<td>14</td>
</tr>
<tr>
<td>6 years to 15 years</td>
<td>47</td>
</tr>
<tr>
<td>16 years and above</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>70</td>
</tr>
</tbody>
</table>

Source: Primary Data, 2016

Study findings in Table 8 reveal that 20% of the total respondents have an experience of less than 5 years, 67.1% have an experience of 6 to 15 years while 12.9% have an experience of 16 years and above. This implies that most of the respondents had enough experience of the factors affecting leasing in financial institutions. This means that the study findings are sounding from an experienced population.

4.4 Liquidity Management Practices

Findings in this section are in response to the first research question. What are the different liquidity management practices in commercial banks in Uganda?
Table 9: Liquidity Management Practices

<table>
<thead>
<tr>
<th>Variable (N=180)</th>
<th>Attribute [Percentage (%) / Frequency]</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standic bank stores sufficient liquid assets in order to raise fund quickly</td>
<td>54.4% 29.4% 7.8% 4.4% 3.9%</td>
<td>1.74</td>
<td>1.04</td>
</tr>
<tr>
<td>Standic bank stores enough cash to enable it meet its payment obligations</td>
<td>14.4% 1.1% 16.1% 57.2% 11.1%</td>
<td>3.49</td>
<td>1.17</td>
</tr>
<tr>
<td>Standic bank supplies or withdraws from the market the amount of liquidity consistent with desired level of reserve money</td>
<td>11.7% 10.6% 5.0% 14.4% 58.3%</td>
<td>3.97</td>
<td>1.45</td>
</tr>
<tr>
<td>Standic bank makes a thorough assessment of the needs for funds in order to ensure availability of cash to fund normal bank activities</td>
<td>15.6% 11.1% 3.3% 57.2% 12.8%</td>
<td>3.40</td>
<td>1.28</td>
</tr>
<tr>
<td>The bank coordinates various sources of funds available to the institution under normal and stressed conditions in order to meet needed liquidity</td>
<td>7.8% 72.2% 7.2% 7.2% 5.6%</td>
<td>2.30</td>
<td>0.922</td>
</tr>
<tr>
<td>Standic bank carries out daily assessment of the liquidity conditions in the banking system, so as to determine its liquidity needs</td>
<td>9.4% 7.8% 13.9% 60.6% 8.3%</td>
<td>3.50</td>
<td>1.07</td>
</tr>
<tr>
<td>Standic bank carries out a daily analysis and detailed estimation of the size and timing of cash inflows and outflows over the coming days and weeks to minimize the risk that savers will be unable to access their deposits in the moment they demand them</td>
<td>6.7% 5.0% 11.7% 71.7% 5.0%</td>
<td>3.63</td>
<td>0.91</td>
</tr>
<tr>
<td>Standic bank carries out deposit mobilization to prevent idle and unproductive monies in the surplus economic unit</td>
<td>20.1% 61% 11.7% 7.2% 10.0%</td>
<td>1.91</td>
<td>1.39</td>
</tr>
</tbody>
</table>

Source: Primary data, 2017

Key: SD-Strongly Disagree D-Disagree ND-Neither agree nor Disagree A-Agree SA-Strongly Agree SD –Standard Deviation
Study findings in Table 9 reveal that 4.4% (8) of the total respondents strongly disagree that Stanbic bank stores sufficient liquid assets in order to raise fund quickly, 3.9% disagree, 7.8% (14) neither agree nor disagree, 54.4% agree while 29.3% strongly agree to the above. Findings show that the biggest percentage of respondents agree (83.8%) Stanbic bank stores sufficient liquid assets. The mean value of 1.74 and standard deviation of 1.04 shows that on average, most respondents agree to the above.

Study findings in Table 9 also reveal that 14.4% of the total respondents strongly disagree that Stanbic bank stores enough cash to enable it meet its payment obligations, 1.1% disagree, 16.1% neither agree nor disagree, 57.2% agree while 11.1% strongly agree to the above. Findings show that most respondents agree (68.3%) that Stanbic bank stores enough cash to enable it meet its payment obligations. The mean value of 3.49 and standard deviation of 1.17 shows that on average, most respondents agree to the above.

Study findings also show that 11.7% of the total respondents strongly disagree that Stanbic bank supplies or withdraws from the market the amount of liquidity consistent with desired level of reserve money, 10.6% disagree, 5.0% neither agree nor disagree, 14.4% agree while 58.3% strongly agree to the above. Findings show that most respondents agree (72.7%) that Stanbic bank supplies or withdraws from the market the amount of liquidity consistent with desired level of reserve money, this is also supported by the mean value of 3.97 and standard deviation of 1.45.

Finding further show that 15.6% of the total respondents strongly disagree that Stanbic bank makes a thorough assessment of the needs for funds in order to ensure availability of cash to fund normal bank activities, 11.1% disagree, 3.3% neither agree nor disagree, 57.2% agree while
12.8% strongly agree to the above. Finding show that most respondents agree (70%) that Stanbic bank makes a thorough assessment of the needs for funds.

