

ANALYSIS OF ASSET-LIABILITY MANAGEMENT PRACTICES IN FINANCIAL INSTITUTIONS IN UGANDA. A CASE OF TROPICAL BANK UGANDA

BY
FALOUQ KIZITO
REG NO:
2017/HD06/2683U

SUPERVISOR DR. GEOFFREY NUWAGABA

A RESEARCH REPORT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION OF MAKERERE UNIVERSITY

MARCH, 2021

DECLARATION

I, Kizito Falouq, declare that this is my original report and has never been submitted anywhere in any Institution of higher learning for academic purposes.

Kizito Falouq

Signature Date 21/04/2021

APPROVAL

This report has been submitted as a partial requirement for the award of a Masters Degree of Business Administration of Makerere University with my approval as the University Supervisor

Dr. Geoffrey Nuwagaba

Supervisor

DEDICATION

This project is dedicated to my family, The Sekalo Family, whose example, encouragement and support gave me the drive to carry on. Their prayers, understanding and patience along the journey helped me accomplish my dream.

ACKNOWLEDGEMENT

I give God the glory for giving me the strength and energy to successfully accomplish my dream.

This research report would not have been completed without the commitment and patient guidance of my supervisor, Dr. Geoffrey Nuwagaba. I am grateful for his focused and analytical review throughout the process.

Special thanks go to my friends and classmates who encouraged and helped me in the difficult times. May God reward them abundantly.

I acknowledge with gratitude the contribution of my respondents and all staff of Tropical Bank Limited. Their willingness to provide the necessary information when I visited their offices was priceless. May the Almighty Lord bless them abundantly.

I also thank my family members: Shafique, Hakim, Latifah, Muhammed, Yahya, Farid, Hindu, Othman, and Sarah for the encouragement and support. I am so grateful to all of you.

TABLE OF CONTENTS

DECLARATION	i
APPROVAL	ii
DEDICATION	iii
ACKNOWLEDGEMENT	iv
TABLE OF CONTENTS	v
LIST OF TABLES	viii
ABBREVIATIONS	ix
ABSTRACT	X
CHAPTER ONE	1
1.0 Introduction	1
1.1 Background to the study	1
1.2 Problem Statement	4
1.3 Purpose of the study	4
1.3.1Research objectives:	4
1.3.2 Research questions	5
1.4Scope of the study	5
1.4.1 Subject scope	5
1.4.2 Geographical scope	5
1.4.3 Time scope	5
1.5 Significance of the study	5
1.6 Operational definitions	6
CHAPTER TWO	8
LITERATURE REVIEW	8
2.0 Introduction	8
2.1 Asset-liability management (ALM)	8
2.2 Asset-liability management practices	9
2.3 Challenges when implementing ALM practices	11
2.4 Recommendations to confront the challenges	13
2.5 Conclusion	15
CHAPTER THREE	16

METHODOLOGY	16
3.0 Introduction	16
3.1 Research designs	16
3.2 Study population	16
3.3 Sample size.	17
3.4 Sampling techniques and procedures	17
3.5 Data Collection	18
3.5.1 Data sources	18
3.5.1.1 Primary data	18
3.5.1.2 Secondary data	18
3.5.3 Data Collection procedures and Instruments	18
3.5.3.1 Interview	19
3.5.3.2 Questionnaires	19
3.6 Data processing, analysis and presentation	20
3.7 Validity	20
3.8 Reliability	21
3.9.0 Ethical Considerations	21
3.10 Conclusion	22
CHAPTER FOUR	23
DATA PRESENTATION AND ANNALYSIS OF FINDINGS	23
4.0 Introduction	23
4.1. Back ground characteristics of respondents	23
4.1.1 Gender for staff	23
4.1.2 Age category of staff	24
4.1.3 Marital status of staff	25
4.1.4 Level of education for tropical bank staff	25
4.1.5 Period you have banked with tropical bank	26
4.2 Asset-liability management practices adopted by Tropical bank	26
4.2.1 Liquidity management plans	26
4.2.2Core or stable deposit base	28
4.2.3 Minimum net profit margin	30

4.3 Strategies for improving Asset-Liability management practices at Tropical Bank	32
CHAPTER FIVE	35
DISCUSSION OF FINDINGS, CONCLUSION AND RECOMMENDATION	35
5.0 Introduction	35
5.1 Discussion of findings	35
5.1.1 Asset-Liability Management (ALM) practices adopted by Tropical bank	35
5.1.1.1 Liquidity management practices	35
5.1.1.2 Core or stable deposit base	36
5.1.1.3 Minimum net profit margin	37
5.1.2 The effectiveness of the ALM practices adopted by tropical bank	38
5.1.3 Strategies for improving on the ALM practices adopted by Tropical bank	38
5.2 Conclusion	39
5.3 Recommendations	39
5.4 Limitations of the Study	40
5.6 Areas for further research.	40
References	41
Appendix I	44
Questionnaire	44
Appendix II	48

LIST OF TABLES

Table 2: Showing the demographics of respondents	24
Table 3: Showing the Age categories of respondents	24
Table 4: Marital status of staff	25
Table 5: Highest level of education for respondents	25
Table 6: For how long have you been banking with Tropical bank	26
Table 7: Showing the descriptive statistics of liquidity management plans at Tropical bank	27
Table 8: Showing the Descriptive Statistics of core or stable deposits base	29
Table 9: Showing Descriptive Statistics of Credibility as Service Quality standard	31
Table 11: Showing the Descriptive Statistics on the Strategies for improving on the Asset-	
Liability management practices adopted by Tropical bank	33

ABBREVIATIONS

SD = Standard deviation

N- Number

MIN =Minimum

MAX= Maximum

LTD- Limited

ALM-Asset-Liability management

ABSTRACT

Asset-Liability Management (ALM) is a means of making a financial institution profitable. Organizations use various ALM practices from time to time to grab greater market share, which in turn leads to profit which is the whole sole aim of companies. The banking business in Uganda operates in a lot of competition and thus adopting the best ALM practices would help them to remain competitive. The study specifically sought to analyse ALM practices in Ugandan commercial banks with a case study of Tropical Bank Ltd.

The study adopted a descriptive research design. The sample size constituted 40 staff from 4 branches of Kampala road, Kawempe, Katwe, and Nakivubo. The research used stratified and purposive sampling methods. Stratified sampling technique was used to select the five branches. Staff were selected using Purposive method. Data was collected using structured questionnaires which employed a five-point Likert scale in rating various responses. Data was analysed using statistical package for the social sciences, (SPSS). The descriptive analysis was done to show the mean, frequency distribution and percentage results.

