## PAN AFRICAN INSTITUTE FOR DEVELOPMENT -WEST AFRICA P.O BOX 133, BUEA, CAMEROON



### DEPARTMENT OF ACCOUNTING AND FINANCE

THE EFFECT OF LIQUIDITY RISK MANAGEMENT STRATEGY AND THE FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN CAMEROON

CASE STUDY: AFRILAND FIRST BANK (CCEI), YAOUNDE

A Thesis submitted to the Department of Accounting and Finance, in Partial Fulfillment of the Requirements for the Award of a Master of Science (M.Sc) degree in Accounting and Finance

 $\mathbf{BY}$ 

### NFOR-BUDI YEMNGANG

Supervisor Dr. FUAMENYA Francis

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### **CERTIFICATION**

The thesis of **Nfor-Budi Yemngang** (**PAIDWA00121**) entitled, "The Effect Of Liquidity Risk Management Strategy And The Financial Performance Of Commercial Banks In Cameroon: The case of AFRILAND FIRST BANK YAOUNDE" in partial fulfillment of the requirements for the award of the degree Master of Science (Msc) In Sustainable Development with Specialization in Accounting and Finance at the Pan African Institute For Development For West Africa (PAID-WA), Buea has been read, examined and approved by:

Signature
Date
Dr. FUAMENYA FRANCIS
(Supervisor)

## **DECLARATION**

I,	NFOR-BUDI	YEMNGANG,	holder	of	matriculation	n number
PAI	DWA00121 her	eby declare that th	nis researc	h pro	ject is writter	by me and
has	not been present	ed before in any f	orm for a	caden	nic use.	
	borrowed ideas quotations	have been duly	acknowle	dged	by means of	references
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Dat	e					
NF	OR-BUDI YEM	INGANG				
The	above undertak	ing is endorsed by				
Sign	nature					
Dat	e					
Dr.	FUAMENYA I	Francis				
(Su <sub>]</sub>	pervisor)					

## **DEDICATION**

To God Almighty and to my entire family.

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### **Abbreviations and Acronyms**

**BEAC** Banque des Etats de l'Afrique Centrale

BICEC Banque Internationale pour le Credit et de l'Epargne au Cameroun

**CBC** Commercial Bank of Cameroon

**CCC** Cash Conversion Cycle

**COBAC** Commission Bancaire d'Afrique Centrale

**DEP** Customer Deposits

**ECCAS** Economic Community of Central African States

**FSAP** Financial Sector Assessment Program

**FSSA** Financial System Stability Assessment

GCE General Certificate of Education

**GDP** Gross Domestic Product

**GE** Guinee Equatorial

**HIPC** Highly Indebted Poor Countries' Initiative

**LEV** Leverage

MS Excel Microsoft Excel

NGO Non Governmental Organization

**NPLs** Non Performing Loans

**NPV** Net Present Value

**PAID** Pan African Institute for Development

**PBT** Profit Before Tax

**RMP** Risk Management Practices

SCB Societe Commerciale des Banques au Cameroun

**SD** Standard Deviation

SGBC Societe Generale des Banques au Cameroun

**SME** Small and Medium size Enterprises

SPSS Statistical Package for Social Science

SSA Sub-Saharan Africa

**UAE** United Arab Emirates

**UBA** United Bank of Africa

**UBC** Union Bank of Cameroon

**US** United States

**XAF** Currency for Central African States

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### **ABSTRACT**

Liquidity risk is considered as one of the serious concern and challenges for the modern era banks. A bank having good asset quality, strong earnings and sufficient capital may fail if it is not maintaining adequate liquidity. Consequently, the research sought to establish the relationship between liquidity risk and financial performance of commercial banks in Cameroon with Afriland First Bank as the case under study. The study adopted correlation research design where data was retrieved from the financial statements i.e balance sheets, income statements and notes of Afriland First Bank during 2003-2013. Multiple regressions were applied to assess the impact of liquidity risk on the bank's profitability. The findings of the study were that profitability of Afriland is negatively affected due to increase in cash and leverage. The level of customer deposit was also found to positively affect the bank's profitability and it will therefore be encouraged for banks in the country to widen their coverage by opening more branches in the country. The period studied in this thesis is 2003-2013, due to availability of the data. Only profitability was considered in the study and there is need to consider other variables such as the economic condition prevailing in a given period.

**Key Words**. Liquidity risk, Performance, Leverage, Cash, Profit before tax, Non-performing loans

#### **CHAPTER ONE**

### INTRODUCTION

### 1.1 BACKGROUND OF STUDY

The strength of the banking system in every economy is an essential requirement to ensure economic stability and growth (Halling and Hayden, 2006). Banks are the main part of the financial sector in any economy, performing valuable activities on both sides of the balance sheet. On the asset side, they enhance the flow of funds by lending to the cash starved users of funds, whereas they provide liquidity to savers on the liability side (Diamond and Rajan, 2001). Banks also facilitate the payments and settlement systems and support the smooth transfer of goods and services. They ensure productive investment of capital to stimulate the economic growth and also help to develop new industries, thereby increasing employment and facilitating growth.

However, the development of international financial markets and rising variety of financial instruments has increased the possibility of banks' attainment of financial resources at an extensive level. Under such conditions, the market has rapidly developed and some opportunities are provided to design new products and present more services to the banks. Although it seems that the speed of such changes is different from one country to another, banks generally compete with each other to develop and expand the new financial instruments and services. Bank's profit is usually one of the main resources use for accumulation of asset. The safety of banking system is depending on the profitability and capital adequacy of banks. Profitability is one of such parameters which show managements' approach and competitive position of bank in market-based banking. This parameter helps the banks to tolerate some level of risk and support them against short-term problems. Recent studies indicate that liquidity risk arises from the inability of a bank to accommodate decreases in liabilities or to fund increases in assets. Liquidity is the ability of a bank to fund increases in assets and meet obligations as they fall due, without incurring unacceptable losses (Basel Committee on Banking Supervision, 2008). The inability of banks to raise liquidity can be attributed to a funding liquidity risk that is caused either by the maturity mismatch between inflows and outflows and/or the sudden and unexpected liquidity needs

arising from contingency conditions (Duttweiler, 2009). Therefore, efficient and effective liquidity management is crucial if the survival and prosperity of organizations is to be assured. However, as noted by Sardakis et al. (2007), the assessment of liquidity management practices, especially, in small firms and its influence on the firms' profitability has tended to be based solely on the standards and practices used by large companies or those adopted by professionals such as accountants, consultants, banks, etc. Liquidity management can be defined as the planning and controlling of cash flow by owner-managers in order to meet their day -to-day commitments (Collis and Jarvis, 2000).

Moreover the day-to-day management of a firm's short term assets and liabilities plays an important role in the success of the firm. Firms with glowing long term prospects and healthy bottom lines do not remain solvent without good liquidity management (Jose et al., 1996). According to Moss and Stine (1993) a useful way of assessing the liquidity of firms is with the cash conversion cycle (CCC). The Cash Conversion Cycle (CCC) measures the time lag between cash payments for purchase of inventories and collection of receivables from customers. The traditional measures of liquidity such as the current ratio and quick ratio are useful liquidity indicators of firms though they focus on static balance sheet values (Hutchison et al., 2007).

Risk is a natural element of business and community life. It is a condition that raises the chance of losses/gains and the uncertain potential events which could manipulate the success of financial institutions (Crowe, 2009). As a result, well established Risk Management Practices (RMPs) can assist banks to reduce their exposure to risks. Effective risk management is accepted as a major cornerstone of bank management by academics, practitioners and regulators and acknowledging this reality and the need for a comprehensive approach to deal with bank risk management, the Basel Committee on Banking Supervision adopted the Basel I Accords, followed by the Basel II Accords and recently by the Basel III, to deal with the matter (Sensarma and Jayadev, 2009).

Moreover, risk management is found to be one of the determinants of returns of banks' stocks. Indeed as Holland (2010) observed, risk management failure is considered one of the main causes of the crisis.

Determinants of banks' performance are divided into internal and external factors. Internal factors focus on the special characteristics of banks such as bank size, bank size square, bank's capital, credit risk, and liquidity risk, while, external factors include macroeconomic variables, i.e., gross domestic product and inflation.

Despite continued improvement in economic conditions within the CEMAC region, the banking system remains vulnerable with pronounced variations among countries. Large long currency positions protect banks against a depreciation of the currency. Eleven banks have net positions that exceed twice their regulatory capital, with the positions of Gabonese and Congolese banks being the largest and those of domestic banks and banking groups being larger than those of foreign banks. In the event of an appreciation of the currency against the euro (and to a lesser extent against the dollar), the capital adequacy ratio of banks in Cameroon can go and some other domestic banks and local groups would fall short of the regulatory minimum. Gabonese banks would be less affected due to a high capital adequacy ratio and local groups would suffer more than foreign ones.

In 2005, 7 of 11 banks were found to be in a good or solid standing. Furthermore, the liquidity ratio of the whole financial system in Cameroon was 2% in 2004 and 0.58% in 2005 (CEMAC, surveillance report, 2005).

Furthermore the amount of bad or non-performing loans was 13.1 billion in 2004 and an increase in 2005 (COBAC 2005) and an increase in the amount from 2004 to 2005 by 0.8 billion.

Bank's exposure to liquidity risks appears limited, with banks in Cameroon being the most vulnerable. A withdrawal of all demand deposits by the central governments and half of their term deposits would also have, overall, a modest effect. However, large deposits by the public sector have boosted the liquidity position of some banks which therefore are highly exposed to sudden withdrawals.

### 1.2 STATEMENT OF PROBLEM

The Cameroonian banking industry has continued to grow both in terms of new local and foreign entrants, customer and deposit base, regionalization and increased scrutiny from the regulators specifically the Bank of Central African States (BEAC). This new shift in the Cameroonian banking industry can be attributed to the liberalization of the sector, increased adoption of information technology and improved business

environment due to reforms being undertaken in the political, economic, social and cultural fields (IMF country report, 2009). With these changes, the level of competition in the banking industry has reached an all level high and coupled with an enlightened customers and increased scrutiny from the regulators, local banks have had to introduce effective risk management practices. Adoption of such practices have been found to be a source of sustainability more so in such environment characterized by stiff competition and enlightened customers (Chao et al., 2010). Competitiveness of an organization will lead to sustainability which refers to the development that meets the needs of the present generation without compromising the ability of the future generation to meet their needs (Bundtland Commission, 1987).

The varied nature of the functions performed by banks exposes them to liquidity risk – the risk that a bank may not meet its obligations (Jenkinson, 2008) as the depositors may call their funds at an inconvenient time, causing fire sale of assets, negatively affecting profitability of the bank (Chaplin et al., 2000).