Study finding show that 7.8% of the total respondents strongly disagree that bank coordinates various sources of funds available to the institution under normal and stressed conditions in order to meet needed liquidity, 72.2% disagree, 7.2% neither agree nor disagree, 7.2% agree while 5.6% strongly agree to the above. Finding imply that bank coordinates various sources of funds available to the institution.

Furthermore, study findings show that 9.4% of the total respondents strongly disagree that Stanbic bank carries out daily assessment of the liquidity conditions in the banking system, so as to determine its liquidity needs, 7.8% disagree, 13.9% neither agree nor disagree, 60.6% agree while 8.3% strongly agree to the above. Study findings show that most respondents (80%) disagree that Stanbic bank carries out daily assessment of the liquidity conditions in the banking system, this is further supported by the mean value of 2.3 and standard deviation of 0.922.

Findings in Table 9 further reveal that 6.7% of the total respondents strongly disagree that Stanbic bank carries out a daily analysis and detailed estimation of the size and timing of cash inflows and outflows over the coming days and weeks to minimize the risk that savers will be unable to access their deposits in the moment they demand them, 5.0% disagree, 11.7% neither agree nor disagree, 71.7% agree while 5.0% strongly agree to the above. Findings show that most respondents (76.7%) agree that Stanbic bank carries out a daily analysis and detailed estimation of the size and timing of cash inflows and outflows over the coming days and weeks. This is also supported by the mean value of 3.63 and standard deviation of 0.91.
More still, study findings reveal that 10% of the total respondents strongly disagree that Stanbic bank carries out deposit mobilization to prevent idle and unproductive monies in the surplus economic unit, 7.2% disagree, 11.7% neither agree nor disagree, 65% (13) agree while 6.1% (18) strongly agree to the above. Study findings show that most respondents (81.1%) agree that Stanbic bank carries out deposit mobilization to prevent idle and unproductive monies in the surplus economic unit, this supported by mean value of 3.91 and standard deviation of 1.39.

### 4.5 Determinants of Liquidity in Financial Institutions

Findings in this section are in response to the second research question; what are the different determinants of liquidity in commercial banks of Uganda?

**Table 10: Determinants of liquidity in financial institutions**

<table>
<thead>
<tr>
<th>Variable (N=180)</th>
<th>Attribute (%)/Frequency</th>
<th>[Percentage]</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Asset Quality</strong></td>
<td>Stanbic bank regularly monitors the quality of its assets in terms of over exposure to specific risk trends in non-performing loans and health, and profitability of borrowers</td>
<td>15.6%</td>
<td>15.0%</td>
<td>7.2%</td>
</tr>
<tr>
<td></td>
<td>Stanbic bank ensures that its borrowers do not default on loan payment agreement in order to avoid cash flow problems, which may affect its liquidity position</td>
<td>10.0%</td>
<td>67.2%</td>
<td>4.4%</td>
</tr>
<tr>
<td></td>
<td>Stanbic bank continuously regularly captures large maturity mismatches to enhance its profitability potential, hence reducing the risk of losses.</td>
<td>16.1%</td>
<td>12.2%</td>
<td>7.2%</td>
</tr>
<tr>
<td><strong>Macro-Economic Factors</strong></td>
<td>Stanbic bank monitors profitability, loan growth as well as GDP and monetary policy interests</td>
<td>14.4%</td>
<td>69.4%</td>
<td>8.3%</td>
</tr>
<tr>
<td></td>
<td>Stanbic bank regularly makes an assessment of liquidity risk measures in emerging markets</td>
<td>70.0%</td>
<td>10.6%</td>
<td>7.2%</td>
</tr>
</tbody>
</table>
The bank has a team that regularly monitors international financial trends like financial crisis, money laundering and many others. 

<table>
<thead>
<tr>
<th>Percentage Distribution</th>
<th>8.9%</th>
<th>7.8%</th>
<th>7.2%</th>
<th>4.4%</th>
<th>71.7%</th>
<th>4.22</th>
<th>1.36</th>
</tr>
</thead>
</table>

The bank closely monitors and has control systems to ensure liquidity in case of changes in macroeconomic conditions. 

<table>
<thead>
<tr>
<th>Percentage Distribution</th>
<th>7.8%</th>
<th>12.2%</th>
<th>9.4%</th>
<th>58.9%</th>
<th>11.7%</th>
<th>3.54</th>
<th>1.09</th>
</tr>
</thead>
</table>

**Capital Structure**

<table>
<thead>
<tr>
<th>Percentage Distribution</th>
<th>5.6%</th>
<th>4.4%</th>
<th>8.9%</th>
<th>15.0%</th>
<th>66.1%</th>
<th>4.31</th>
<th>1.15</th>
</tr>
</thead>
</table>

Stanbic bank has a system that improves capital adequacy, governance and liquidity risk management. 

<table>
<thead>
<tr>
<th>Percentage Distribution</th>
<th>6.7%</th>
<th>7.8%</th>
<th>4.4%</th>
<th>10.6%</th>
<th>70.6%</th>
<th>4.30</th>
<th>1.25</th>
</tr>
</thead>
</table>

Stanbic bank enhances the transparency of the operations of credit institutions. 