Findings revealed that three ALM practices of liquidity management, core or stable deposit base and minimum net profit margins are implemented by Tropical bank. However net profit margin practices were found more effective followed by core or stable deposit base while liquidity practices came least. From the study findings, the appropriate strategies for improving on the ALM practices used by tropical bank include Board of Directors and Senior Management getting involved in ALM implementation, introducing an effective information management system, putting in place a formal policy to guide ALM, introducing a sound liquidity management plan, getting adapting ALM. and management committed changes in to to new

CHAPTER ONE

1.0 Introduction

Banks and other financial institutions provide services which expose them to various kinds of risks like credit risk, interest risk and liquidity risk. Proper Asset- Liability Management controls the risks inherent in the business due to mismatches between assets and liabilities (Tee, 2017). Asset-Liability Management is an approach that provides institutions with protection that makes such risk acceptable (Dash, 2016). This study will therefore analyse the Asset-Liability Management practices adopted by Tropical bank. This chapter will focus on the background to the study, statement of the problem, purpose of the study, objectives of the study, research questions, and scope of the study, and significance of the study.

1.1 Background to the study

Asset-Liability Management is a practice used by financial institutions to mitigate financial risks resulting from a mismatch of assets and liabilities. ALM strategies employ a combination of risk management and financial planning and are often used by organizations to manage long-term risks that can arise due to changing circumstances (CFI, 2020). Asset Liability Management in practical terms amounts to management of total balance sheet items, its size and quality (Shikher, 2020). Shikher (2020) adds that it involves conscious decisions with regard to asset liability structure in order to maximize interest earnings within the frame work of perceived risk with quantification of risk.

Asset-Liability Management (ALM) encompasses the process of managing Net Interest Margin (NIM), within the overall risk. It calls for an integrated approach to decision making with regard

to type (demand/time maturities) and size (portfolios) of financial assets and liabilities and their mix and volumes (turnover). The success of ALM hinges on matching of assets and liabilities in terms of Rate and maturity to optimize the yield and maintain/improve the NIM (Banton, 2020).

In general, ALM are efforts by the bank's Board and senior management team to carefully balance the bank's current and long term potential earnings with the need to maintain adequate liquidity and appropriate interest rate risk exposure. Each bank has a distinct strategy, customer base, product selection, funding distribution, asset mix, and risk profile. These differences require that assessment of risk exposure and risk management practices be customized to each bank's specific risks and not take a one size fits all approach (Gray, 2020). At its core, Asset and Liability Management is a way for financial institutions to address risks resulting from a mismatch of assets and liabilities. Most often, the mismatches are a result of changes to the financial landscape, such as changing interest rates or liquidity requirements (CFI, 2020). Implementing better ALM practices can provide benefits to organizations as it is important for organizations to fully understand their assets and liabilities. One of the benefits of implementing ALM is that an institution can manage its liabilities strategically to better itself for future uncertainties (Davis, 2018). According to Davis (2018), the best practices for ALM include; Effective liquidity management plans, be able to identify their core or stable deposit base, be able to identify the Minimum Net Margin. Failure to properly manage assets and liabilities accounts for a bigger percentage as to why financial institutions are making losses (FMS, 2020).

Tropical bank was established in 1973 as the Arab Libyan Bank for Foreign Trade & Development. In 1994 Arab Libyan Bank for Foreign Trade and Development changed to Tropical Africa Bank Limited. In 2006 Tropical Africa Bank Limited was re-branded as Tropical

Bank Limited. The bank is owned by the Libyan government with 99.7 percent of the share capital through the Libyan Foreign Bank. The remaining percentage of 0.3 is owned by the Ugandan government through the Ministry of Finance and Economic Development. By January 2019, Tropical Bank had a network of 15 branches in central, eastern and western parts of Uganda. The bank's plan is to open as many branches in neighbouring countries in as far as central and East Africa. The bank offers both retail as well as corporate products; personal banking, business banking, forex, ATM services, online banking, loans and overdrafts, banking and finance (Sheba & Mukasa, 2011).

According to the bank's financial statements for the year ended 31st December 2018, Tropical Bank losses increased by 4.9% to Shs5.78bn in 2018, up from Shs5.52bn recorded in 2017. In 2016, the financial institution made a loss of Shs13.4bn despite of the registered profits of 4.3bn and 1.91bn for 2014 and 2015 respectively. A critical look at Tropical bank's results for the last five years indicates that the financial institution still has a long way to go in as far as recording profits sustainably is concerned (Senyoyi,2019). Tropical bank losses are also accounted on poor Asset-liability Management (Lubwama, 2018). According to Lubwama (2018), Tropical bank has tried to grow the assets and liabilities through the sale of the bank's products and services so as to achieve business growth in line with the bank's retail business objectives but no evidence as to whether Tropical bank has fully adopted the Asset-Liability practices of getting the Board Involved, Educating the Board, Selecting the Right Model, Evaluating vendors carefully, Document, Test, and Validating, thus the need to analyze the Asset-Liability Management practices adopted by Tropical bank.

1.2 Problem Statement

Tropical bank has made losses for the past five years despite all the efforts by the bank to improve its performance (Senyonyi, 2019). Findings from audited financial statements of 2014 and 2015 indicate that tropical bank had been making profits. For instance, in 2014 the bank made a profit of 4.3bn, which reduced to Shs.1.91bn in 2015 (Senyonyi, 2019). But the problem started in 2016 when the financial institution made a loss of Shs13.4bn, whereas in 2017, the Bank's losses were 5.52bn. Tropical Bank losses however increased by 4.9% to Shs5.78bn in 2018, up from Shs5.52bn recorded in 2017. A critical look at Tropical bank's results for the last five years indicates that the financial institution still has a long way to go in as far as recording profits sustainably is concerned (Senyonyi, 2019). According to Davis (2018), poor Asset-Liability Management practices account for a bigger percentage of the losses made by financial institutions. The continuous losses at Tropical bank are an indication of an Asset-Liability Management (ALM) problem. It is upon this background that the study seeks to analyze the ALM practices adopted by Tropical bank to determine their impact on the Bank's profitability.

1.3 Purpose of the study

The purpose of the study was to analyze Asset-Liability Management practices at Tropical bank Ltd

1.3.1Research objectives:

The specific research objectives were;

- i. To identify Asset-Liability Management practices adopted by Tropical Bank Ltd.
- ii. To evaluate the effectiveness of the Asset-Liability Management practices adopted by Tropical bank
- iii. To identify strategies for improving on the Asset-Liability Management practices adopted by Tropical bank

1.3.2 Research questions

- i. What are the Asset-Liability Management practices adopted by Tropical Bank Ltd?
- ii. How effective are the Asset-Liability Management practices adopted by Tropical bank?
- iii. What strategies should Tropical bank adopt to improve on its Asset-Liability

 Management practices?

1.4 Scope of the study

1.4.1 Subject scope

The study focused on analyzing the effectiveness of Asset-Liability Management practices adopted by Tropical Bank. This is because Asset-Liability Management practices are a driving force for the growth of any financial institution and thus they must be effective to achieve growth.