It is important for a bank to understand the effect of each of the liquidity components on it's profitability and also undertake deliberate measures to optimize its liquidity level. Liquidity risk may arise due to the breakdown or delays in cash flows from the borrowers or early termination of the projects (Diamond and Rajan, 2005). Moreover, liquidity risk may also originate from the very nature of banking; macro factors that are exogenous and financing and operating policies that are endogenous (Ali, 2004). As a result of this gap, the principal concern of this research is to assess the relationship between liquidity risk and financial performance of commercial banks in Cameroon.

### 1.3 RESEARCH QUESTIONS

What is the relationship between liquidity risk and financial performance of commercial banks in Cameroon?

In line with this, the following sub research questions will contribute in getting an answer to the main research question.

- Do commercial banks in Cameroon face liquidity risk?
- Of what importance are deposits to performance?

- How important is the effect of cash on performance?
- What impact has leverage got on performance?

#### 1.4. HYPOTHESES STATING

### **Hypotheses formulation**

Hypothesis 1 ( $H_0$ ): there is no relationship between liquidity risk and financial performance.

Hypothesis 2  $(H_1)$ : there is a relationship between liquidity risk and financial performance

### 1.5 OBJECTIVES OF THE STUDY

The main objective of the study is to clearly present the relationship between liquidity risk and financial performance of the Cameroon banking sector. In line with the general objective the research project will have the following specific objectives, that is to;

- To investigate liquidity risk faced by commercial banks in Cameroon;
- Asses the importance of deposits on performance
- Asses the importance of liquidity (cash) on performance and
- Asses the impact of leverage on performance.

### 1.6 SIGNIFICANCE OF THE STUDY

- The study will serve as an academic requirement for the award of a Master in Science degree in Sustainable Development.
- ii. The understanding of the liquidity risk practices adopted by commercial banks in Cameroon as well as how it will influence their performance will help policy makers governments and other stakeholders to design targeted policies and programs that will actively stimulate the growth and sustainability of the commercial banks in the country, as well as helping those policy makers to support, encourage, and promote the establishment of appropriate policies to guide the firms. Regulatory bodies such as BEAC, COBAC, MINFI and

- CEMAC can use the study findings to improve on the framework for regulation.
- iii. The study findings will benefit management and staff of commercial banks who will gain insight into how their institutions can effectively manage their liquidity risk by coming up with appropriate practices. This study will offer an understanding on the importance of adopting appropriate liquidity practices and thus offer competitive advantage to the firms. Several practices on risk management and their effects will be discussed for the benefit of the managers. This is because commercial banks need to adapt to the changing needs of the current business set up and requirement of various customers and providers of services. As a result, commercial banks in the country and other affiliated institution will derive great benefit from the study.
- iv. This study will also create a monograph which could be replicated in other sectors of the economy.
- v. Most importantly, this research will contribute to the literature on the risk management in the commercial banks especially in developing countries like Cameroon.
- vi. It is hoped that the findings will be valuable to the academicians for professional training, learning, teaching, research, policy change, etc who may find useful research gaps that may stimulate interest in further research in future. Recommendations will be made on possible areas of future studies.

### 1.7 SCOPE OF STUDY

The scope of this research is limited to Commercial banks in Cameroon and Afriland First Bank (CCEI) Cameroon in particular. Since it is a major player in the Cameroon financial industry. The study was done in Yaounde from october to December.

### 1.8. LIMITATION OF THE STUDY

- 1. Financial constraints also possed as a major problem in limiting this research.
- 2. Time was a very pertinent issue since I was on internship with CITIBANK Douala and I had a very tight schedule with work.
- 3. There were alot of challenges in the analysis of the financial statements since it was an entirely new concept to me.

4. Also, there was some difficulties in getting financial reports for some periods.

### 1.9. ORGANISATION OF THE STUDY

This section gives a structure of every chapter within this research project. The project consists of five chapters.

Chapter one is the introduction, it presents background of the study, statement of the problem, objective of the study, significance and limitation of the study.

Chapter two presents a review of related literature.

The methodology employed, target population and sampling, data used in the research, and research hypothesis are stated in chapter three.

Chapter four consists of data analysis and interpretation, it reports the results from the data collected.

Also, the research project presents the conclusions of the results and the recommendations suggested by the researcher in chapter five.

Lastly, I shall present the constraints encountered during the research, suggestions for further research, references and appendices.

### 1.10 DEFINITION OF TERMS

### **1.10.1. Liquidity**

Cash, cash equivalents and other assets (liquid assets) that can be easily converted into cash (liquidated). In the case of a market, a stock or a commodity, the extent to which there are sufficient buyers and sellers to ensure that a few buy or sell orders would not move prices very much. Some markets are highly liquid; some are relatively illiquid. The term also means how easy it is to perform a transaction in a particular security or instrument. A liquid security, such as a share in a large listed company or a sovereign bond, is easy to price and can be bought or sold without significant price impact. With an illiquid instrument, trying to buy or sell may change the price, if it is even possible to transact.

### 1.10.2. Liquidity Risk

The risk that an individual or firm will have difficulty selling an asset without incurring a loss. That is, there may be a lack of interest in the market for a particular asset, forcing the owner to sell it for less than its actual value. Liquidity risk may be quantified as the difference between an asset's value and the price at which it can likely be sold. It is highest for lightly traded securities and small issues, as well as during a bear market.

The <u>risk</u> that arises from the difficulty of selling an asset in a timely manner. It can be thought of as the difference between the "true value" of the asset and the likely price, less commissions.( financial dictionary).

#### 1.10.3. Financial Performance

The level of performance of a business over a specified period of time, expressed in terms of overall profits and losses during that time. Evaluating the financial performance of a business allows decision-makers to judge the results of business strategies and activities in objective monetary terms.(investor words)

Any of many different mathematical measures to evaluate how well a company is using its resources to make a profit. Common examples of financial performance include operating income, earnings before interest and taxes, and net asset value. It is important to note that no one measure of financial performance should be taken on its own. Rather, a thorough assessment of a company's performance should take into account many different measures.( the free dictionary)

### 1.9. PRESENTATION OF CASE AREA: YAOUNDE

### 1.9.1. History.

Yaoundé was founded in 1888 by German traders under the name Jaunde as a base for the ivory trade and as an agricultural research station. It was later occupied by Belgian troops during World War I. After Germany's defeat, France became the colonial power in eastern Cameroon. Yaoundé consequently became the capital of French Cameroon, and continued as the capital of the Republic of Cameroon at independence.

### **1.9.2.** Economy.

Most of Yaounde's economy is centered around the administrative structure of the civil service and the diplomatic services. Due to these high profile central structures, Yaounde enjoys a relative higher standard of living and security compared to the rest of Cameroon.

#### 1.9.3. Places of interest

the Cathédrale Notre Dame des Victoires, seat of the Archdiocese of Yaoundé, the Basilique Marie-Reine-des-Apôtres, built on the site of the first missionary church in Cameroon, the Cameroon National Museum (located in the former presidential palace), the Reunification Monument, the Sport Palace (Palais des Sports).

### **1.9.4. Climate**

Yaoundé features a tropical wet and dry climate with constant temperatures throughout the year.

### 1.9.5. Transportation

Yaoundé Nsimalen International Airport is a major civilian hub, while nearby Yaoundé Airport is used by the military. Railway lines run west to the port city of Douala and north to Ngaoundéré

#### **1.9.6.** Markets

There are numerous markets in the city, ranging from small street-side markets to the large Mfoundi and Mokolo markets. There are also some supermarkets (e.g. the locally owned 'Rayco' and 'Mahima' and the French-owned Casino) situated in the city centre

#### 1.9.7.Education

Cameroon is a bilingual country, where English and French are both official languages; therefore in the city there is a coexistence of French sub-educational system schools, where the degree giving access to university is baccalaureate, and all the education is in French, and the English sub-educational system schools, where the degree giving access to university is the GCE Advanced level.

### 1.9.8. Healthcare

The largest hospital is the Central Hospital of Yaoundé (Hôpital Central de Yaoundé) with 650 beds. Yaoundé General Hospital (Hôpital Général de Yaoundé - HGY) had 302 beds when it was built in 1985. Other hospitals are the Yaoundé Gynaecology, Obstetrics and Pediatrics Hospital (Hôpital Gynéco Obstetrique et Pédiatrique de Yaoundé - HGOPY) and the University Hospital Center of Yaoundé (Centre Hospitalier Universitaire de Yaoundé - CHU).

### **3.1.9. Sports**

The national football (soccer) team plays some of its home matches in the Ahmadou Ahidjo stadium and the football clubs Canon Yaoundé, Impôts FC and Tonnerre Yaoundé are all based in the city. The Grand Prix Chantal Biya, a mean's road bicycle racing event on the UCI Africa Tour starts and finishes in Yaoundé.

### **CHAPTER TWO**

### LITERATURE REVIEW AND THEORETICAL FRAMEWORK

### 2.1. LITERATURE REVIEW

This chapter reviews literature relating to liquidity risk in the banking system and its influence on performance. The literature review has been organized in the following sections. First section covers the theoretical framework underlying the study, types of liquidity risks and finally the effect of liquidity risk on bank performance. The second section covers the management of liquidity risks after with the empirical reviews on the subject matter being covered is discussed.

#### 2.1.1. Interest Rate Risk

According to Goodhart (2008), there are two basic facets of liquidity risk: maturity transformation (the maturity of a bank's liabilities and assets) and the inherent liquidity of a bank's asset (the extent to which an asset can be sold without incurring a significant loss of value under any market condition). In fact, these two elements of a bank's liquidity are intertwined. Banks do not need to be worried about the maturity transformation if they have the assets that can be sold without bearing any loss.

Whereas, banks having assets that are going to be matured in a shorter period may have a less need to keep the liquid assets. Apart from the above-said maturity mismatch, liquidity risk arises due to recessionary economic conditions, causing less resource generation. This increases the demand of depositors creating liquidity risk. This may cause the failure of a given bank or even the entire banking system due to contagion effect (Diamond and Rajan, 2005). High liquidity increases the leverage and a highly leveraged bank may turn into the consumer of liquidity from the provider.

### 2.1.2. Credit and Solvency Risks

Credit risk indicates the failure of a bank to receive interest and/or the principal amount from loans and non-treasury securities. Credit risk also arises when a bank gives commitment or guarantees on behalf of customers (Sinkey, 2006). Furthermore, credit risk is present in all counterparty exposures like interest rate swaps. On-balance sheet strategies for managing credit risk include increasing provisions for all

anticipated loan losses. Although, higher provisions reduce the profitability of a bank but higher provisions as percentage of total assets also signal a bank's efforts towards mitigating credit risk. Thus, provisions as percentage of total assets can provide an indication of the extent of credit risk management (Kashyap et al., 2002).