<table>
<thead>
<tr>
<th>Percentage Distribution</th>
<th>11.7%</th>
<th>6.7%</th>
<th>11.7%</th>
<th>60.0%</th>
<th>10.0%</th>
<th>3.50</th>
<th>1.13</th>
</tr>
</thead>
</table>

Stanbic bank ensures that accrued reserves of liquid assets is sufficient to withstand adverse liquidity shocks. 

**Source: Primary data, 2017**

**Key:** SD-Strongly Disagree  D-Disagree  ND-Neither agree nor Disagree  
A-Agree  SA-Strongly Agree

### 4.5.1 Asset Quality

Study findings in Table 10 reveal that 15.6% of the total respondents strongly disagree that Stanbic bank regularly monitors the quality of its assets in terms of over exposure to specific risk trends in non-performing loans and health, and profitability of borrowers, 15.0% disagree, 7.2% neither agree nor disagree, 46.7% agree while 15.6% strongly agree to the. Findings show that most respondents (62.3%) agree that Stanbic bank regularly monitors the quality of its assets, this also supported with mean value of 3.32 and standard deviation of 1.33.

Study findings also reveal that 10% of the total respondents strongly disagree that Stanbic bank ensures that its borrowers do not default on loan payment agreement in order to avoid cash flow problems, which may affect its liquidity position, 67.2.0% disagree, 4.4% neither agree nor
disagree, 8.3% agree while 9.4% (18) strongly agree to the above. Findings show that most respondents disagree (77.2%) Stanbic bank ensures that its borrowers do not default on loan payment agreement, and this is supported by the mean value of 2.51 and standard deviation of 1.82.

More still, study findings show that 16.1% of the total respondents strongly disagree that Stanbic bank continuously regularly captures large maturity mismatches to enhance its profitability potential, hence reducing the risk of losses, 12.2% disagree, 7.2% neither agree nor disagree, 5.0% agree while 59.4% strongly agree to the above. Findings show that most respondents agree (64.4%) that Stanbic bank continuously regularly captures large maturity mismatches to enhance its profitability potential, and this is supported by the mean value of 3.79 and standard deviation of 1.60.

### 4.5.2 Macro-economic factors

Study findings reveal that 14.4% of the total respondents strongly disagree Stanbic bank monitors profitability, loan growth as well as GDP and monetary policy interests, 69.4% disagree, 8.3% neither agree nor disagree, 5.6% agree while 2.2% strongly agree to the above. Study findings show that most respondents disagree (83.8%) Stanbic bank monitors profitability, loan growth as well as GDP and monetary policy interests and this is supported by the mean value of 2.11 and standard deviation of 0.80.

Furthermore, study findings reveal that 70.0% of the total respondents strongly disagree that Stanbic bank regularly makes an assessment of liquidity risk measures in emerging markets, 10.6% disagree, 7.2% neither agree nor disagree, 4.4% agree while 7.8% strongly agree to the above. Findings show that most respondents disagree (80.6%) that Stanbic bank regularly makes
an assessment of liquidity risk measures in emerging markets, and this is supported by the mean value of 1.70 and standard deviation of 1.5.

Study findings also reveal that 8.9% of the total respondents strongly disagree The bank has a team that monitors international financial trends like financial crisis, money laundering and many others, 7.8% disagree, 7.2% neither agree nor disagree, 4.4% agree while 71.7% strongly agree to the above. Findings show that most of the respondents agree (76.1%) that the bank has a team that monitors international financial trends and this is supported by the mean value of 4.22 and standard deviation of 1.36.

More still, study findings show that 7.8% of the total respondents strongly disagree that The bank closely monitors and has control systems to ensure liquidity in case of changes in macroeconomic conditions, 12.2% disagree, 9.4% neither agree nor disagree, 58.9% agree while 11.7% strongly agree to the above. Study findings show that most respondents agree (70.6%) that the bank closely monitors and has control systems to ensure liquidity in case of changes in macroeconomic conditions and this is further supported by the mean value of 3.54 and standard deviation of 1.09.

4.5.3 Capital Structure

Furthermore, study findings reveal that 5.6% of the total respondents strongly disagree that Stanbic bank has a system that improves capital adequacy, governance and liquidity risk management, 4.4% disagree, 8.9% neither agree nor disagree, 15% agree while 66.1% strongly agree to the above. Study findings show that most respondents agree (81.1%) that Stanbic bank has a system that improves capital adequacy, governance and liquidity risk management and this is also supported by the mean value of 4.31 and standard deviation of 1.15.
Study findings reveal that 6.7% of the total respondents strongly disagree that Stanbic bank enhances the transparency of the operations of credit institutions, 7.8% disagree, 4.4% neither agree nor disagree, 10.6% agree while 70.6% strongly agree to the above. Findings show that most respondents (81.2%) agree that Stanbic bank enhances the transparency of the operations of credit institutions, which is also supported by the mean value of 4.30 and standard deviation of 1.25.