1.4.2 Geographical scope

The research was done within central Uganda, Kampala, Tropical bank Head offices. The Head Office was selected simply because it is responsible for the overall Asset-Liability management of the bank.

1.4.3 Time scope

The study analysed the Asset-Liability Management practices implemented and their effectiveness for a period between 2013 and 2020. This is because the bank has made losses in this period and thus there was a need to evaluate its ALM.

1.5 Significance of the study

The study will be useful to Tropical bank top management (CEO and managers in different departments) as it identifies the weaknesses in its Asset-Liability Management practices adopted and suggests solutions for the weakness and also provides the best practical and effective ways

of implementing Asset-Liability Management practices that help the bank to improve, hence growth.

This study will provide a basis for making policies in different banks regarding implementation of Asset-Liability Management practices. This is because the study provided recommendations on the best Asset-Liability Management practices and the best way to implement them. These recommendations will thus guide policy formulation and implementation of Asset-Liability Management practices.

The study will provide future literature for those researching about Asset-Liability Management practices in different institutions. This is because the study provided a wider understanding of Asset-Liability Management practices and any future study by any researcher will find this information important in their study.

1.6 Operational definitions

Asset

An asset is a resource with economic value that an individual, corporation, or country owns or controls with the expectation that it will provide a future benefit (Barone, 2021).

Liability

A liability is something a person or company owes, usually a sum of money. Liabilities are settled over time through the transfer of economic benefits including money, goods, or services (Hayes, 2020).

Management

Management (or managing) is the administration of an organization, whether it is a business, a not-for-profit organization, or government body. Management includes the activities of setting

the strategy of an organization and coordinating the efforts of its employees (or volunteers) to accomplish its objectives through the application of available resources, such as financial, natural, technological, and human resources. The term "management" may also refer to those people who manage an organization (Tee, 2017).

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter gives a review of some of the related studies that have been conducted by other researchers on Asset-Liability Management (ALM). The study will cover ALM practices adopted by Tropical Bank, the challenges faced by Tropical Bank while implementing the ALM practices adopted, and the strategies for improving ALM practices adopted by the Bank.

2.1 Asset-Liability Management (ALM)

Asset-Liability Management is the process of managing the use of assets and cash flows to reduce the firm's risk of loss from not paying a liability on time (Banton, 2020). Well-managed assets and liabilities increase business profits. The Asset-Liability Management process is typically applied to bank loan portfolios and pension plans. It also involves the Economic Value of Equity (Banton, 2020). ALM strategies employ a combination of risk management and financial planning and are often used by organizations to manage long-term risks that can arise due to changing circumstances (CFI, 2020). The concept of Asset-Liability Management focuses on the timing of cash flows because company managers must plan for the payment of liabilities. The process must ensure that assets are available to pay debts as they come due and that assets or earnings can be converted into cash. The Asset-Liability Management process applies to different categories of assets on the balance sheet. The practice of asset and liability management can include many factors, including strategic allocation of assets, risk mitigation, and adjustment of regulatory and capital frameworks. By successfully matching assets against liabilities, financial institutions are left with a surplus that can be actively managed to maximize their investment returns and increase profitability (CFI,2020).

2.2 Asset-Liability Management practices

Asset-Liability Management (ALM) is a mechanism designed to address the risk faced by banks due to a mismatch between assets and liabilities, which arises either because of liquidity or because of changes in interest rates. As such, Asset-Liability Management techniques involve **ALM finance** and **ALM banking**. Banks use Asset-Liability Management techniques as part of an overall Asset-Liability Management system (Teeboom, 2019).

Effective liquidity management plans. Liquidity is the ability of a bank to fund increases in assets and meet obligations as they come due, without incurring unacceptable losses (Bassel, 2019). This means that banks must know how much liquidity they have and how they would fund depositors' demands at any time. According to Basel, the principals of effective liquidity management are;

Each bank should have an agreed strategy for the day-to-day management of liquidity. This strategy should be communicated throughout the organization.

A bank's Board of Directors should approve the strategy and significant policies related to the management of liquidity. The board should also ensure that senior management takes the steps necessary to monitor and control liquidity risk. The board should be informed regularly of the liquidity situation of the bank and immediately if there are any material changes in the bank's current or prospective liquidity position.

Each bank should have a management structure in place to execute effectively the liquidity strategy. This structure should include the ongoing involvement of members of senior management. Senior management must ensure that liquidity is effectively managed, and that appropriate policies and procedures are established to control and limit liquidity risk. Banks

should set and regularly review limits on the size of their liquidity positions over particular time horizons.

A bank must have adequate information systems for measuring, monitoring, controlling and reporting liquidity risk. Reports should be provided on a timely basis to the bank's Board of Directors, senior management and other appropriate personnel.

Be able to identify their core or stable deposit base. Core deposits refer to deposits that form a stable source of funds for lending banks. Such deposits may be varied in nature, and can encompass small-denomination time deposits, payment accounts, as well as checking accounts. Core deposits are made in a bank's natural demographic market and offer numerous advantages to financial institutions, including predictable costs, and reliable gauges of customer loyalty. Core deposits are used in conjunction with brokered deposits to boost capital (Kagan, 2020) and these are matched against longer-term assets to reduce interest rate risk. Such deposits include equity, certificates of deposit with penalties for early withdrawal, retirement savings, savings with a stated purpose, and regular savings accounts with small balances (Kagan, 2020). Banks can increase their core deposits with local marketing campaigns and customer incentive programs. Furthermore, existing deposit customers can become strong sources for cross-selling opportunities. The act of building core deposits is similar to same-store sales growth, in that both revenue increases are organic in nature. Consequently, core deposits are viewed as an essential component to retail banks, which may otherwise struggle to remain afloat without them (Banton, 2020). Kagan, (2020) identified the methods of stimulating core deposits. These include: Enhancing convenience by offering increased access to ATM networks, Constructing additional bank branches, Bolstering online services, Increasing customer service via telephone, Offering

tailored services, Competitively pricing products and services, including credit cards and wire transfers, Generally offering best-in-class banking experiences.

Be able to identify the Minimum Net Margin. Profit margin is one of the commonly used profitability ratios to gauge the degree to which a company or a business activity makes money. It represents what percentage of sales has turned into profits. Simply put, the percentage figure indicates how many cents of profit the business has generated for each dollar of sale. For instance, if a business reports that it achieved a 35% profit margin during the last quarter, it means that it had a net income of \$0.35 for each dollar of sales generated (Segal, 2020). To grow your business, you need to track financial information and measure performance. One metric you should be keeping an eye on is your business' profit margin (Kappel, 2020).