Solvency risk arises out of lack of sufficient funds to pay depositors in the event of a run. Capital to assets ratio indicates the cushion available to a bank against unexpected losses and implicitly protects the interests of uninsured depositors (Allen and Gale (2004). Higher capital to assets ratio builds confidence of bank depositors but may reduce shareholder value due to reduction in ROE. Thus, maximization of ROE is often linked to a trade-off between ROA and the Equity Multiplier (EM) (reciprocal of capital to assets ratio). Banks with higher EM may increase the ROE for shareholders but higher EM indicates low capital to assets ratio and therefore higher solvency risk, which may lead to the bank closing down.

### 2.1.3. Liquidity risk and performance of banks

Liquidity problems may affect a bank's earnings and capital and in extreme circumstances may result in the collapse of an otherwise solvent bank (Central Bank of Barbados, 2008). Banks may have to borrow from the market even at an exceptionally high rate during a liquidity crisis. This ultimately 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. Thus, debt to equity ratio will rise, affecting the bank's effort to maintain an optimal capital structure.

Liquidity risk may cause a fire sale of the assets of the bank which may spill over into an impairment of bank's capital base (Diamond and Rajan, 2001; Falconer, 2001). If any of the financial institutions faces a situation in which it has to sell a large number of its illiquid assets to meet the funding requirements (perhaps to reduce the leverage in conformity with the requirement of capital adequacy), the fire sale risk may arise. This scenario may dictate to offer price discount to attract buyers. This situation will have a knock on effect on the balance sheets of other institutions as they will also be obliged to mark their assets to the fire sale price (Goddard et al., 2009).

Diamond and Rajan (2001) state that a bank may refuse the lending, even to a potential entrepreneur, if it feels that the liquidity need of the bank is quite high. This

is an opportunity loss for the bank. If a bank is unable to meet the requirements of demand deposits, there can be a bank run (Diamond and Rajan, 2005). No bank invests all of its resources in the long-term projects. Many of the funding resources are invested in the short term liquid assets. This provides a buffer against the liquidity shocks.

Diamond and Rajan (2005) emphasize that a mismatch in depositors demand and production of resources forces a bank to generate the resources at a higher cost. Liquidity has a greater impact on the tradable securities and portfolios. Broadly, it refers to the loss emerging from liquidating a given position (Zheng and Shen, 2008). It is essential for a bank to be aware of its liquidity position from a marketing perspective. It helps to expand its customer loans in case of attractive market opportunities (Falconer, 2001). A bank with liquidity problems loses a number of business opportunities. This places a bank at a competitive disadvantage, as a contrast to those of the competitors.

Liquidity management is important for several reasons, for one the current assets of a manufacturing firm account for over half of its assets (Weinraub and Visscher 1998). For a distribution company they account even more. Excessive levels of current assets can easily result in a firm realizing a sub-standard return on investment. However, the firms with too little current assets may incur shortages and difficulties in maintaining smooth operations (Gilbert and Reichert, 1995). For small companies current liabilities are the principal sources of external funding. Such firms do not have access to long term financing apart from mortgages on buildings. Fast growing and larger firms also make use of current liability financing. For these reasons, the financial managers devote considerable time working on these matters.

### 2.1.4. Managing Liquidity Risk

Liquidity risk management is an essential component of the overall risk management framework of the financial services industry, concerning all financial institutions (Majid, 2003). Ideally, a well-managed bank should have a well-defined mechanism for the identification, measurement, monitoring and mitigation of liquidity risk. A well-established system helps the banks in timely recognition of the sources of liquidity risk to avoid losses. The balance sheets of banks are growing in complexity and dependence upon the capital markets has made the liquidity risk management

more challenging (Guglielmo, 2008). Guglielmo (2008) further argues that the banks having enhanced exposure in the capital markets must have a deep understanding of the risks involved. The said banks should develop the mechanism required for proper risk measurement and management. A bank should have continuous awareness about the breakdown of its various funding sources in terms of individual strata of clientele' financial markets and instruments (Falconer, 2001).

According to Gatev and Strahan (2003), the deposits provide a natural hedge to banks against the liquidity risk. Under the stressed market conditions, the banks are perceived as a haven for investors who do not intend to issue funds against their loan commitments. The cash flows in any bank complement each other. The inflows of funds give a natural hedge to banks for outflows due to loan advancements. Therefore, banks use deposits to hedge the liquidity risk. This argument also finds support from the work of Kashyap et al. (2002) who provided a rationale of risk management to define the features of a commercial bank, commonly labeled as "financial intermediary" combining demand deposits with loan commitments.

One possible counter measure to reduce liquidity pressure is the transformation of illiquid assets into cash. In times of immense funding pressure, securitization techniques are usually employed by the banking system for liquidation of assets like mortgages (Jenkinson, 2008). A bank should respond to funding shortfall by acting on the assets side of the balance sheet if it is facing restrictions on raising liquidity. It will be forced to squeeze the advancement of loans to its customers to reduce funding requirements. Despite its features to support funding and increase liquidity, Ali (2004) has narrated two main drawbacks of the above stated policy. First, this strategy needs a bit longer period to be matured. Many of the lending decisions are taken in advance and hard to be reversed instantly, thereby not generating liquidity drainage quickly.

Second, reduced lending affects a large part of the economy. In the non availability of funds to companies and households, it becomes difficult to support long-term investment and consumption in the economy.

### 2.1.5. Liquidity Risk

Liquidity risk is the possibility that over a specific time period, the bank will become unable to settle obligations with immediacy (Drehmann and Nikolaou, 2009). It is a risk arising from a bank's inability to meet its obligations when they come due without incurring unacceptable losses. This risk can adversely affect both banks' earnings and the capital and therefore, it becomes the top priority of a bank's management to ensure the availability of sufficient funds to meet future demands of providers and borrowers, at reasonable costs. The vulnerability of banks to liquidity risk is determined by the funding risk and the market risk. Liquidity risk needs to be monitored as part of the enterprise-wide risk management process, taking into account market risk and credit risk to ensure stability in the balance sheet and dynamic management of liquidity risk. A bank should only attempt this if it makes good business sense, not use it as a means to keep afloat. Liquidity risk not only affects the performance of a bank but also its reputation (Jenkinson, 2008). A bank may lose the confidence of its depositors if funds are not timely provided to them. The bank's reputation may become at stake in this situation.

The maturity transformation of short-term deposits into long-term loans makes banks inherently vulnerable to liquidity risk (Basel Committee on Banking Supervision, 2008). The market liquidity risk refers to the inability to sell assets at or near the fair value, and in the case of a relevant sale in a small market; it can emerge as a price slump (Brunnermeier and Pedersen, 2009).

The behavior towards liquidity is affected by a firm's characteristics: a bank's liquidity position is affected by its size, status and product type. The size affects the attitude of the bank towards wholesale funding, including the access opportunity (Allen et al., 1989) and the price of the funds obtained (Nyborg et al., 2002). Bank size matters because of the economy of scope and scale; concerning liquidity, a large bank might have better access to the interbank markets because it has a larger network of regular counterparties or a wider range of collateral. The product type offered to the counterparties, on both the assets and liabilities sides, is able to affect the liquidity position; banks that take on demand deposits and offer loan commitments need to hold higher liquidity buffers that can be mitigated if an imperfect correlation holds (Kashyap et al., 2002).

### 2.1.6. Financial Performance

Organizational performance can be measured by financial aims attainment or workers satisfaction. In the same manner Ho, (2008) pointed out that performance can be evaluated by efficiency and effectiveness of aim attainment. Furthermore, Venkatraman et al, (1986) cited that performance can be assessed by financial performance namely, return on investment, growth of sales, profit, organization effectiveness, and business performance. Similarly, Delaney et al, (2006) assert that organization performance can be evaluated by quality service and products, satisfying customers, market performance, service innovations, and employee that organization performance can be appraised by the following "dimensions of performance: return of investment, margin on sales, capacity utilization, customer satisfaction and product quality". In the same way, Green et al, (2007) identified that return on investment, sales and market growth, and profit are important factors that be measured by organization performance. According to these researchers, there are many factors in this study that be measured by performance such as market shares, financial performance, efficiency and effectiveness of an organization performance, and human resource management.

There is general agreement that bank profitability is a function of internal and external factors. Koch (1995) observed that the performance differences between banks indicate differences in management philosophy as well as differences in the market served. Profitability is a function of internal factors that are principally influenced by a bank's management decisions and policy objectives such as the level of liquidity, provisioning policy, capital adequacy, expense management and bank size, and the external factors related to industrial structural factors such as ownership, market concentration and stock market development and other macroeconomic factors (Athanasoglou et al, 2006). Though most of the studies on bank profitability are based on developed countries especially the USA and Europe, a couple of studies focusing on developing countries Flamini et al (2009), Sufian and Chong (2009), and (Naceur (2003) have also used similarly the same variables to study the determinants of bank profitably.

### 2.1.7. Determinants of Financial Performance

Financial measures are considered the most used parameter of business performance measurement, especially in the current economic climate. Most growing businesses ultimately target increased profits, so it is important to know how to measure profitability. The key standard measures are:-

Liquidity measures the ability of the firm business to meet financial obligations as they become due, without disrupting the normal, ongoing operations of the business. Liquidity can be analyzed both structurally and operationally. Structural liquidity refers to the balance sheet (assets and liabilities) and operational liquidity refers to cash flow measures (Du Rietz & Henrekson, 2000). Two recommended measures of liquidity are the current ratio and working capital. The current ratio measures the relationship between total current firm assets and total current firm liabilities and is a relative measure rather than an absolute dollar measure. The higher the ratio, the more liquid the firm is considered to be. Working capital is a measure of the amount of funds available to purchase inputs and inventory items after the sale of current firm assets and payment of all current firm liabilities. Working capital is expressed in absolute dollars; therefore, determining adequate working capital is related to the size of the firm operation (Du Rietz & Henrekson, 2000).

Solvency measures the amount of borrowed capital used by the business relative to the amount of owner's equity capital invested in the business. In other words, solvency measures provide an indication of the business' ability to repay all indebtedness if all of the assets were sold. Solvency measures also provide an indication of the business' ability to withstand risks by providing information about the firm's ability to continue operating after a major financial adversity (Hammes, 2003). Unlike liquidity, solvency is concerned with long-term as well as short-term assets and liabilities. Three widely used financial ratios to measure solvency are the debt-to-asset ratio, the equity-toasset ratio and the debt-to-equity ratio. These three solvency ratios provide equivalent information, so the best choice is strictly a matter of personal preference. The debt-to-asset ratio expresses total firm liabilities as a proportion of total firm assets and the higher the ratio, the greater the risk exposure of the firm. The equity-to-asset ratio expresses the proportion of total assets financed by the owner's equity. The debtto-equity ratio reflects the capital structure of the firm and the extent to which firm

debt capital is being combined with firm equity capital. It is a measure of the degree to which a firm is leveraging its equity.