More still, study findings show that 11.7% of the total respondents strongly disagree that Stanbic bank ensures that accrued reserves of liquid assets is sufficient to withstand adverse liquidity shocks, 6.7% disagree, 11.7% neither agree nor disagree, 60.0% agree while 10.0% strongly agree to the above. Study findings show that most respondents (70%) agree that Stanbic bank ensures that accrued reserves of liquid assets is sufficient to withstand adverse liquidity shocks. This is further supported by mean value of 3.5 and standard deviation of 1.13.

### 4.4 Effect of Liquidity Management on profitability of banks commercial banks in Uganda

Findings in this section are in response to the third research question. What is the effect of Liquidity Management on profitability of banks commercial banks in Uganda?

| Table 11: Effect of Liquidity Management on profitability of Stanbic Bank |
|------------------|------------------|----------|-----------------|-----------------|
| **Variable (N=180)** | **Attribute [Percentage (%)/Frequency]** | **Mean** | **SD** |
| | **SD** | **D** | **ND** | **A** | **SA** | **D** | **ND** | **A** | **SA** | **D** | **ND** | **A** | **SA** |
| Liquidity is a precondition to ensure that banks are able to meet its short-term obligations | 6.1% | 12.2% | 7.8% | 12.2% | 61.7% | 4.11 | 1.31 |
| Inability to meet the short-term liabilities affects the bank's operations, hence may lead to losses | 8.9% | 7.8% | 7.2% | 4.4% | 71.7% | 4.22 | 1.36 |
Inadequate cash or liquid assets on hand may force a financial institution to miss the incentives given by the suppliers of credit, services, and goods as well.

<table>
<thead>
<tr>
<th>Adoption of liquidity strategies by financial institutions increase Return on Assets (ROA)</th>
<th>7.8%</th>
<th>12.2%</th>
<th>9.4%</th>
<th>58.9%</th>
<th>11.7%</th>
<th>3.54</th>
<th>1.09</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficient liquidity management ensures successful operations of commercial banks which ensures profitability</td>
<td>5.6%</td>
<td>4.4%</td>
<td>8.9%</td>
<td>15.0%</td>
<td>66.1%</td>
<td>4.31</td>
<td>1.15</td>
</tr>
<tr>
<td>Poor liquidity management affects earnings and capital which may even lead to insolvency and bank failure</td>
<td>14.4%</td>
<td>1.1%</td>
<td>16.1%</td>
<td>57.2%</td>
<td>11.1%</td>
<td>3.49</td>
<td>1.17</td>
</tr>
<tr>
<td>Distressed banks only access funds from the market at high interest rate which reduces their profitability</td>
<td>11.7%</td>
<td>10.6%</td>
<td>5.0%</td>
<td>14.4%</td>
<td>58.3%</td>
<td>3.97</td>
<td>1.45</td>
</tr>
<tr>
<td>The ratio of liquid assets to customer and short term funding is positively related to ROA.</td>
<td>11.7%</td>
<td>6.7%</td>
<td>11.7%</td>
<td>60.0%</td>
<td>10.0%</td>
<td>3.50</td>
<td>1.13</td>
</tr>
</tbody>
</table>

**Source: Primary data, 2017**

**Key:** SD-Strongly Disagree D-Disagree ND-Neither agree nor Disagree A-Ag SA-Strongly Agree

Study findings in Table 11 reveal that 6.1% of the total respondents strongly disagree that liquidity is a precondition to ensure that banks are able to meet its short-term obligations, 12.2% disagree, 7.8% neither agree nor disagree, 12.2% agree while 61.7% strongly agree to the above. Findings show that most respondents agree (73.9%) that schools liquidity is a precondition to ensure that banks are able to meet its short-term obligations and this is further supported by the mean value of 4.11 and standard deviation of 1.31.
Study findings also reveal that 8.9% of the total respondents strongly disagree that Inability to meet the short-term liabilities affects the bank's operations, hence may lead to losses, 7.8% disagree, 7.2% neither agree nor disagree, 4.4% (8) agree while 71.7% strongly agree to the above. Findings show that most of the respondents agree (76.1%) that inability to meet the short-term liabilities affects the bank's operations and this is supported by the mean value of 4.22 and standard deviation of 1.36.

More still, study findings show that 7.8% of the total respondents strongly disagree that Inadequate cash or liquid assets on hand may force a financial institution to miss the incentives given by the suppliers of credit, services, and goods as well, 12.2% disagree, 9.4% neither agree nor disagree, 58.9% agree while 11.7% strongly agree to the above. Study findings show that most respondents agree (70.6%) that inadequate cash or liquid assets on hand may force a financial institution to miss the incentives given by the suppliers of credit, services, and goods as well and this is further supported by the mean value of 3.54 and standard deviation of 1.09.

Furthermore, study findings reveal that 5.6% of the total respondents strongly disagree that adoption of liquidity strategies by financial institutions increase Return on Assets (ROA), 4.4% disagree, 8.9% neither agree nor disagree, 15% agree while 66.1% strongly agree to the above. Study findings show that most respondents agree (81.1%) to the above.