2.3 Challenges when implementing ALM practices

ALM is not easy. The risks faced by the banks are multi-dimensional and interconnected. Also, the balance sheet of a bank is typically quite multifaceted and full of complex details linked to risks (Mors, 2020). The following are typical challenges that banks face from an Asset-Liability Management point of view. These challenges can cause significant profitability effects for a bank.

Change in Customer behaviour

Customer behavior is constantly changing. Banks are exposed to these changes, through the possibility offered to their customers to pre-pay their loans or withdraw savings without prior notice. Customers using these possibilities may cause unpleasant surprises for the bank, as the interest rate and liquidity risk may change unexpectedly. It is important to stay at the forefront of possible changes in customer behavior. It is also important for banks to be able to measure the effect from changed customer behavior on interest rate and liquidity risk. Being on the front foot

of customer behavior enables banks to react quickly and to protect their Net Interest Income (NII).

Managing risks within internal and regulatory constraints

Requirements faced by ALM in banks are continuously changing and are in most cases increasingly challenging. Both the internal risk policies and limits, as well as the regulatory requirements, are important and must be fulfilled.

Balancing between changes in value and changes in Net Interest Income (NII)

Balancing between changes in values of the Assets and Liabilities and changes in Net Interest Income is a further complicated challenge for a bank. The potential changes in value are expressed as Economic Value of Equity (EVE), and the potential changes in NII are expressed as Earnings at Risk (EaR). The challenge is that improving EVE might mean a contradictory effect for EaR, and vice versa.

Mismatch between Strategy and Structure

Although an organization's structure may be appropriate for past strategies, it may require significant change to be suited to new and different business strategies (Kessler & Kelly, 2010). When an organization changes its strategy, the existing organizational structure may become ineffective (Wendy, 2009). Symptoms of an ineffective organizational structure include too many levels of management, too many meetings attended by too many people, too much attention being directed toward solving interdepartmental conflicts, too large a span of control; and too many unachieved objectives (David, 2014). Changes in structure should not be expected to make a bad Strategy good, or to make bad managers good, or to make bad products sell (Chandler, 2015).

Connecting Strategy Formulation to Implementation

Taylor (2016) finds need for top managers to recognize that they cannot plan everything and that strategies are bound to be translated into action within an organization. Johnson and Scholes (2012) point out the assumption that top management can plan strategy implementation at the top then cascade down through the organization is not tenable. It should be recognized that how top managers conceive strategies is not the same as how those lower down in the organization conceive them. Therefore, there needs to be ways of relating the strategic direction to the everyday realities of people in the organization. It's therefore vital that middle managers are engaged with and committed to such strategies so that they can perform this translation process (Kazmi, 2012).

2.4 Recommendations to confront the challenges

Commitment of Top Management in Implementation

The most important thing when implementing a strategy is the top-level management's commitment to the strategic direction itself. This is undoubtedly a prerequisite for strategy implementation. Therefore, top managers must demonstrate their willingness to give energy and loyalty to the implementation process. This demonstrable commitment becomes, at the same time, a positive signal for all the affected organizational members (Raps and Kauffman, 2015). To successfully improve the overall probability that the strategy is implemented as intended, senior executives must abandon the notion that lower-level managers have the same perceptions of the strategy and its implementation, of its underlying rationale, and its urgency and instead, they must believe the exact opposite. They must not spare any effort to persuade the employees of their ideas (Raps and Kauffman, 2015). Overall though, it is increasingly acknowledged that the traditionally recognized problems of inappropriate organizational structure and lack of top

management backing are the main inhibiting factors to effective strategy implementation (Aaltonen and Ikåvalko, 2012).

An effective management information system (MIS)

An effective MIS is crucial for improving ALM strategies. The essential characteristics of an effective management information system are; MIS is management oriented, MIS is developed under the direction of management, MIS is an integrated system, common data flow, MIS is based upon future needs of the business, MIS is composed of sub-systems, MIS requires flexibility, distributed data processing, and MIS is mostly computerized (Chand, 2019). He adds that to be effective in ALM these must be incorporated within the MIS.

Formal, written liquidity and ALM banking and ALM finance policies

As in all operational areas, ALM must be guided by a formal policy that was developed and written by the officials with the assistance of operational management. The policy should be reviewed by officials annually and revised as needed. The ALM and liquidity policies may be two separate policies or one comprehensive policy. In any case, the ALM and liquidity policies cannot be written in isolation, as decisions on lending, investments, liabilities, and equity are all interrelated (Biety, 2017). ALM banking and ALM finance require coordinated management of a bank's entire balance sheet (Teeboom, 2019). Teeboom (2019) adds that this requires properly set policies to have everything work as designed.

Tools in place to monitor liquidity

In order to successfully monitor the ALM position of a savings institution: Managers must have effective liquidity management plans in place. Managers must be able to identify the core or stable deposit base in the institution and match that against longer-term assets to reduce the

Interest Rate Risk. Stable deposits include: equity, certificates of deposit with penalties for early withdrawal, retirement savings, savings with a stated purpose, and regular savings accounts with small balances. Within each savings account type, managers must determine the amount or percentage of funds that can be used to fund longer-term loans (Biety, 2017).

A commitment to change both deposit and loan interest rates as demanded by the local market. Commitment to change (C2C), an essential component of a successful change implementation, is best described as a state of mind that ties a person to a particular course of action. C2C is influenced by organizational commitment, and can be thought of as being comprised of three components: Affective commitment (AC2C) feelings of attachment to the organization, and desire to support change initiatives, Normative commitment (NC2C) sense of obligation to be supportive of the organization's plans for change, Continuance commitment (CC2C) fear of costs of leaving or resisting organizational changes (Melcher, 2020).

2.5 Conclusion

All over the world, the large multinational corporations (banks) to medium and even small banks recognize ALM as a serious management practice that needs immediate attention because of its effects relating to company growth, and survival in this competing environment. Different researchers have conducted studies about ALM and many have recommended that for an organization to be effective and satisfy customer needs, attract more customers, it has to instil confidence in them, and one way of instilling this confidence is proper ALM thus the need for ALM practices at Tropical Bank and strategies to improve them.

The next chapter will look at how the research will be conducted that is to say the methodology.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter dealt with how research was carried out. The procedures that were followed to collect data, the population under study, the sample size that was considered and the reasons for its selection, the research instrument that was used to collect data, the method of data collection, as well as the techniques that were used to analyse the data. This chapter also includes the limitation of the research study that were faced in carrying out the research.

3.1 Research designs

Research design is a set of methods and procedures used in collecting and analysing measures of variables in a research problem (John, 2014). The study adopted a descriptive research design approach. Descriptive research is defined as a research method that describes the characteristics of the population or phenomenon studied. The study primarily focused on describing the nature of a demographic segment, without focusing on why a certain phenomenon occurs. This design was used to understand how Tropical Bank can improve its ALM practices basing on the findings from questionnaires. The study adopted both quantitative and qualitative research approach. Quantitative research focuses on gathering numerical data and generalizing it across groups of people to explain a particular phenomenon. The study used numerical data collected using questionnaires on ALM. Qualitative opinions were collected using an interview guide.