Profitability measures the extent to which a business generates a profit from the factors of production: labor, management and capital. Profitability is the most important measure of success of the business. A business that is not profitable cannot survive, yet a highly profitable one has the ability to reward its owners with a large return on their investment. Profitability analysis focuses on the relationship between revenues and expenses and on the level of profits relative to the size of investment in the business (Mesquita & Lara, (2003). Four useful measures of firm profitability are the rate of return on firm assets (ROA), the rate of return on firm equity (ROE), operating profit margin and net firm income. The ROA measures the return to all firm assets and is often used as an overall index of profitability, and the higher the value, the more profitable the firm business. The ROE measures the rate of return on the owner's equity employed in the firm business. It is useful to consider the ROE in relation to ROA to determine if the firm is making a profitable return on their borrowed money (Hadlock & James, 2002).

Net firm income comes directly off the income statement and is calculated by matching firm revenues with the expenses incurred to create those revenues, plus the gain or loss on the sale of firm capital assets. Net firm income represents the return to the owner for unpaid operator and family labor, management and owner's equity. Like working capital, net firm income is an absolute dollar amount and not a ratio, thus comparisons to other firms is difficult because of firm size differences (Deloof & Jegers, 1996).

On their part, Palepu, Healy, and Bernard (2000) asserted that "the starting point for a systematic analysis of a firm's performance is its return on equity (ROE) as well as return on assets (ROA)." Return on assets (ROA) is an important determinant of ROE because it shows how much profit a company is able to generate for each dollar of assets invested (Palepu et al., 2000). Although ROE and ROA are commonly used to assess the performance of large companies, research into SMEs performance has tended to focus on sales or profit, or growth in sales or profit (Fasci and Valdez, 1998). While there is no doubting the importance of sales and profit to a business, it is

equally important to relate these output measures to measures of inputs (namely assets or equity) when making comparisons of business performance.

Non-Financial Measures has also come out as a major factor to be considered especially in today's competitive environment where companies are competing in terms of product, quality, delivery, reliability, after-sales service and customer satisfaction. None of these services is measured by the traditional responsibility accounting system, despite the fact that they represent the major goals of world-class manufacturing companies. Many companies are using both qualitative and quantitative non-financial indicators such as; quality, lead time, number of customer complaints and warranty claims, delivery time, non-product hours, and system down time. Unlike traditional variance reports, measures such as these can be provided quickly for managers, per shift, daily or even hourly. They are easy to calculate and also easier for non-financial managers to understand (Bozec, 2005).

Although non-financial measures are increasingly important in decision-making and performance evaluation, Sharma et al (2005) cautions that companies should not simply copy measures used by others. The choice of measures must be linked to factors such as corporate strategy, value drivers, organizational objectives and the competitive environment. In addition, companies should remember that performance measurement choice is a dynamic process measures may be appropriate today, but the system needs to be continually reassessed as strategies and competitive environments evolve.

### 2.2. THEORETICAL FRAMEWORK

The major objective of a commercial bank is to create liquidity while remaining financially sound. However, there are a number of dimensions in the way banks concretely manage their liquidity risk. In plain words, there are competing liquidity management theories. Liquidity management theories encompass where it is exactly performed in the organization, how liquidity is measured and monitored, and the measures that banks can take to prevent or tackle a liquidity shortage. These competing theories include: Commercial Loan Theory, Shiftability Theory and Anticipated Income Theory.

### 2.2.1. Commercial Loan (Traditional) Theory and Liquidity

The commercial loan theory of credit became obsolete both because of its conceptual flaws and its impracticality. A critical underlying assumption of the theory held that short –term commercial loans were desirable because they would be repaid with income resulting from the commercial transaction financed by the loan. It was realized that this assumption would certainly not hold during a general financial crisis even if bank loan portfolios did conform to theoretical standards, for in most commercial transactions the purchaser of goods sold by the original borrower had to depend to a significant extent on bank credit.

Without continued general credit availability, therefore, even short-term loans backing transactions involving real goods would turn illiquid. Rigid adherence to the orthodox doctrine was, furthermore, a practical impossibility if banks were to play a role in the nation's economic development (Casu (2006)). Moreover, the practice of continually renewing short- term notes for the purpose of supporting long-term capital projects proved unacceptable. The failure or inability of banks to tailor loan arrangements to the specific conditions encountered with longer-term uses in fact contributed to the demise of the practice.

### 2.2.2. The Shiftability Theory of Liquidity

The shiftability theory of bank liquidity was propounded by H.G. Moulton who asserted that if the commercial banks maintain a substantial amount of assets that can

be shifted on to the other banks for cash without material loss in case of necessity, then there is no need to rely on maturities.

According to this view, an asset to be perfectly shiftable must be immediately transferable without capital loss when the need for liquidity arises. This is particularly applicable to short term market investments, such as treasury bills and bills of exchange which can be immediately sold whenever it is necessary to raise funds by banks. But in a general crisis when all banks are in need of liquidity, the shiftability theory requires that all banks should possess such assets which can be shifted on to the central bank which is the lender of the last resort.

This theory has certain elements of truth. Banks now accept sound assets which can be shifted on to other banks. Shares and debentures of large companies are accepted as liquid assets along with treasury bills and bills of exchange. This has encouraged term lending by banks.

A major defect in the Shiftability theory was discovered similar to the one that led to the abandonment of the commercial loan theory of credit, namely that in times of general crisis the effectiveness of secondary reserve assets as a source of liquidity vanishes for lack of a market (Casu et al, 2006). The role of the central bank as lender of last resort gained new prominence, and ultimately liquidity was perceived to rest outside the banking system. Furthermore, the soundness of the banking system came to be identified more closely with the state of health of the rest of the economy, since business conditions had a direct influence on the cash flows, and thus the repayment capabilities, of bank borrowers. The shiftability theory survived these realizations under a modified form that included the idea of ultimate liquidity in bank loans resting with shiftability to the Federal Reserve Banks. Under this institutional scheme, the liquidity concerns of banks were partially returned to the loan portfolio, where maintenance of quality assets that could meet the test of intrinsic soundness was paramount (Allen and Gale (2004).

### 2.2.3. Anticipated Income Theory of Liquidity

The doctrine of anticipated income, as formalized by Herbert V. Prochnow in 1949, embodied these ideas and equated intrinsic soundness of term loans, which were of

growing importance, with appropriate repayment schedules adapted to the anticipated income or cash flow of the borrower.

The credit demands of business were well accommodated under this system of banking policy, and the use of loan commitments was freely pursued. Changing economic conditions, however, placed extra demands on the banking system that resulted in a new approach to balance sheet management, and businesses faced new financial challenges. Under this emerging state of affairs, bank loan commitment policies would come to play a more important part in the credit process.

### 2.2.4. Liquidity Risk in Commercial Banks

In easier terms, liquidity risk can be defined as the risk of being unable to liquidate a position timely at a reasonable price (Muranaga and Ohsawa, 2002). From this definition, there are two key dimensions of liquidity risk cited namely liquidating the assets as and when required; and at a fair market value. Banks face liquidity risk if they are not liquidating their assets at a reasonable price. The price fetching remains precarious due to frazzled sales conditions, while liquidating any of the bank's assets urgently. This may result in losses and a significant reduction in earnings. Large-scale withdrawal of deposits may create a liquidity trap for banks (Kumar, 2008), but this may not be always the primary source of liquidity risk. There are various other factors creating massive liquidity problems for the banks. For example, the extensive commitment based, and long-term lending may create serious liquidity issues (Kashyap et al., 2002). Banks having large commitments are bound to honour them when they become due. Moreover, banks having a large exposure in long-term lending may face problems of liquidating the same during times of immense liquidity pressure.

According to Goodhart (2008), there are two basic facets of liquidity risk: maturity transformation (the maturity of a bank's liabilities and assets) and the inherent liquidity of a bank's asset (the extent to which an asset can be sold without incurring a significant loss of value under any market condition). As such, the two elements of a bank's liquidity are intertwined. Banks do not need to be worried about the maturity transformation if they have the assets that can be sold without bearing any loss. Whereas, banks having assets that are going to be matured in a shorter period may have a less need to keep the liquid assets. This increases the demand of depositors creating liquidity risk. This may cause the failure of a given bank or even the entire

banking system due to contagion effect (Diamond and Rajan, 2005). High liquidity increases the leverage and a highly leveraged bank may turn into the consumer of liquidity from the provider.

#### 2.2.5. Effect of Liquidity Risk on Financial Performance of Commercial Banks

Liquidity was a key factor during the 2008-09 financial crisis in which the banks funding sources dried up quickly and they found themselves short on cash to cover their obligations as they came due (Longworth 2010). There is a general sense that banks had not fully appreciated the importance of liquidity risk management and the implications of such risk for the bank itself. As result, policymakers have suggested that banks should hold more liquid assets than in the past, to help self-insure against potential liquidity or funding difficulties (BCBS 2010). Liquid assets such as cash and government securities generally have a relatively low return; therefore, holding them imposes an opportunity cost on a bank. In the absence of regulation, it is reasonable to expect that banks will hold liquid assets to the extent they help to maximize the firm's profitability. Henceforth, policymakers have the opted to require larger holdings of liquid assets. This study seems to establish whether banks' holdings of liquid assets have a significant impact on their profitability.

Profitability is improved for banks that hold some liquid assets, however, there is a point at which holding further liquid assets diminishes a banks' profitability, all else equal (Bernanke 2008). Such findings are conceptually in line with relevant literatures and are consistent with the idea that the opportunity cost of holding low-return assets eventually outweighs the benefit of any increase in the bank's liquidity. Likewise, there is a similar estimated benefit to holding more liquid assets when economic conditions deteriorate. The ultimate objective of any commercial bank is to maximize the profit. But, preserving liquidity of the commercial bank is equally an important objective too. The dilemma that is faced by the management of commercial banks is that increasing profits at the cost of liquidity can bring serious problems to the bank. Therefore, there must be a trade-off between these two objectives of the firms (Sufian and Chong, 2009). One objective should not be at cost of the other because both have their importance. If we do not care about profit, we cannot survive for a longer period. On the other hand, if we do not care about liquidity, we may face the problem of insolvency or bankruptcy. For these reasons liquidity management in commercial bank

should be given proper consideration and will ultimately affect the profitability of the bank.