Study findings in Table 11 also reveal that 14.4% of the total respondents strongly disagree that efficient liquidity management ensures successful operations of commercial banks which ensures profitability, 1.1% disagree, 16.1% neither agree nor disagree, 57.2% agree while 11.1% strongly agree to the above. Findings show that most respondents agree (68.3%) Efficient liquidity
management ensures successful operations of commercial banks. The mean value of 3.49 and standard deviation of 1.17 shows that on average, most respondents agree to the above.

Study findings also show that 11.7% of the total respondents strongly disagree that poor liquidity management affects earnings and capital which may even lead to insolvency and bank failure, 10.6% disagree, 5.0% neither agree nor disagree, 14.4% agree while 58.3% strongly agree to the above. Findings show that most respondents agree (72.7%) that poor liquidity management affects bank earnings and capital, this is also supported by the mean value of 3.97 and standard deviation of 1.45.

Finding further show that 15.6% of the total respondents strongly disagree that distressed banks only access funds from the market at high interest rate which reduces their profitability, 11.1% disagree, 3.3% neither agree nor disagree, 57.2% agree while 12.8% strongly agree to the above. Finding show that most respondents agree that Distressed banks only access funds from the market at high interest rates.

More still, study findings show that 11.7% of the total respondents strongly disagree that the ratio of liquid assets to customer and short term funding is positively related to ROA, 6.7% disagree, 11.7% neither agree nor disagree, 60.0% agree while 10.0% strongly agree to the above. Study findings show that most respondents (70%) agree that ratio of liquid assets to customer and short term funding is positively related to ROA. This is further supported by mean value of 3.5 and standard deviation of 1.13.
CHAPTER FIVE

SUMMARY, DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introductions

This chapter presents the study discussions, conclusions and recommendations drawn from the study findings. The purpose of this study was to determine the effect of liquidity management in commercial banks of Uganda, taking Stanbic Bank Uganda Limited as a case study.

5.1 Summary of the Study

The study examined the identify the different liquidity management practices in commercial banks in Uganda, examined the different determinants of liquidity in commercial banks of Uganda, as well as determining the effect of Liquidity Management on profitability of commercial banks in Uganda and the summaries in this line are presented as below.

5.1.1 Different liquidity management practices in commercial banks of Uganda.

The first objective was to identify the different liquidity management practices in commercial banks in Uganda. The study found out that; Stanbic bank stores enough cash to enable it meet its payment obligations, Stanbic bank supplies or withdraws from the market the amount of liquidity consistent with desired level of reserve money, Stanbic bank makes a thorough assessment of the needs for funds in order to ensure availability of cash to fund normal bank activities, Stanbic bank carries out daily assessment of the liquidity conditions in the banking system, so as to determine its liquidity needs, and Stanbic bank carries out a daily analysis and detailed estimation of the size and timing of cash inflows and outflows over the coming days and weeks.
to minimize the risk that savers will be unable to access their deposits in the moment they demand them

5.1.2 Determinants of Liquidity in Financial Institutions

The second objective was to examine the different determinants of liquidity in commercial banks of Uganda. The study found out that; Stanbic bank regularly monitors the quality of its assets in terms of over exposure to specific risk trends in non-performing loans and health, and profitability of borrowers, Stanbic bank continuously regularly captures large maturity mismatches to enhance its profitability potential, hence reducing the risk of losses, the bank has a team that monitors international financial trends like financial crisis, money laundering and many others, the bank closely monitors and has control systems to ensure liquidity in case of changes in macroeconomic conditions, Stanbic bank has a system that improves capital adequacy, governance and liquidity risk management, Stanbic bank enhances the transparency of the operations of credit institutions, and Stanbic bank ensures that accrued reserves of liquid assets is sufficient to withstand adverse liquidity shocks.

5.1.3 Effect of Liquidity Management on profitability of Stanbic Bank

The third objective was to determine the effect of Liquidity Management on profitability of commercial banks in Uganda. The study found out that; Liquidity is a precondition to ensure that banks are able to meet its short-term obligations, Inability to meet the short-term liabilities affects the bank's operations, hence may lead to losses, Inadequate cash or liquid assets on hand may force a financial institution to miss the incentives given by the suppliers of credit, services, and goods as well, Adoption of liquidity strategies by financial institutions increase Return on Assets, Efficient liquidity management ensures successful operations of commercial banks which ensures profitability, Poor liquidity management affects earnings and capital which may even
lead to insolvency and bank failure. Distressed banks only access funds from the market at high interest rate which reduces their profitability and ratio of liquid assets to customer and short term funding is positively related to ROA.