3.2 Study population

Population is a collection of organisms of same group or species which live in a particular geographical area (Daniel, 2007). The study populations included 40 staff that is to say; 12 from Kampala road, 10 from Nakivubo, 10 from Katwe and 8 from Kawempe Tropical bank branches.

The 4 branches were selected because they have more clients compared to any other branches across the country.

3.3 Sample size.

Sample size is the number of individual samples measured or observations used in a survey or experiment (Kirkwood, 2010). The total sample size was 40 respondents from a total population of 40 which was determined according to Morgan's table of sample size. The sample size was derived using the Krejcie and Morgan, (1970) table of determining sample size.

Table 3.1: Sample size of respondents

Bank branch	Population	Sample	
Kampala	12	12	
Nakivubo	10	10	
Katwe	10	10	
Kawempe	8	8	
Total	40	40	

Source; Primary data

The clients sample elements will be distributed to the four bank branches as shown in the table above

3.4 Sampling techniques and procedures

A sampling technique is a method used when choosing a subgroup from a population to participate in a study (Lucas & Samuel, 2012). The research used purposive technique. Purposive sampling is a non-probability sample that is selected based on characteristics of a population and the object of the study (John, 2017). Purposive sampling was used to obtain data from staff since they have more knowledge about the study.

3.5 Data Collection

Data collection is the process of gathering and measuring information on targeted variables in an established system, which then enables one to answer relevant questions and evaluate outcomes (Weimer, 2019). The researcher used primary data which was gathered from Tropical Bank branches of Kampala road, Nakivubo, Katwe and Kawempe.

3.5.1 Data sources

A data source, in the context of computer science and computer applications, is the location where data that is being used comes from. In a database management system, the primary data source is the database, which can be located in a disk or a remote server (Ken, 2009). The study used both primary and secondary data sources.

3.5.1.1 Primary data

Primary data is data that is collected by a researcher from first-hand sources (Ken, 2009). Primary data was collected from Tropical Bank staff.

3.5.1.2 Secondary data

Secondary data is the data that has already been collected through primary sources and made readily available for researchers to use for their own research. It is a type of data that has already been collected in the past. Secondary data was gathered through a comprehensive literature search in order to evaluate the ALM at Tropical Bank. A detailed internet search on the topic was undertaken in online databases such as Emerald searches, Google searches, Yahoo searches, dissertation abstracts, online reports, and leading money laundering journals. Data was also sourced from regulatory authorities like Bank of Uganda.

3.5.3 Data Collection procedures and Instruments

Data collection is the process of gathering and measuring information on targeted variables in an established system, which then enables one to answer relevant questions and evaluate outcomes

(Weimer, 2019). The study used primary data which was got from Tropical Bank staff. According to Hamza (2014), the following are the data collection methods that the study adopted to collect data:

3.5.3.1 Interview

Interviewing is a popular way of gathering qualitative research data because it is perceived as "talking," and talking is natural. The type of interview most often used in educational evaluation, is the semi-structured interview. A semi-structured interview means questions are predetermined, but the interviewer is free to ask for clarification. During an interview evaluation, the following issues and decisions need to be addressed: decide whom to interview; choose when to stop a particular interview; select a place for the interview; decide which questions to ask; and consider how the data was collected (Dale Thomas Griffee 2005). Interviewees were selected purposively mainly to include managers from different departments. This method will help the researcher to explain, better understand, and explore research subjects' opinions, behaviour, experiences, and phenomenon. Interview questions are usually open-ended questions so that in-depth information will be got.

3.5.3.2 Questionnaires

A questionnaire is a list of survey questions asked to respondents designed to gather specific information. It is needed in quantitative, qualitative and mixed research designs. As a research instrument, it is used to collect standard data over large numbers of people. The questionnaires were designed based on the Likert scale for respondents to give their rating of the questions asked. The Linkert scale aligns responses on a scale of 1-5 where 1= strongly disagree, 2= disagree, 3= not sure, 4= Agree, and 5= strongly agree. The questionnaires will be self-administered to the selected respondent staff. The measurement instrument for this study

consisted of four sections, that is to say section A which was about demographic characteristics

of respondents, section B about ALM practices adopted by Tropical Bank, while section C was

about the effectiveness of the ALM practices adopted, and section D was on strategies to

improve ALM strategies at Tropical Bank.

3.6 Data processing, analysis and presentation

Data processing is a process of translating raw collected data in usable information (Linda,

2011). The completed questionnaire was scrutinized for omissions and errors during the data

cleansing and verification process. The process included searching for missing responses and

screening the data for influential outliers. The data was analysed using Statistical Package for

the Social Sciences, (SPSS) version 20. Descriptive statistics to indicate the mean scores and

standard variation, averages of the factors, and demographic profile of respondents was done.

3.7 Validity

Validity refers to how well an instrument measures what it is intended to measure (Stephanie,

2016). Content validity is measured by computing the CVI (Stephanie, 2016). To measure the

validity of the questionnaire, it was given to 05 experts to give their expert view on whether the

questionnaire would capture the intended data and their ratings were used to compute the CVI

index and only questions with the CVI index of 0.5 were retained and those below removed.

CVI = (Ne - N / 2) / (N / 2) according to Lawshe, (1975).

Where;

CVI= Content Validity Index

N = is the total number of panelists

Ne = is the number of panelists indicating that it is "essential"

20

N/2 = is the average number of panelists

High scores of CVI indicate the agreement of members on the necessity of an item in the instrument (Ayre & Scally, 2014).

3.8 Reliability

Reliability refers to the degree to which the instrument gives/yields consistent or the same results on data when repeatedly administered (Mugenda & Mugenda, 2003). Reliability represents how consistent a measure is, in that the different attempts at measuring the same thing converge on the same point (Kothari, 2004). To ensure reliability, the questionnaire was pre-tested before the actual surveys. The findings were entered into computer to allow for a Cronbach alpha test to be done. The Cronbach alpha value of 0.7 or more is always considered as an indication of reliability (Taber, 2018).

3.9.0 Ethical Considerations

Ethical principles respected while conducting this study were; the researcher first got a letter of introduction from the College which was submitted to the selected Tropical bank in order to get the permission of collecting data on the institution. Plagiarism was avoided by citing and acknowledging all sources of previously published work which were used in this study. The research used only primary data. This means that the problem of harming respondents and deception was expected and this was avoided by gaining consent of respondents before collecting data from them. Worries about invasion of privacy and lack of informed consent were avoided by letting respondents to answer questions they were comfortable with.