## 2.3. REVIEW OF THE EMPIRICAL LITERATURE.

Liquidity risk is the possibility that over a specific time period, the bank will become unable to settle obligations with immediacy (Drehmann and Nikolaou, 2009). The vulnerability of banks to liquidity risk is determined by the funding risk and the market risk (Joint Forum, 2006). The funding liquidity risk is caused by the maturity mismatch between inflows and outflows and/or the sudden and unexpected liquidity needs due to contingency conditions. The market liquidity risk refers to the inability to sell assets at or near the fair value, and in the case of a relevant sale in a small market; it can emerge as a price slump (Brunnermeier and Pedersen, 2009). Fatemi and Fooladi (2006), after investigating the current practices of credit risk management in the largest US-based financial institutions, report that identifying counterparty default risk is the single most important purpose served by the credit risk models utilized. However, the results were based on a very low response rate, i.e. 21 responses to questionnaires sent to 100 banks. Al-Tamimi and Al-Mazrooei (2007) provide a comparative study of banks' risk management in locally incorporated banks and foreign banks in the United Arab of Emirates (UAE). The results show that the three most important types of risks facing UAE commercial banks are foreign exchange risk, followed by credit risk and operating risk. However, an earlier study by Al-Tamimi (2002) reports that the main risk facing UAE commercial banks is credit risk. For risk identification (RI), the study assert that inspection by branch managers and financial statement analysis were the main methods used; while Al-Tamimi and Al-Mazrooei (2007) report that inspection by the bank risk manager, audits or physical inspections, financial statement analysis and risk survey are the main methods used. These results indicate that banks are becoming more sophisticated in managing their risk.

Al-Tamimi (2008) studied the relationship between the readiness to implement the Basel II Accord and the resources needed to implement it in UAE banks. The results revealed that these banks are aware of the benefits, impact and challenges associated with the implementation of the Basel II Accord. However, the research did not find any positive relationship between the UAE banks' readiness to implement Basel II and

the impact of that implementation. Nor was the relationship between readiness and anticipated cost of implementation confirmed.

In the case of Islamic banks, Hassan (2009) reports that, like the conventional banks, they are also subject to a variety of risks due to the unique range of product s offered. He also shows that there was a remarkable understanding of risk and risk management among the staff working in the Islamic banks of Brunei Darussalam, which proved their ability to manage risk successfully. The major risks that were faced by these banks were foreign exchange risk, credit risk and operating risk. A regression model was used to develop the results, which showed that RI, and RAA were the most influential variables, and the Islamic banks in Brunei needed to give more attention to those variables to make their RMPs more effective.

Van Greuning and Iqbal (2008) and Iqbal and Mirakhor (2011) argue that a comprehensive framework of risk management is equally applicable to a conventional or Islamic bank. The findings of Hassan (2009) lend further support to this argument. Khan and Bhatti (2008) observed that Islamic banks face another crucial challenge to improving their risk management strategies and corporate governance because of their adherence to Islamic Sharia'a (law). This should have an impact on the risk management of Islamic banks in terms of certain applications, emphasis and inclusion or exclusion.

The behavior towards liquidity is affected by a firm's characteristics: a bank's liquidity position is affected by its size, status and product type. The size affects the attitude of the bank towards wholesale funding, including the access opportunity (Allen et al., 1989) and the price of the funds obtained (Nyborg et al., 2002). Bank size matters because of the economy of scope and scale; concerning liquidity, a large bank might have better access to the interbank markets because it has a larger network of regular counterparties or a wider range of collateral (Fecht et al., 2008). The product type offered to the counterparties, on both h the assets and liabilities sides, is able to affect the liquidity position; banks that take on demand deposits and offer loan commitments need to hold higher liquidity buffers that can be mitigated if an imperfect correlation holds (Kashyap et al., 2002).

Majluf (1984) argue that because of information asymmetry-induced financing constraints, firms should stock up on liquid assets to finance future investment

opportunities with internal funds. Since there are no offsetting costs to liquid assets in their model, the optimal amount of liquidity is a corner solution. In contrast, Jensen (1986) argues that firms should be forced to pay out funds in excess of the amount necessary to finance all positive NPV investments to minimize the agency cost of free cash flow. In the absence of a benefit from liquid assets, Jensen's analysis implies that the firm should carry no liquid assets.

According to Almeida (2001) cash holdings are valuable because they increase the likelihood that the firm will be able to fund new investments. However, increasing cash may be costly to a firm if it decreases the quantity of current investments that the firm can make. Cash yields a lower return than that associated with the firm's physical investments whenever the firm foregoes positive NPV projects in order to hold cash. In contrast to a firm facing constraints in accessing capital markets, an unconstrained firm has no use for cash and faces no cost of holding cash. Further, Almeida et al (2002) looked at agency problems associated with over investment by managers. Previous studies have argued that to the extent that ownership is not perfectly set, managers with lower ownership could be more prone to value destroying over investment. Accordingly, increases in ownership might lead to sub optimal managerial behavior, which translates to a decreased propensity to save cash flows.

A study by Kieschnick, et al., (2008) using data on a panel of U.S. corporations from 1990 through 2004, established the importance of working capital management to firm value. Their study used stock's excess return to represent the firm value and findings show that on average an additional dollar invested in net operating working capital reduces firm value and this indicates that their study is consistent with industry surveys suggesting that some firms over-invest in net operating working capital.

# 2.4. ECONOMY OF CAMEROON

#### 2.4.1. Overview

The economy of Cameroon should continue to progress in 2012, when it is expected to show growth of 4.4% compared to 4.1% in 2011.

At sector level, the outlook for 2012-13 indicates that the primary sector will show 5% growth, thanks to average growth of 5% in the food-crop sub-sector and 5.7% in the

cash-crop sub-sector. The secondary sector is expected to grow 1.4% over the same period, driven by the construction industry, better energy supply and higher production in the food-processing and manufacturing industries. The tertiary sector should progress 3.7%, thanks notably to buoyant conditions in transport and telecommunications.

Higher growth in 2012 risks generating a 2.7% increase in inflation, but it will still be below the 3% limit set by the Central African Economic and Monetary Community (CEMAC). The public finance budgetary balance should improve from - 1.3% in 2011 to 0.2% in 2012 on the back of increased oil revenue. The current-account balance should also improve slightly to show a deficit of 5.4% in 2012 after 6.3% in 2011 as a result of a reduction in the trade deficit from 3.7% in 2011 to 1.4% in 2012.

A sustained slowdown in economic activity in the euro area could lead to lower external demand in the medium term, since the European Union is Cameroon's main trading partner. In this context, the country's main task will be to continue increasing agricultural production, developing infrastructure and consolidating the energy supply needed to sustain growth. The government will also need to continue to implement structural reforms aimed at improving economic competitiveness and the business climate.

A certain number of programmes have been set up to promote the socio-economic integration of young people but the government needs to ensure that these programmes are carried out coherently in relation to the national employment policy. Moreover, employment strategy needs to be based on partnerships between universities and companies to facilitate the arrival of young people on the jobs market.

According to National Institute of Statistics data, growth increased from 3.2% in 2010 to 4.1% in 2011. The structure of production shows strong potential in agriculture, forestry and mining. The sectoral breakdown as a percentage of gross domestic product (GDP) remains constant from one year to another and is dominated by the services sector, which represented 46.4% of GDP in 2011, compared to 43.2% in 2010. The secondary sector represented 26.4% in 2011, down from 27.7% in 2010.

The primary sector's contribution, meanwhile, rose from 21.7% to 22.9%, thanks mainly to food-crop farming and forestry. The agricultural sector contributed 3.1% to

primary-sector growth. The application of stabilization mechanisms allowed producer revenues to remain stable. Similarly, livestock farming and fishing progressed strongly from 2010 to 2011. Their contribution to growth rose from 3.0% to 16.3%, thanks to the distribution of inputs and material to livestock-farming groups.

The secondary sector contributed 26.4% to GDP in 2011, most of it generated by the construction, food processing and, to a lesser extent, the water and electricity sectors.

Manufacturing production increased 4.3% in 2011, as food processing output rose 5.3% and that of other manufacturing industries rose 3.3%. The start-up of the power stations provided for by the emergency power programme at the end of 2011 should result in an increase in electricity production, which will boost the added value of the agro-industrial and manufacturing sectors.

Construction accounted for 3.4% of GDP in 2011, thanks partly to the government's efforts to improve roads and control construction standards on public buildings.

Among the extractive industries, oil production remains the main activity despite a fall in output of 12.6%. As for mines and prospecting, the government attributed 100 small-scale prospecting permits and Mobilong diamond mining permits to Cameroon and Korea Mining. There are also plans to mine cobalt at Nkamouna and iron at Mbalam.

The tertiary sector accounted for 46.4% of GDP in 2011, up from 43.2% in 2010, following a recovery in activity in retail trading, transport and telecommunications. In transport, the start of activity at CAMAIR-Co resulted in a 1.2% increase in airpassenger volumes and a 5.7% increase in freight traffic in the first half of 2011. Telecommunications, too, showed growth, as the number of subscribers increased by 7.5% to 8.9 million in 2010 and by a further 5.5% in the first half of 2011, while turnover rose 9%. Tourism saw a 9.6% increase in the number of overnight stays in 2011, according to Ministry of Finance (MINFI) figures.

Overall, the Growth and Employment Strategy should push economic growth up to 4.4% in 2012 and 4.6% in 2013. These projections are justified by the pursuit of measures begun in 2010 to modernize production capacity and develop infrastructure.

Sectoral prospects in 2012 and 2013 suggest that the primary sector will show 5% growth thanks to average 5% growth in food production and 5.7% growth in the cash crops. The secondary sector should show 1.4% growth over the same period, boosted by construction activity, improved energy supply and production from the food-processing and manufacturing industries. The tertiary sector should progress 3.7%, thanks notably to buoyant conditions in transport and telecommunications.

Continued efforts to revitalize the agricultural sector, develop infrastructures and strengthen energy supply should consolidate Cameroon's growth despite economic turbulence in the euro area. At the same time, sustained economic turbulence in the euro area could affect external demand in the medium term and limit growth.

#### 2.4.2. Macroeconomic Policy

## 2.4.2.1. Fiscal Policy

The overriding objective of the 2012 budget is to improve the living conditions of the population by consolidating growth and protecting against external shocks through implementation of a counter-cyclical fiscal policy.(african economic outlook)

With regard to revenue, the state has given priority to enlarging the tax base by modernizing the fiscal administration and improving revenue collection, while providing incentives, notably to help companies in the informal sector to gradually emerge from it.

In 2011, fiscal pressure increased in a political context marked by the organization of the presidential election. Fiscal policy resulted in an increase in overall spending of about 8%, as capital spending increased nearly 14% and current spending rose about 6%. Current spending continued to represent about three quarters of total spending but the share of capital spending financed from the state's own resources increased slightly in 2011. The rise in public spending was partly counterbalanced by an increase in revenue, notably in the form of oil revenue boosted by high international prices.