5.2 Discussion of findings

5.2.1 Different liquidity management practices in commercial banks

Findings show that Stanbic bank has effective liquidity management practices. Effective liquidity management require well-regulated sector, since the liquidity and financial risk exposure is very high. There is need to revamp the whole banking sector through creation of high awareness levels amongst the bank employees directly involved in liquidity management. These play a very critical role and need to be strong in order to ensure that commercial banks are strong. Since Commercial banks contribute highly on the performance of the Ugandan financial market, sound liquidity will play a great role in strengthening the contribution of Commercial banks to the economy of the country. The findings of this study are similar to those of Olongo (2013), Wanjohi (2013) and Kavale (2016). The assessment of liquidity management practices of the commercial banks by Wanjohi (2013) found a direct relationship between liquidity management and financial performance. Also Olongo (2013) found that the performance of commercial banks is significantly affected by liquidity management practices. The study found a positive correlation between ROA and liquidity management practices. However, the results contradict those of Bassey (2015), Molefe and Muzindutsi (2016) and Vintila and Nenu (2016) who found a negative relationship between the two variables.

5.2.2 Determinants of Liquidity in Commercial Banks of Uganda

The study found out that; Stanbic bank regularly monitors the quality of its assets, it regularly captures large maturity mismatches to enhance its profitability potential, it has a team that
monitors international financial trends, it has control systems to ensure liquidity in case of changes in macroeconomic conditions, it has a system that improves capital adequacy, governance and liquidity risk management, it enhances the transparency of the operations of credit institutions, and it ensures that accrued reserves of liquid assets is sufficient to withstand adverse liquidity shocks. Data analysis output show that liquidity indicators effect positively on the profitability of these banks, and this result is consistent with the findings mentioned by (Beck & Hesse, 2006) where he found in his study that the banking liquid assets effect on profitability, which was conducted on the 90 banks in Europe, North America, and Australia during the period (1972–1981). It is noted that an increase in the investment ratio, as well as in the quick ratio leads to an increase in profitability by rising the return on equity (ROE), and that means the profitability in the commercial banks increases with an increase in the quick ratio and the investment ratio, this result is consistent with the findings of (Adebayo et al, 2011) in their research, and is contrary to the conclusion reached in the study of (Samina & Ayub, 2013).

It is noted that an increase in the investment ratio, as well as in the quick ratio leads to an increase in profitability by rising the return on equity (ROE), and that means the profitability in the commercial banks increases with an increase in the quick ratio and the investment ratio, this result is consistent with the findings of (Adebayo et al, 2011) in their research, and is contrary to the conclusion reached in the study of (Samina & Ayub, 2013).

The results are also consistent with the view that there is a significant negative relationship between net interest margin and funding liquidity risk. Other findings here are also consistent with the findings of Molefe and Muzindutsi (2016) who found an insignificant relationship between net interest margin and market liquidity. Inconsistencies with the researcher’s findings
are findings by Mathuva (2010), and Rahaman (2010) who found a significant positive relationship between market liquidity risk and net interest income.

Capital adequacy as a determinant of liquidity has a significant negative impact on bank performance measured by return on equity (ROE). The results are consistent with Sehrish et al, (2011) and Hoffmann, (2011) who found a control of liquidity indicators has significant positive relationship with bank profitability. This implies that, setting up and monitoring of liquidity determinants has a positive impact on commercial banks” performance if not counteracted by increased investments. Net interest margin to total assets has a positive and statistically significant impact on returns on equity for domestic commercial banks in Uganda. This implies that, domestic commercial banks in Uganda should rely mostly on liquidity indicators/determinants in order to maximize financial performance.

5.2.3 Effect of Liquidity Management on Profitability of Commercial Banks in Uganda

The study found out that Liquidity management has a positive impact on performance of commercial banks in Uganda. Findings are in line with findings of Athanasoglou, Delis and Staikorouras (2006), which show that cash management is very critical as a liquidity management tool in Commercial banks. Therefore, Commercial banks need to address the liquidity parameters critically to ensure that there is adequate cash management policy within the institutions to ensure optimal financial performance since they have a great role on the achievement of the Vision 2020 and the sector is a great contributor of the financial sector in the Ugandan economy. The management need to ensure there are adequate internal cash management controls to ensure that there is optimal cash, strategies are in place during minimal cash and surplus cash since either of the side will contribute to liquidity risks to the institution.
5.3 Conclusions

5.3.1 Different Liquidity Management Practices in Commercial banks

With regard to research question 1, study findings reveal that liquidity management practices at Stanbic bank limited include; storage of cash, supply or withdraws of liquidity consistent with desired level of reserve money from market, daily assessment of liquidity conditions, as well as daily analysis and detailed estimation of the size and timing of cash inflows and outflows.

5.3.2 Determinants of Liquidity in Commercial Banks of Uganda

With respect to research question 2, results showed that with reference to asset quality; Stanbic bank regularly monitors the quality of its assets, and also continuously captures large maturity mismatches to enhance profitability potential. In reference to macro-economic factors, Stanbic bank; has a team that regularly monitors international financial trends, as well as closely monitoring liquidity in macroeconomic platform. With reference to capital structure, Stanbic bank has a system that improves capital adequacy, governance and liquidity risk, the bank also enhances transparency of its operations of credit as well as ensuring that reserves of liquid assets are sufficient to withstand adverse liquidity shocks.