3.10 Conclusion

This chapter described the research methodology of the study, it explained the sample selection, the sources of data and the statistical procedures used to analyses the data.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS OF FINDINGS

4.0 Introduction

This chapter presents the results of the study and interpretation of findings. The chapter comprised of four sections. Section one presents the sample characteristics showing, gender, age, marital status, education, occupation and period served with the organization. The presentation begins with a description of the sample characteristics using frequency distribution tables. The second section of the chapter presents statistics that explain the study variables under study using the item means and standard deviations. The presentation was guided by the following research objectives;

- i. To identify asset-liability management practices adopted by Tropical Bank Ltd.
- To evaluate the effectiveness of the asset-liability management practices adopted by Tropical bank
- To identify strategies for improving on the asset-liability management practices adopted by Tropical bank

The data collected was for only staff of Tropical Bank. The response rate of 100% was registered that is out of 40 questionnaires issued, 40 questionnaires were collected back.

4.1. Back ground characteristics of respondents

The characteristics of staff were also studied and findings are discussed below.

4.1.1 Gender for staff

The study investigated the gender of respondents to examine the number of males and females that took part in the study. The findings were summarized in the table below.

Table 1: Showing the demographics of respondents

Item		Frequency	Percent
Mal	e	28	69.6
Fem	ale	12	30.4
Tota	ıl	40	100.0

Source: Primary data

From table 4.1 Tropical bank staff are more of male than female. The female compose of 30.4% while 69.6% for men. This means that ladies take less attention to Tropical Bank adverts making it hard to have more female staff compared to their male counterparts.

4.1.2 Age category of staff

This was studied to find out which category of age group has more staff in tropical bank. Findings were summarized in the table below.

Table 2: Showing the Age categories of respondents

Item	Frequency	Percent
20-30 years	11	28.5
31-40 years	21	51.3
41-50 years	6	16.5
Above 51 years	2	3.8
Total	40	100.0

Source: primary data

Findings in table 4.2 revealed that majority of tropical bank staff are in the age category of 31-40 years taking 51.3%, followed by those in the category of 21-20 years taking 28.5%, 16.5% are in the category of 41-50 years, and 3.8% were above 51 years. Having most of tropical bank staff in the age bracket of 31-41% is because most Ugandans in that age group are energetic and banks are willing to employ them and in most cases they are fresh from campus.

4.1.3 Marital status of staff

The marital status of tropical bank staff was studied to determine how many of the staff were married, single, divorce, and widowed. The findings are summarized in the table below.

Table 3: Marital status of staff

Item	Frequency	Percent
Married	17	41.8
Single	23	58.2
Total	40	100.0

Source: Primary data

The findings from the table 4.3 above revealed that 41.8% were married while 58.2% were single an implication that tropical staff are more single men and women. This meant tropical bank staff are youth who are committed to work and with less family disturbances, thus increasing service delivery.

4.1.4 Level of education for tropical bank staff

The level of education for staff was also investigated and the findings are presented in the table below.

Table 4: Highest level of education for respondents

Item	Frequency	Percent
Degree	30	75.3
Diploma	6	15.8
Certificate	4	8.9
Total	40	100.0

Source: Primary data

Table 4.4 revealed that 75.3% of staff studied had degrees, 15.8% had diplomas and 8.9% had certificates an indication these respondents knew what they were answering in relation to the study. Having most of the staff possessing degrees is an indication that the group of respondents the research dealt with in this study knew what they were doing.

4.1.5 Period you have banked with tropical bank

Investigations were conducted to determine the period the staff under study had banked with tropical bank and the findings are summarized in the table below.

Table 5: For how long have you been banking with Tropical bank

Item	Frequency	Percent
1-3 years	15	38.0
4-6 years	16	38.6
7-9 years	2	3.8
above 9 years	7	19.6
Total	40	100.0

Source: Primary data

Table 4:5 indicate that 38% of the staff have worked with tropical bank for a period of 1-3years, 38.6% for 4-6years, 3.8% for 7.9years and 19.6% for over 9years. Having majority of the respondents to have worked with tropical bank for a period of 4-6years plus those above 9years implies that they had enough knowledge about the performance of the bank compared to those in the category of 1-3years.

4.2 Asset-liability management practices adopted by Tropical bank

4.2.1 Liquidity management plans

In this section, staff were asked to evaluate the liquidity management plans used by tropical bank using the statements given to them and responses were summarized in the table below.

Table 6: Showing the descriptive statistics of liquidity management plans at Tropical bank

Item	N	Minimu			Std.
	N	m	um	Mean	Deviation
Tropical Bank has an agreed strategy for the day-to-					
day management of liquidity that is well-	40	1.00	5.00	3.7152	1.71947
communicated.					
Tropical Bank Board of Directors have an approved					
the strategy and significant policies relating to the	40	1.00	5.00	4.3797	1.29972
management of liquidity.					
Tropical Bank has a management structure in place to					
execute effectively the liquidity strategy.	40	2.00	5.00	3.0380	1.07600
Tropical Bank has adequate information systems for					
measuring, monitoring, controlling and reporting	40	1.00	5.00	3.4051	1.08867
liquidity risk.					
Tropical Bank has set and regularly review limits on					
the size of liquidity positions over particular time	40	1.00	5.00	3.5316	1.20334
horizon.	.0	1.50	2.30		1.2001
Average	40			3.61392	1.27744

Source: Primary Data

The results in table 4.6 about staff evaluation of liquidity management plans at tropical bank, the findings revealed that majority of the respondents tended towards disagreement that Tropical bank; has an agreed strategy for the day-to-day management of liquidity that is well communicated (*Mean*=3.7152), Board of Directors have an approved the strategy and significant policies relating to the management of liquidity (*Mean*=4.3797), has a management structure in place to execute effectively the liquidity strategy (*Mean*=3.0380), has adequate information systems for measuring, monitoring, controlling and reporting liquidity risk (*Mean*=3.4051), has set and regularly review limits on the size of liquidity positions over particular time horizon (*Mean*=3.5316).

On average the respondents disagreed (Mean = 3.61392, SD = 1.27744) about the liquidity management plans used by tropical bank. The average standard deviation of 1.27744 indicates that the values from the data were close to the mean of the data set. It was also observed that all the standard deviations were relatively high indicating a high response variance.

On the other hand, a content analysis was conducted to analyse qualitative responses from respondents in regard to liquidity management plans at Tropical bank. The findings revealed that Tropical bank has not put in place sound liquidity plans as respondents mentioned the fact that, the bank does not have the capacity to meet its short term obligations as they follow due. This information was in agreement with the quantitative findings. One can therefore conclude that failure of Tropical Bank to have sound liquidity could be one of the reasons accounting to the many losses incurred by the bank.