The improvement in fiscal-revenue collection procedures through enlargement of the tax base and the revitalization of the Douala Stock Exchange should continue in 2012, so as to stimulate internal resource generation. Regarding external resources, the government will strengthen traditional bilateral and multilateral partnerships through

the use of traditional financing like funding available under the Heavily Indebted Poor Countries (HIPC) Initiative, while, at the same time, pursuing its strategy of diversifying its sources of financing via emerging countries such as China, India, Brazil and South Korea.(african economic outlook)

#### 2.4.2.2. Monetary Policy

Monetary policy is defined and administered by the Bank of Central African States (BEAC), which aims to stabilize internal and external prices. To attain this objective, the BEAC has three instruments: the intervention rate, the open-market policy which enables it to intervene on the monetary market and control refinancing levels, and the compulsory reserves policy. Since the 2008 crisis, the BEAC has eased refinancing conditions for credit institutions but the effect on economic activity has remained limited because of excess liquidity in the banking system.

It should be noted that the inflation rate increased from 1.3% in 2010 to 2.5% in 2011 in line with the general CEMAC trend. This increase is principally the result of a higher level of economic activity. The government pursued its efforts, moreover, to facilitate imports by reducing customs duties on several food products with the aim of ensuring that markets were adequately supplied and by subsidizing the pump prices of oil products so as to contain the inflation level.

The BEAC has pursued a counter-cyclical monetary policy aimed at stimulating economic activity after it was checked by the financial crisis. This resulted in a reduction in the level of state reserves, which were estimated to stand at 5.5 months of imports of goods and services in 2011, compared to 7.1 months in 2010. The recovery that began in 2010 enabled external assets to be rebuilt, increasing 4.3% in 2010 before falling 10% in 2011. Lending to the economy progressed about 17%, with short-term credit making up most loans of the monetary system to the economy. Money supply (M2) progressed by an estimated 9.8% in 2011, but this was lower than in 2010.

Activity on the money market remained timid with only one interbank transaction in 2011. Investments by eligible credit establishments and public-sector financial institutions in the BEAC fell to 192 billion CFA francs BEAC (XAF) in June 2011 from XAF 346 billion in June 2010 with outstanding credits consolidated by the state

totaling XAF 231 million on a year-on-year basis. The rate of coverage of the monetary base stabilized below the sub-regional level at around 95%.

#### 2.4.2.3. Economic Cooperation, Regional Integration & Trade

Cameroon belongs to the Economic and Monetary Community of Central Africa (CEMAC) and the Economic Community of Central African States (ECCAS), which are due to merge to open the way for the creation of a single African currency among the eight Regional Economic Communities recognized by the African Union. A pilot committee was set up on 5 July 2010 with the aim of facilitating the rationalization process leading to harmonization of the institutional framework and projects of the ECCAS and CEMAC.

Cameroon is also strengthening its co- operation with the new emerging countries, while not abandoning its traditional partners. In the first half of 2011, the government signed 18 agreements and financing conventions representing a total XAF 675 billion with bilateral and multilateral fund providers.

There is little diversification of foreign trade in terms of products or trading partners. The European Union is the country's leading partner, with a 41% share of trade by value, followed by East Asia with 18.3%, the CEMAC zone with 8%, North America with 4.7%, West Africa with 3.4% and Latin America with 2.6%. For the last five years at least, Cameroon's trade deficit has been widening as imports have increased, especially food products, oil and gas, fuels and lubricants, inorganic chemical products and fertilizers. The trade deficit could be reduced slightly to 1.4% of GDP, compared with 3.7% in 2011, in 2012 as a result of higher oil revenue. This would reduce the current-account deficit from 6.3% of GDP in 2011 to 5.4% in 2012.

#### **2.4.2.4. Debt Policy**

Cameroon enjoyed a substantial reduction of its debt in 2006 after reaching the completion point of the HIPC Initiative. The public debt to GDP ratio stood at 14% in 2011, significantly less than the 52% level registered in 2005. The stock of public debt increased in 2011 to reach XAF 1.72 trillion, comprising XAF 1.18 trillion of external debt and XAF 0.54 trillion of internal debt.

Repayment of external debt amounted to XAF 45.4 billion, representing an execution rate of 56.8% in relation to the XAF 80 billion target set by the budget. The repayment total comprised XAF 14.9 billion in interest and XAF 30.5 billion in principal. Repayment of domestic debt totaled XAF 114.7 billion to give an execution rate of 39.4% on the XAF 290.8 billion amount budgeted. This total was made up of XAF 25.7 billion in principal, XAF 44.3 billion in VAT credits and XAF 43.6 billion in domestic arrears payments. Cameroon expects to issue a new XAF 200 billion bond to finance structuring projects announced in the Growth and Employment Strategy Document announced by the President of the Republic. Cameroon's debt ratio remains low at about 14%, well below the community reference level of 70%.

#### 2.5. FINANCE AND BANKING

Cameroon's financial system is the largest in the CEMAC (Economic Community of Central African States) region. Access to financial services is limited, particularly for SMEs. Aside from a traditional tendency for banks to prefer dealing with large, established companies, determining factors are also found in interest rates for loans to SMEs being capped at 15 percent and being heavily taxed. As of 2006, bank loans to SMEs hardly reached 15 percent of total outstanding loans.

Less than 5 percent of Cameroonians have access to a bank account. While the microfinance sector is consequently becoming increasingly important, its development is hampered by a loose regulatory and supervisory framework for microfinance institutions (MFIs). The banking sector is highly concentrated and dominated by foreign commercial banks. 6 out of the 11 largest commercial banks are foreign-owned, and the three largest banks hold more than 50 percent of total financial system assets. While foreign banks generally display good solvency ratios, small domestic banks are in a much weaker position. Their capitalization is well below the average of banks in the CEMAC region and their profits are close to 2 percent, compared to 20 percent for foreign banks in the country. This is partially explained by the high levels of non-performing loans, which reached 12 percent in 2007, leading to most banks holding large amounts of excess reserves as a percentage of deposits and large levels of unutilized liquidity.

#### 2.6. CASE STUDY

#### 2.6.1. History and Creation

Afriland First Bank saw the light of day in Cameroon in 1987 under the name of Caisse Commune d'Epargne et d'Investissement. The economic environment at the time was characterized by an unfavorable economic situation and the generalized bankruptcy of banks. Four observations led to the creation of the First bank, notably: 60% of the business activity in Cameroon is not accounted for in the calculation of the GDP, since it emanates from the informal sector; yet this activity creates wealth; a majority of people living in rural areas are excluded from the banking system; investors are not sufficiently prepared to meet production requirements; the financial system is mostly dominated by tontines and loan sharks. From these observations, emerged the firm convictions that: The development of Africa is incumbent on Africans; Economic development should be supported through the promotion of entrepreneurship and through investment; thus leads to the belief that some forms of savings exist in communities despite poverty; and lastly, There is need to promote the growth of enterprises. These convictions led to the identification of four objectives, namely:

- i. Promoting the emergence of a new breed of african entrepreneurs;
- Creating business gateways between the formal and informal sectors of the economy;
- iii. Enhancing access of the rural world to the banking system;
- iv. Supporting the development of existing companies.

Hence the birth of the First Bank and the designing, by its promoters, of specific banking products, adapted to the African context. The first counter, opened in the current Retraite branch (Yaoundé), went operational on 1st July 1988. The bank today has seventeen branches distributed in nine regions of Cameroon and subsidiaries/offices abroad: the democratic Republic of Congo, the popular Republic of Congo, Sao Tome and Principe, Equatorial Guinea, Angola, France and China.

**2.6.2. Products** 

Like all other institutions, Afriland first bank has a variety of products which she offers

to her clients, notable amongst which we have; bank accounts, payment solutions,

debit cards, banc insurance, placements, usual credit facilities, microfinance, money

transfer and venture capital funds and leasing.

Source: www.afrilandfirstbank.com/nos-produits

2.6.3. Vision

Today, Afriland First Bank or First Bank represents:

the determination of Africans to fight against poverty and own their

destiny;

ii. the revalorisation of African cultures in order to make them the base of an

awareness and development policy;

the provision of financing alternatives for African private initiatives; iii.

iv. the recognition of SMEs/SMIs as pillars of economic recovery;

the demonstration of confidence in Africa's youth and African education, a v.

synonym of projecting into the future;

vitality through thought, action and innovation in a fast changing world; vi.

the provision of top quality services. vii.

Source:www.afrilandfirstbank.com/vision

**2.6.4.** Network

This bank has grown over the years since from its creation in 1986 in Yaounde and

today it is based in several countries of the African continent, in France(created on the

9th November 1995) and in China(created on the 24th July 2001), the First Bank has

both retail and corporate clients with a stronger relation with individual entrepreneurs.

Afriland First Bank is present worldwide thanks to its well established and proven

network of correspondents. For your transactions with the exterior, you can have

confidence with "The First". Our network of correspondents covers the five continents.

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First Bank is present in nine regions (Far north, North, Adamawa, Centre, Littoral, West, North West, East and South) of Cameroon and in more than five countries of Africa and of the world: the democratic Republic of Congo (Brazzaville), Liberia (Monrovia), South Sudan, Zambia (Maputo),Sao Tome and Principe (São Tomé), Equatorial Guinea (Malabo), Angola (luanda), France (Paris) and China (Beijing) as of october 2013(Afriland first bank wikipedia)

# 2.6.5. Correspondents Network.

Afriland First Bank is present worldwide thanks to its network of competent and renowned foreign correspondents. For your international transactions, have confidence in First Bank.

#### Table 1

**Table 2.1. Correspondents Network** 

Correspondents	Currency	Country	SWIFT
National Bank of Canada- Montréal	CAD	Canada	BNDCCAMM
ING BANK Paris	CHF	France	INGBFRPP
NATEXIS BANQUE Paris	EUR	France	CCBPFRPPPAR
ING BANK (France) Paris	EUR/GBP	France	INGBFRPP
DZ BANK Frankfurt	EUR	Germany	GENODEFF
ING BANK Amsterdam	EUR/USD	Holland	INGBNL2A
Compagnie de Banques Internationales de Paris	EUR	France	
FORTIS BANK (Paris)	EUR	France	
China Construction Bank	EUR	China	PCBCCNBJBJX
Unicredit	EUR	Italy	UNCRITMM
CITIBANK N.A LONDON	GBP	England	CITIGBLCB2
CITIBANK N.A NEW YORK	USD	USA	CITIUS33
ING BANK(France) Paris	EUR	France	INGBFRPP
OMNIFINANCE	XOF	Cote d'Ivoire	OMFNCIAB
Bank of China	EUR	China	1 2014

Source:www.afrilandfirstbank.com/le parternaire sur/correspondents network, 2014.