5.3.3 Effect of Liquidity Management on Profitability of Commercial Banks in Uganda

With regard to research question 3, results showed that liquidity; is a precondition for daily operation, it affects bank operation, may lead banks to miss on incentives given by suppliers of credit, service and goods; adoption of liquidity strategies increases ROA, liquidity management ensures successful operations, improves earnings and capital; distressed banks only access funds from market at high interest rates which reduces profitability and the ration of liquid assets to customer and short term funding is positively related to ROA.
5.4 Recommendations

The following are some of the recommendations that the researcher came up with in regard to the gaps identified during the discussion:

- There is a need to invest the excess of liquidity available at the banks, in various aspects of investments in order to increase the banks’ profitability and to get benefits from the time value of the available money.

- Commercial banks should adopt a general framework for liquidity management to assure a sufficient liquidity for executing their works efficiently, and there is a need to make an analytical study of the liquidity evolution rates to assess the banks’ ability to achieve a balance between sources and uses of funds.

- Banks need to adopt a scientific methods in detection of the strengths and weaknesses points of liquidity, especially in light of the sudden circumstances that may be exposed by banks.

- Bank managers should identify and monitor key business drivers (e.g. Loan and deposit margins) within the framework of analysis.

- Bank officials should be trained in the areas of liquidity management and liquidity changing conditions should not be handled with levity.

- Bank managers should be forward looking, and focus on operational efficiency of the banking industry since past trends do not seem to be effective in the face of liquidity crisis.

- High quality liquidity assets buffer sufficient to hedge sudden liquidity outflows should be maintained and there should be regular review of prudential guidelines for efficiency.
• Banks should adopt optimum liquidity model for maximum return on investment, survival, stability, growth and development of banking system in Uganda.

5.5. Limitations

These refer to what limited the generalizability of the study, for instance a small sample selected, Research funds available to the researcher were limited to speed up the research process; however the researcher used the limited resource available to spend up the findings. The research was basically on financial related matter; of which some respondents were not be willing to give the required information calling it ‘classified’, however the researcher assured them that data will be used for academic purposes only, the researcher succeeded.

5.6 Recommendations for further Research

In future, there is need to carry out an investigation of determinants of commercial bank performance in Uganda
REFERENCES


Claeys, S., Vander Vennet R (2008). Determinants of bank interest margin in Central and Eastern Europe: a comparison with the west economic systems 32,197-216


Davydenko, (2011) Determinants of bank profitability in Ukraine, Undergraduate Economic Review; Vol.7 Iss1, Article 2, at http://digitalcommons.iwu.edu/uet/vol7/iss1/2.


http://ssrn.com/abstract=2149816


Implementations for Emerging Market banking, Contemporary Economics Policy, 20, N0.3


APPENDICES

APPENDIX 1: QUESTIONNAIRE TO RESPONDENTS

Dear respondents

This questionnaire is purely for academic purpose and it is intended to find out the effect of liquidity management on the performance of commercial banks, a case of Stanbic bank Uganda limited. You are therefore kindly requested to spare a few minutes of your precious time to tick and express your opinion about some aspects of the spaces provided. Your answers will be treated with strict Demographic characteristics.

SECTION A: BACKGROUND INFORMATION

1. Sex
   - Female
   - Male

2. Marital status
   - Single
   - Married

3. Age
   - 25-35
   - 36-45
   - 46-55
   - 55 and above

4. Working experience
   - Less than 5 years
   - 6 years to fifteen years
   - Sixteen years and above
SECTION B: LIQUIDITY MANAGEMENT PRACTICES

6. In this question, please tick the most appropriate option as shown below to show your response;

   5= Strongly Agree;  4 = Agree; 3 = Not Sure; 2 = Disagree; 1 = Strongly Disagree.

<table>
<thead>
<tr>
<th>No.</th>
<th>Independent Variable: Liquidity management practices</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Not Sure</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
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<tbody>
<tr>
<td>i)</td>
<td>Stanbic bank stores sufficient liquid assets in order to raise fund quickly</td>
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<td>ii)</td>
<td>Stanbic bank stores enough cash to enable it meet its payment obligations</td>
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<td>iii)</td>
<td>Stanbic bank supplies or withdraws from the market the amount of liquidity consistent with desired level of reserve money</td>
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<td>iv)</td>
<td>Stanbic bank makes a thorough assessment of the needs for funds in order to ensure availability of cash to fund normal bank activities</td>
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<td>v)</td>
<td>The bank coordinates various sources of funds available to the institution under normal and stressed conditions</td>
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in order to meet needed liquidity

vi) Stanbic bank carries out daily assessment of the liquidity conditions in the banking system, so as to determine its liquidity needs

vii) Stanbic bank carries out a daily analysis and detailed estimation of the size and timing of cash inflows and outflows over the coming days and weeks to minimize the risk that savers will be unable to access their deposits in the moment they demand them

viii) Stanbic bank carries out deposit mobilization to prevent idle and unproductive monies in the surplus economic unit

7. In your own view, how has Stanbic bank managed its liquidity in order to ensure effective operation?

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SECTION C: DETERMINANTS OF LIQUIDITY IN FINANCIAL INSTITUTIONS

8. In this question, please tick the most appropriate option as shown below to show your response;

5= Strongly Agree; 4 = Agree; 3 = Not Sure; 2 = Disagree; 1 = Strongly Disagree.