4.2.2 Core or stable deposit base

In this section, staff were asked to evaluate whether Tropical Bank has a stable deposit base for managing its financial requirements and responses were summarized in the table below

Table 7: Showing the Descriptive Statistics of core or stable deposits base

Item	N	Minimu m	Maximum	Mean	Std. Deviation
Tropical Bank has an established source of funds for lending.	40	1.00	5.00	2.1266	1.59111
Tropical Bank core deposits are made in the bank's demographic market that can easily gauge customer loyalty.	40	1.00	5.00	3.5949	1.25194
Tropical Bank core deposits are used in conjunction with brokered deposits to boost capital.	40	1.00	5.00	2.3418	1.43555
Tropical Bank core deposits are matched against longer-term assets to reduce interest rate risk.	40	1.00	5.00	2.4873	1.17152
Tropical Bank has put in place local marketing campaigns and customer incentives to increase on its core deposits.	40	1.00	5.00	3.5949	1.25194
Average	40			2.8291	1.340412

Source: Primary Data

The results in table 4.7 about staff evaluation of core or stable deposit base practices adopted by Tropical Bank, the findings revealed that majority of the respondents tended towards disagreement that Tropical bank; has an established source of funds for lending (Mean=2.1266), core deposits are made in the bank's demographic market that can easily gauge customer loyalty (Mean=3.5949), core deposits are used in conjunction with brokered deposits to boost capital (Mean=2.3418), core deposits are matched against longer-term assets to reduce interest rate risk (Mean=2.4873), has put in place local marketing campaigns and customer incentives to increase on its core deposits (Mean=3.5949).

On average the respondents disagreed (Mean = 2.8291, SD = 1.340412) about core or stable deposit base management practices used by tropical bank. The average standard deviation of 1.340412 indicates that the values from the data were close to the mean of the data set. It was also observed that all the standard deviations were relatively high indicating a high response variance.

On the other hand, a content analysis was conducted to analyse qualitative responses from respondents in regard to core or stable deposit base at Tropical bank. The findings revealed that Tropical Bank has put in place plans to manage its deposits base, however they are inadequate to enable the bank have a sound deposit base. This information was in agreement with the quantitative findings. One can therefore conclude that failure of Tropical Bank to have a sound deposit plan could be one of the reasons accounting to the many losses incurred by the Bank.

4.2.3 Minimum net profit margin

In this section, staff were asked to evaluate the net profit management practices adopted by Tropical Bank using the statements given to them and responses were summarized in the table below:

Table 8: Showing Descriptive Statistics of Credibility as Service Quality standard

Item	N	Minim um	Maxim um	Mean	Std. Deviation
Tropical Bank has an established system for tracking financial information and measuring financial performance.	40	1.00	5.00	2.1013	1.43740
Tropical Bank has put in place strategies for improving on its profit margins.	40	1.00	5.00	3.6519	1.30617
Tropical Bank directors have established policies for controlling the bank's expenditures.	40	1.00	5.00	1.7722	1.24613
Tropical Bank has put in place new services that attract new clients and retain existing ones.	40	1.00	5.00	1.9747	1.49713
Tropical Bank has put in place local marketing campaigns to increase on its market share.	40	1.00	5.00	3.4810	1.37179
Average	40			2.59622	1.371724

Source: Primary Data

The results in table 4.8 about staff evaluation of the minimum net profit margin practices adopted by Tropical Bank, the findings revealed that majority of the respondents tended towards disagreement that Tropical bank; has an established system for tracking financial information and measuring financial performance (Mean=2.1013), has put in place strategies for improving on its profit margins (Mean=3.6519), directors have established policies for controlling the bank's expenditures (Mean=1.7722), has put in place new services that attract new clients and retain existing ones (Mean=1.9747), has put in place local marketing campaigns to increase on its market share (Mean=3.4810).

On Average, the respondents disagreed (Mean = 2.59622, SD = 1.371724) about minimum net profit margin practices adopted by Tropical Bank. The average standard deviation of 1.340412

indicates that the values from the data were close to the mean of the data set. It was also observed that all the standard deviations were relatively high indicating a high response variance.

On the other hand, a content analysis was conducted to analyse qualitative responses from respondents in regard to net profit margin plans at Tropical Bank. The findings revealed that Tropical Bank has put in place plans to increase its net profit profits margins. The respondents mentioned plans like increased sales promotion, advertising, after sales services have been adopted the Bank, however the effectiveness of these services is still lacking. This information was in agreement with the quantitative findings. One can therefore conclude that failure of Tropical Bank to have a sound net profit margin could be one of the reasons accounting to the many losses incurred by the bank.

4.3 Strategies for improving Asset-Liability management practices at Tropical Bank

Respondents were asked to rate the suggested strategies for improving the Asset-Liability management practices adopted by Tropical Bank and their responses were summarized in the table below.

Table 9: Showing the Descriptive Statistics on the Strategies for improving on the Asset-Liability management practices adopted by Tropical bank

Item	N	Minimu m	Maxim um	Mean	Std. Deviation
Board of Directors and Senior Management should be involved in ALM implementation	40	1.00	2.00	1.3671	.48354
Tropical Bank should introduce an effective information management system in place.	40	1.00	2.00	1.2405	.42875
Tropical Bank should put in place a formal policy to guide ALM.	40	1.00	2.00	1.2405	.42875
Tropical Bank should introduce a sound liquidity management plan.	40	1.00	2.00	1.7595	.42875
Tropical Bank management should commit to adapting to new changes in ALM.	40	1.00	2.00	1.1772	.38306
Average	40			1.35696	0.43057

Source: Primary Data

The results in table 4.10 about staff evaluation of the recommendations to improve Asset-Liability Management practices adopted by Tropical Bank, they included; Board of Directors and Senior Management getting involved in ALM implementation (*Mean*= 1.3671), should introduce an effective information management system in place (*Mean*=1.2405), should put in place a formal policy to guide ALM (*Mean*=1.2405), should introduce a sound liquidity management plan (*Mean*=1.7595), management should commit to adapting to new changes in ALM (*Mean*=1.1772).

On Average, the respondents agreed (Mean = 1.35696, SD = 0.43057) about the strategies to improve ALM practices adopted by Tropical Bank. The average standard deviation of 0.43057 indicates that the values from the data were close to the mean of the data set. It can also be observed that all the standard deviations were relatively high indicating a high response.

On the other hand, a content analysis was conducted to analyse qualitative responses from respondents in regard to strategies to improve ALM at Tropical bank. The findings revealed that respondents mention top-level involvement in implementing ALM plans at Tropical Bank, improvement in technology as one the reasons to improve ALM. The respondents mentioned plans like increased sales promotion, advertising, after sales services should be adopted by the Bank to improve on ALM plans at Tropical Bank

CHAPTER FIVE

DISCUSSION OF FINDINGS, CONCLUSION AND RECOMMENDATION

5.0 Introduction

This chapter contains the discussion and summary of findings as well as the conclusions, recommendations and limitations to the study that were drawn from the findings of the study. These have been presented objective by objective.