These network of banks facilitates transactions with Afriland banks across the globe.

#### 2.6.6. African Subsidiaries.

CCEI BANK GE is Afriland First Bank Group's subsidiary in Equatorial Guinea.

Created in 1994, well before the oil boom and at a time when few major groups could afford to take the risk of investing substantially in Equatorial Guinea, CCEI BANK GE is the leading local bank today.

# CCEI BANK GE, leading the local banking market through a unique network

Over time, CCEI BANK GE has woven a strategic web across Equatorial Guinea.

Always listening to customers and striving to be ever closer to them, CCEI BANK GE has a network of 4 branches.

CCEI BANK GE, leading the local banking market through remarkable performances.

## **CCEI BANK GE yields huge profits.**

It achieves outstanding net results.

It has the best overall outstanding loans.

CCEI BANK GE, leading the local banking market through win-win partnerships.

Thanks to the solid reputation of its management and its proven seriousness and rigour, CCEI BANK GE has established strong professional ties with more than fifty or so banking correspondents in all the five continents.

Confident in its expertise and growth, CCEI BANK GE relies on an international outreach: Sao-Tomé & Principe, China, Democratic Republic of Congo, France and Cameroon.

Souce:www.afrilandfirstbank.com

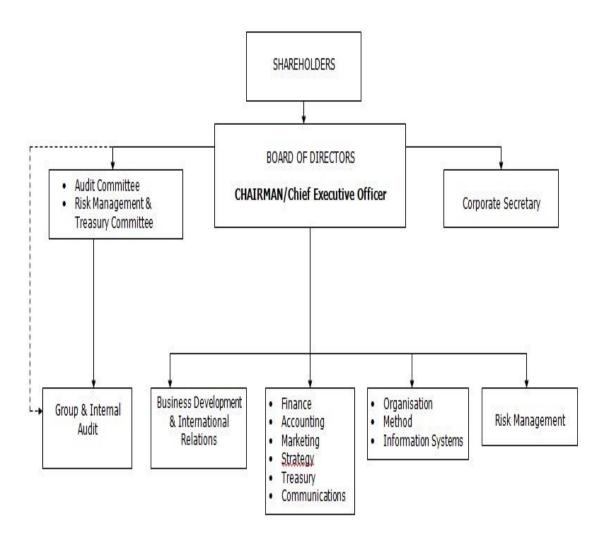
#### 2.6.7. ATM Networks

For the best convenience, the Automated Teller Machines, operational 24 hours a day and 7 days a week are available in most of our branches. These gives access to the following services. Cash withdrawals, Transfers from one account to another, Transfers from one card to another, Printing mini bank statements, Transfers from one

account to the other, Consult your account balance, Print mini bank statements, Apply for a checkbook.

#### 2.7. ADMINISTRATIVE ORGANISATION

Figure 1. Organigram for Afriland First Bank.



Source.www.afrilandfirstbank.com/organigramme

This chart shows the administrative set up of the Afriland Bank, it gives the various departments that exist in the bank as well as the hierarchical structure with the shareholders being at the top and the chairman of the board is also the director general of the bank. The organisational chart however shows the channel of decision making of which the shareholders have the most power or influence in determining the fate of the bank.

# 2.8. SUMMARY OF LITERATURE REVIEW AND THE IDENTIFIED GAPS.

The bank risk management practices has been discussed in detail both in the literature as well as from the empirical studies done on the subject area. It was evident that bank risk management practice is vital for an organization's strategic management and it is used by a firm's strategic management in order to make positive contribution to the goals, objectives and the portfolio of almost all its activities. Banks must integrate market, credit and operational risk into a single stream of capital measurement to have a comprehensive picture of their entire capital resources and this step is considered an imperative component of enterprise risk management system. This step will help banks to establish its overall risk profile, determine how much risk it is taking and the level of diversification it can achieve by entering in different business areas.

A banks liquidity risk not only affects the performance of a bank but also its reputation and a bank may lose the confidence of its depositors if funds are not timely provided to them. Further it emerged that poor liquidity position may cause penalties from the regulator and it therefore became imperative that a bank to keep a sound liquidity arrangement. Liquidity risk has become a serious concern and challenge for the modern era banks characterized by high competition for consumer deposits and capital markets with technological advancements and as a result, banks should be equipped to deal with the changing monetary policy that shapes the overall liquidity trends and the banks' own transactional requirements and repayment of short term borrowing. Though several studies have been carried out as far as the risk management practices of commercial banks is concerned especially in the developed countries, there has been few studies looking at the liquidity risk and its effect on the performance of the firms. The research in the past have focused on liquidity risk emanating from the liability side of a bank's balance sheet and less attention has been given to the risks arising from the asset side. Liquidity risk may arise due to the breakdown or delays in cash flows from the borrowers or early termination of the projects or may even originate from the very nature of banking; macro factors that are exogenous and financing and operating policies that are endogenous. A severe liquidity crisis may cause massive drowning in form of bankruptcies and bank failure leading to a drastic financial crisis. this study fills in the gap by looking at liquidity from the deficiency of the asset side of the bank balance sheet as well as other macro factors.

# **CHAPTER THREE**

# METHODOLOGY OF THE STUDY

#### 3.0. RESEARCH DESIGN

This study employs correlation research design to address its research question and to meet its general objectives too. For that data is collected from one commercial bank of the country which is Afriland First Bank (CCEI). According to Albright et al (2011) a correlation research is a procedure in which subjects' score on two variables are simply measured, without manipulation of any variable, to determine whether there is a relationship.

#### 3.1. MODEL SPECIFICATION

it presents the relation the relationship between liquidity risk and performance of commercial banks in a model form which shows how they relate. The model specifically took the form;

PBT =  $\beta$ o +  $\beta$ 1Dep +  $\beta$ 2Cash +  $\beta$ 4NPL +  $\beta$ 5LEV + $\acute{\epsilon}$ 

Where;

PBT - Profit before tax

βo - Constant value

Dep - Level of customer deposit

Cash – Cash and balance with the central bank

NPL - Non-performing loans.

LEV - Leverage Ratio

έ-Random error term

#### 3.2. JUSTIFICATION AND MEASUREMENT OF VARIABLES.

- Customer Deposit: to be collected from the liability side of the statement of financial position without any classification of current or other types of deposit accounts. It gives the amount of customer deposits at the bank.
- Cash: Cash balance that will be taken from the assets side of balance sheets of the bank. This will include "cash and balance with the central bank" only. It will give the amount of cash which is left idle to meet clients' demands for liquidity and which does not is not creating value.
- **NPL:** The provisioning for NPLs is taken from the "profit and loss statement" of the bank for the analysis in this study. It represents the amount of money which will be used for hedging.
- **Leverage Ratio:** This was obtained by dividing Total liabilities by Shareholders' Equity. This variable was added to the regression model to act as a control variable to the firms' characteristic.

The F-test was used to determine the significance of the regression while the coefficient of determination (R<sup>2</sup>), was used to determine how much variation in PBT is explained by the independent variables. This was done at 95% confidence level and correlation analysis was carried out to find the direction of the relationship between PBT and the independent variables. The Statistical Package for Social Sciences (SPSS) will be used to analyze the data.

3.3. HYPOTHESES

i. Hypotheses formulation

Hypothesis 1 (H<sub>0</sub>): there is no relationship between liquidity risk and financial

performance.

Hypothesis 2 (H<sub>1</sub>): there is a relationship between liquidity risk and financial

performance

This general hypothesis can be subdivided as such:

H<sub>0</sub>: Customer deposits have no effect on bank performance

H<sub>1</sub>: Customer deposits have an effect on bank performance

H<sub>0</sub>: cash has no effect on bank performance

H<sub>2</sub>: cash has an effect on bank performance

H<sub>0</sub>: non-performing loans has no effect on bank performance

H<sub>3</sub>: non-performing loans has an effect on bank performance

3.7.4. Data Collection

The research utilized mainly secondary sources of data by taking 11 year (2003-2013)

annual reports specifically the balance sheet and profit and loss (P&L) accounts of the

bank. In addition, data from different documents, manuals, articles, journals,

magazines, books, previous research and various internet sites will be used for the proper accomplishment of this study. Information from these sources will be limited to

the scope of my study and used for more specificity where need be.

3.7.5. Data Analysis

Multiple regression analysis was applied to the data to examine the effect of the

various aspects of liquidity risk on the performance of the commercial banks in

Cameroon. The regression model ran from the financial reports of 2003 to 2013. The

statement of financial position as well as the statement of financial performance and

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their notes was studied to get the data for the variables mentioned in the model. The regression equation is as follows:

Profitability = f (Deposits, Cash, Non-performing Loans, Leverage  $\alpha$ )

#### **CHAPTER FOUR**

# DATA ANALYSIS, RESULTS AND DISCUSSION

# 4.0. INTRODUCTION

This chapter presents the results and findings of the study based on the research objectives. The results are presented in the form of summary tables. Regression and Correlation analysis are used to analyze the data to answer the research objective.

#### 4.1. DESCRIPTIVE STATISTICS

Table 4.1 below summarizes the descriptive statistics of the variables included in the regression models as presented. It represents the variables of Afriland First Bank whose financial results were available for the years 2003-2013.

# **Table 2Table 4.1 – Descriptive statistics**

#### **Descriptive Statistics**

	N	Mean	Std. Deviation	Skewness	Kurtosis Statistic	
	Statistic	Statistic	Statistic	Statistic		
CASH	11	100614602.82	59344994.214	1.044	.888	
CUSTOMER DEPOSITS	11	326488548.18	148098870.046	.209	-1.325	
LEVERAGE	11	14.93	1.429	.710	-1.096	
NON PERFORMING LOANS	11	5610898.36	3425189.131	.651	.303	
PROFIT BEFORE TAX	11	4066256.36	2043765.838	.055	-1.382	
Valid N (list wise)	11					

Source: Calculations Based on Annual Reports from 2003-2013

Notes: Cash - Cash balance; Dep - Customer deposit; Lev - Leverage Ratio; NPL

Non Performing loans; Lev – Leverage Ratio; PBT – Profit before Tax

The mean value of customer deposit is significantly positive, showing that Afriland First Bank has a wide customer base, followed by mean of cash. This means that as

much as the bank enjoys a good customer base, it at the same time benefits from a high level of cash. The customer deposit mean (M=326488548.18) is significantly high though it has a high standard deviation (SD=148098870.046). The high standard deviation shows that the level of customer deposit varies significantly from one customer to another.