<table>
<thead>
<tr>
<th>No.</th>
<th>Independent Variable: Liquidity management practices</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Not Sure</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
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<td><strong>Asset quality</strong></td>
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<td>i) Stanbic bank regularly monitors the quality of its assets in terms of over exposure to specific risk</td>
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<td>trends in non-performing loans and health, and profitability of borrowers</td>
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<td>ii) Stanbic bank ensures that its borrowers do not default on loan payment agreement in order to</td>
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<td>avoid cash flow problems, which may affect its liquidity position</td>
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<td>iii) Stanbic bank continuously regularly captures large maturity mismatches to enhance its</td>
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<td>profitability potential, hence reducing the risk of losses.</td>
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<thead>
<tr>
<th><strong>Macro-economic factors</strong></th>
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<tbody>
<tr>
<td>i) Stanbic bank monitors profitability, loan growth as well as GDP and monetary policy interests</td>
</tr>
<tr>
<td>ii) Stanbic bank regularly makes an assessment of liquidity risk measures in emerging markets</td>
</tr>
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<td>iii) The bank has a team that monitors international financial trends like financial crisis, money</td>
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<tr>
<td>laundering and many others</td>
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<tr>
<td>iv) The bank closely monitors and has control systems to ensure liquidity in case of changes in</td>
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<td>macroeconomic conditions</td>
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<table>
<thead>
<tr>
<th><strong>Capital structure</strong></th>
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<tbody>
<tr>
<td>i) Stanbic bank has a system that improves capital adequacy, governance and liquidity risk</td>
</tr>
<tr>
<td>management</td>
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<td>ii) Stanbic bank enhances the transparency of the operations of credit institutions</td>
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<td>iii) Stanbic bank ensures that accrued reserves of liquid assets is sufficient to withstand adverse</td>
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<td>liquidity shocks</td>
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<th>9. In your own view, what are other determinants of liquidity in Stanbic bank Uganda limited?</th>
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</table>
SECTION D: LIQUIDITY MANAGEMENT AND PROFITABILITY OF BANKS

10. In this question, please tick the most appropriate option as shown below to show your response;

5 = Strongly Agree; 4 = Agree; 3 = Not Sure; 2 = Disagree; 1 = Strongly Disagree.

<table>
<thead>
<tr>
<th>No.</th>
<th>Independent Variable: Liquidity management practices</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Not Sure</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
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</thead>
<tbody>
<tr>
<td>i)</td>
<td>Liquidity is a precondition to ensure that banks are able to meet its short-term obligations</td>
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<td>ii)</td>
<td>Inability to meet the short-term liabilities affects the bank’s operations, hence may lead to losses</td>
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<td>iii)</td>
<td>Inadequate cash or liquid assets on hand may force a financial institution to miss the incentives given by the suppliers of credit, services, and goods as well</td>
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<td>iv)</td>
<td>Adoption of liquidity strategies by financial institutions increase Return on Assets (ROA)</td>
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<td>v)</td>
<td>Efficient liquidity management ensures successful operations of commercial banks which ensures profitability</td>
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<td>vi)</td>
<td>Poor liquidity management affects earnings and capital which may even lead to insolvency and bank failure</td>
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<td>vii)</td>
<td>Distressed banks only access funds from the market at high interest rate which reduces their profitability.</td>
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<td>viii)</td>
<td>The ratio of liquid assets to customer and short term funding is positively related to ROA.</td>
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</table>
11. In your own view, what is the effect of liquidity management on profitability of Stanbic bank?

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Thank you for your positive cooperation
APPENDIX 2: INTERVIEW GUIDE

1. Gender of respondents
2. How many years have you been in Stanbic bank?
3. What are the common liquidity management practices in Stanbic bank?
4. How does the liquidity management practices affect performance of Stanbic bank Uganda Limited?
5. What are the determinants of liquidity in Stanbic bank?
6. How does the above determinants of liquidity affect the performance of Stanbic bank?
7. In your own view, what is the effect of liquidity management on the profitability of Stanbic bank?
8. How can you advise Stanbic bank on the best practices that can be adopted in order to improve its liquidity?
APPENDIX 3: SAMPLE SIZE DETERMINATION

Table giving recommended sample size (s) for given populations (N)

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<tr>
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“S” is sample size

Using the above methods as a guideline, the following section aims to compare two approaches in determining the sample size of a population using a) Krejcie and Morgan (1970) and b) Cohen Statistical Power Analysis.

Estimation of sample size in this research using Krejcie and Morgan was employed. Krejcie and Morgan (1970) used the following formula to determine the sampling size.

\[ S = \frac{X^2NP (1 - P)}{d^2 (N - 1)} + X^2P (1 - P) \]

\( S \) = required sample size

\( X^2 \) = the table value of chi-square for one degree of freedom at the desired confidence level.

\( N \) = the population size

\( P \) = the population proportion (assumed to be .50 since this would provide the maximum sample size)

\( d \) = the degree of accuracy expressed as a proportion (.05)