#### 4.2. CORRELATION

#### 4.2.1 Correlation Coefficient

Table 4.2 below shows the Pearson correlation coefficient generated from the data. If efficient liquidity management increases profitability, one should expect a positive relationship between the measures of liquidity management and profitability variable. The correlation matrix (as shown in Table 4.2) depicts that profitability is positively correlated with cash, deposits and non-performing loans whereas negatively correlated with leverage. The correlation matrix is negating the existence of multicolinearity among the independent variables as all the correlations are below 0.90.

**Table 3**Table 4.2- Correlations

#### Correlations

		CASH	CUSTOMER DEPOSITS	LEVERAGE	NON PERFORMI NG LOANS	PROFIT BEFORE TAX
CASH	Pearson Correlation	1	.051	857**	.022	.003
	Sig. (2-tailed)		.882	.001	.949	.993
	N	11	11	11	11	11
CUSTOMER DEPOSITS	Pearson Correlation	.051	1	030	.933**	.154
	Sig. (2-tailed)	.882		.931	.000	.652
	N	11	11	11	11	11
LEVERAGE	Pearson Correlation	857**	030	1	090	160
	Sig. (2-tailed)	.001	.931		.794	.639
	N	11	11	11	11	11
NON PERFORMING	Pearson Correlation	.022	.933**	090	1	.123
LOANS	Sig. (2-tailed)	.949	.000	.794		.719
	N	11	11	11	11	11
PROFIT BEFORE TAX	Pearson Correlation	.003	.154	160	.123	1
	Sig. (2-tailed)	.993	.652	.639	.719	
	N	11	11	11	11	11

<sup>\*\*</sup> Correlation is significant at the 0.01 level (2-tailed).

Source: Calculations Based on Annual Reports from 2003-2013

A positive relationship exists between the bank's level of cash and profitability level realized by the bank. It is expected that with a bank having high customer deposit base, it will be able to invest the funds prudently and be able to generate adequate return. Since the bank lends to borrowers, it is expected that the lending level of such firms will be high which in turn generates high interest income to the bank. Interestingly, the correlation of profits with the NPL is positive (r=0.123) and this negates the expectation since with a high level of non-performing loans, it will be expected that that the banks liquidity level will be low and therefore negatively affecting the profitability of the banks. However, it can be deduced from the finding that the provision for non-performing loans might be to meet the regulatory requirement for a particular year and not necessarily loss of the bank's loan disbursement. The provision will end up being paid after adopting, maybe, stringent collection policy, which in turn increases the bank's profitability. At the same time the bank's leverage has a negative correlation with the level of profitability. This results will be expected since when the difference between the maturity of assets and liabilities is reduced, it is expected that a matching process is achieved which means that the bank will be able to meet its obligations when due and this will increase the bank's profitability. The leverage position of the bank has a negative correlation (r=-0.160) which means that a high leverage will mean that the bank will be using most of its revenue to service the interest obligation which in turn reduces the bank's liquidity level as well as profitability.

#### 4.3. MULTIPLE REGRESSION

Table 4.3 shows the results of multiple regressions. The value of  $R^2$  is 0.133, revealing 13.3% variability in profitability accounted for by the liquidity variables in the model developed. The adjusted  $R^2$  is an improved estimation of  $R^2$  in the population. The value of adjusted  $R^2$  is 0.205. This adjusted measure provides a revised estimate, i.e. 20.5% of the variability in profitability of the bank is due to the fitted model.

**Table 4Table 4.3: Model Summary for PBT with Control Variables** 

# Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson	
1	.365 <sup>a</sup>	.133	.205	2456669.946	1.012	

a. Predictors: (Constant), NON PERFORMING LOANS, CASH, LEVERAGE, CUSTOMER DEPOSITS

Source: Calculations Based on Annual Reports from 2003-2013

# 4.2.1. Multiple Regression Model

The estimates of the regression coefficients, t-statistics, standard errors of the estimates and p-values are shown in 4.4 below. The coefficient column gives estimated regression coefficients. It can be estimated that there would be a 3.7% positive change in the profitability of Afriland First Bank as a result of a unit change in deposits. The t-statistic for this coefficient is 1.041, i.e. significant. It can be deduced that as the bank's deposits increase, it will cause a growth in its profitability.

Table 5Table 4.4 – Coefficients

Coefficients<sup>a</sup>

		Unstandardiz	ed Coefficients	Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	17202135.813	16525979.141		1.041	.338
	CASH	216	.028	626	769	.471
	CUSTOMER DEPOSITS	.037	.017	.193	.160	.878
	LEVERAGE	-1052718.690	1228039.412	736	857	.424
	NON PERFORMING LOANS	.228	.735	.383	.311	.767

a. Dependent Variable: PROFIT BEFORE TAX

Source: Calculations Based on Annual Reports from 2003-2013

b. Dependent Variable: PROFIT BEFORE TAX

The profitability of the banks is decreased by 21.6% with a unit increase in cash and vice versa. There is a negative relationship between cash and the profitability of Afriland First Bank. The t-value of this coefficient is -0.769 and is insignificant at p= 0.05. These results therefore will be consistent with Holmstrom and Tirole (2000).

From Table 4.4 above, the established multiple linear regression equation becomes:

#### PBT = 17202135.813 - 0.022CASH + 0.003DEP + 0.228NPL - 1052718.690LEV

The results of this study reveal a significant impact of all the factors of liquidity risk on the performance of Afriland First Bank. An increase in deposits will help the banks to increase their profitability.

Table 4.4 contains the beta coefficients of the four independent variables. The beta coefficients are indicators of the predictive powers of the individual variables. The beta coefficients for customer deposit and non-performing loans are positive implying a positive relationship between the dependent variable (PBT) and the independent variables (DEP and NPL) whereas the beta coefficients of cash and leverage ratio is negative implying an inverse relationship with the dependent variable (PBT). Thus a unit change in customer deposit and non-performing loan results to a positive change in performance as well to the extent of 16% and 31.1% respectively and a unit change in cash and leverage ratio results to an inverse change in performance to the extent of 62.6% and 73.6% respectively.

Observation of t-test for customer deposit and non-performing loans show that they have a positive relationship with the dependent variable (PBT) whereas cash and leverage have a negative relationship with the dependent variable (PBT). However, the results are not statistically significant indicating the absence of a relationship with the dependent variable.

## 4.3. VERIFICATION OF HYPOTHESES

From the results obtained, it is evident that there is no direct relationship between the dependent variable (PBT) and the independent variables (DEP,CASH, NPL and LEV) since they are not statistically significant, thus i will not accept the null hypothesis  $(H_O)$ . Rather, i will say that there is no sufficient evidence to affirm that liquidity risk

management indicators have no impact on the financial performance of Afriland First Bank.

It could be that liquidity risk management is not much of a concern, but definitely there are other indicators that can affect bank financial performance. These other factors can probably have a high significant contribution thus need for further research so as to improve performance.

# **CHAPTER FIVE**

# SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

#### 5.0. INTRODUCTION

This chapter presents a summary of the key findings of the study as well as the conclusions, limitations of the study, and recommendations for further research.

#### 5.1. SUMMARY OF FINDINGS.

The secondary data in this analysis covered a period of 11 years from 2003 to 2013. The population of study was Afriland first Bank.

The findings of the study were that profitability of Afriland First Bank is negatively affected due to increase in cash and leverage. From this finding, it can be concluded that the harmful effects of liquidity to commercial banks can be avoided by maintaining sufficient cash reserves.

However, the finding show a contradiction from other studies to the effect that high provisioning of NPLs increases the profitability of the banks. This finding is interesting and it could be influenced by the economic condition of the country during a particular period that makes the bank to declare a high provisioning of bad debts but which afterwards is recovered to increase the level of bad debts. The large amount of provisioning of loans as NPLs negatively affects the profitability of banks. Thus, banks should periodically monitor their long-term debtors. NPLs show the presence of credit risk, which can rapidly turn into a severe liquidity crisis.

The level of customer deposit was also found to positively affect the bank's profitability as a result of probably the wide banking coverage over the national territory that Afriland First bank has got. Since Afriland First Bank has established a wide branch network, they are able to benefit from economies of scale and therefore leading to an improved profitability for the bank. Thus the findings show that efficient management of liquidity in a bank will influence its level of profitability and the negative relationship with majority of the variables used in general, the profitability of a firm with the company adopting a conservative liquidity management.

#### 5.2. CONCLUSION

According to the uncertainty of conditions, the financial industries are facing a large number of risks. For this reason, the financial industries emphasize on risk management. Moreover, effective risk management is so important that it can increase project success.

Liquidity problems if unchecked may adversely affect a given bank's profitability, capital and under extreme circumstances, it may cause the collapse of an otherwise solvent bank. In addition, a bank having liquidity problems may experience difficulties in meeting the demands of depositors, however, this liquidity risk may be mitigated by maintaining sufficient cash reserves, raising deposit base, decreasing the NPLs.

It is imperative for the bank's management to be aware of its liquidity position in different product segment. This will help them in enhancing their investment portfolio and providing a competitive edge in the market. It is the utmost priority of a bank's management to pay the required attention to the liquidity problems. These problems should be promptly addressed, and immediate remedial measures should be taken to avoid the consequences of illiquidity.

This study paves the way for more detailed studies into controlling the liquidity risk and to extending the proposed model to incorporate other causes of liquidity risk. Further, the current study has focused primarily on profitability of the bank as measure of the performance of bank. Further research may take a broader view of the performance and can also include economic factors.

#### 5.3. RECOMMENDATIONS

#### To the Banks

- 1. It is important therefore that banks establish the required cash in each product segment and maintain the optimal level which will help in reducing the cash balance level so as to eliminate the adverse effects of liquidity risk since there is an inherent negative relationship between cash and profitability (H<sub>2</sub>).
- 2. Following the acceptance of H<sub>3</sub>, its should be noted that large amounts of provisioning of loans as NPLs negatively affects profitability indicating the

- presence of credit risk which can rapidly turn into severe liquidity risk as such there should be periodic montoring of longterm debtors.
- 3. The study suggests some policy implications for the managers and prospective investors. It is emerging that Afriland First Bank's level of profitability is influenced by the level of customer deposit and as well as cash level.

#### **To the Government**

1. Most government institutions have large deposits in banks, thus since there is a relationship between deposits and performance as verified by H<sub>1</sub>, large deposits should be properly hedged or matched, so that operational liquidity will not be greatly affected if these deposits were withdrawn.

#### 6.0. RESEARCH FOR FURTHER STUDIES

Taking into consideration that this research is the first of its kind in the area of The Effect of Liquidity Risk Management Strategy and Financial Performance of Commercial Banks, I strongly think that others should carry out a similar research probably with another bank.

This will however help to know to if liquidity risk is actually a call for concern and if yes, to what extend does affect financial performance.

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# **APPENDICES**

# SAMPLE FINANCIAL STATEMENTS

(Balance Sheet and Profit and Loss-P&L Account) for the Financial Year 2008