5.1 Discussion of findings

5.1.1 Asset-Liability Management (ALM) practices adopted by Tropical bank

The first objective of the study was to identify the ALM practices adopted by Tropical Bank.

This was done by systematically seeking staff opinions on ALM practices of liquidity management plans, core or stable deposit base, and minimum net profit margin strategies.

5.1.1.1 Liquidity management practices

Liquidity is one of the dimensions of ALM, and for this study it related to; having an agreed strategy for the day-to-day management of liquidity that is well-communicated, Board of Directors having an approved strategy and significant policies relating to the management of liquidity, having a management structure in place to execute effectively the liquidity strategy, having adequate information systems for measuring, monitoring, controlling and reporting liquidity risk, and having set and regularly reviewed limits on the size of liquidity positions. Liquidity management based practices for Tropical Bank were found to be inadequate. Liquidity management practices at Tropical Bank are not adequately measured, monitored, controlled and liquidity risk not reported on as evidenced by lack an approved strategy and policies relating to liquidity management, lack of management structure that enables effective management of liquidity risks. The findings are also consistent with the findings of Aftab, (2016) who identified several dimensions under liquidity management practices and among them was; measuring,

monitoring, and controlling of risks. According to Kanishka, (2015), liquidity management should focus on effectively addressing the problems facing the bank relating to its day to day payment of obligations as they fall due, (2017) and that liquidity management reflects the level at which the bank can settle its short term obligations. Earlier research studies by Sata, (2017) have recommended that liquidity management practices should be based on measuring, monitoring and controlling of how funds are used and made available to settle day to day obligations of the bank.

5.1.1.2 Core or stable deposit base

A core or a stable deposit base is another dimension of ALM practice, and for this study it consisted of; having an established source of funds for lending, core deposits made in the bank's demographic market that can easily gauge customer loyalty, core deposits are used in conjunction with brokered deposits to boost capital, core deposits matched against longer-term assets to reduce interest rate risk, having put in place local marketing campaigns and customer incentives to increase core deposits. Core or a stable deposit base practices of Tropical bank were found to be matched against longer-term assets to reduce interest rate risk, however the core or stable deposits base at tropical bank lacks an established source of funds for lending, core deposits are used not in conjunction with brokered deposits to boost capital, local marketing campaigns and customer incentives to increase core deposits are lacking. The findings are consistent with Virima, (2019) who identified the dimensions of a stable deposit base to include; matching long term assets to reduce risk, core deposits used in conjunction with brokered deposits to boost capital, local marketing campaigns and customer incentives intensified to increase core deposits. According to Morelight, (2019), core or stable deposit base should focus

on effectively addressing the problems facing the bank regarding Asset-Liability Management, this result is consistent with Kessler and Kelly, (2011) that poor deposits management has an unsettling and disruptive effect on day-to-day operations of a business. Kessler and Kelly, (2011), Kanishka, (2015) recommended that Managers need to consider the importance of frequent and open communication before, during, and after major planning activities occur to ensure that ALM is properly managed.

5.1.1.3 Minimum net profit margin

Minimum net profit margin is another dimension of ALM, and for this study it consisted of; having an established system for tracking financial information and measuring financial performance, putting in place strategies for improving profit margins, directors having established policies for controlling the bank's expenditures, putting in place new services that attract new clients and retain existing ones, putting in place local marketing campaigns to increase market share. Minimum net profit margin based practices of Tropical Bank were found to be; having established policies for controlling the bank's expenditures, and having in place new services that attract new clients and retain existing ones. However an established system for tracking financial information and measuring financial performance and strategies for improving profit margins are lucking at Tropical Bank. The findings are consistent with Kim Piew Lai, (2020) who identified the dimensions of profit margin to include; proper expenditure management, and increasing through attracting new clients. The better net profit margins are attained by reducing expenditures, and attracting new clients to increase sales (Caruana, 2012). Earlier research studies by Hardiman, (2012) recommended that Managers need to consider the importance of net profit maximization and make it a serious point.

5.1.2 The effectiveness of the ALM practices adopted by Tropical Bank

The second objective of the study assessed the effectiveness of the ALM practices adopted by Tropical Bank. Effectiveness of ALM practice for this study related to the ability of Tropical Bank to effectively use the ALM practices of; properly managing liquidity, a having a stable deposit base and being able to generate adequate net profit margins. The results from the study showed that practices for generating better net profit margins are fairly implemented followed by those for maintaining a stable deposit base, and those for liquidity management come last. This was in agreement with Tak Jie Chan (2019) findings regarding net profit margin as one of the relevant practices required by financial institutions in ALM. According to Arlen (2017), liquidity increase confidence among staff and it should be given much attention by banks.

5.1.3 Strategies for improving on the ALM practices adopted by Tropical Bank

The third objective of the study assessed the strategies for improving on the ALM practices adopted by Tropical bank related to; Board of Directors and Senior Management getting involved in ALM implementation, introducing an effective information management system, putting in place a formal policy to guide ALM, introducing a sound liquidity management plan, and Management getting committed to adapting to new changes in ALM. The findings are in agreement with Raps and Kauffman, (2015) who note that the most important thing when implementing a strategy is the top-level management's commitment to the strategic direction itself. Managers must demonstrate their willingness to give energy and loyalty to the implementation process. Marhamat (2013) observed that specialized technologies that better services are a key to organizational success

5.2 Conclusion

This study was designed to identify the ALM practices adopted by Tropical Bank Ltd. We can conclude that liquidity management, core or stable deposit base, and minimum net profit margin management practices are the ALM practices that are adopted by Tropical Bank. However, net profit margin practices were found most effective followed by core or stable deposit base and liquidity is the least effective.

The study recommended Board of Directors and Senior Management getting involved in ALM implementation, introducing an effective information management system, putting in place a formal policy to guide ALM, introducing a sound liquidity management plan, and management getting committed to adapting to new changes in ALM as a means of improving on ALM at Tropical Bank

5.3 Recommendations

Liquidity practices adopted by Tropical bank should be improved if the bank is to be effective in this aspect. This should be done by having an agreed strategy for the day-to-day management of liquidity that is well-communicated, Board of Directors having an approved strategy and significant policies relating to the management of liquidity, having a management structure in place to execute effectively the liquidity strategy, having adequate information systems for measuring, monitoring, controlling and reporting liquidity risk, and having set and regularly reviewed limits on the size of liquidity positions.

Tropical Bank should improve on the effectiveness of its core or stable deposits base by having an established source of funds for lending, core deposits being used in conjunction with brokered deposits to boost capital, and local marketing campaigns and customer incentives increased.

Tropical Bank should improve on its net profit margin practices by having an established system for tracking financial information and measuring financial performance and strategies for improving profit margins that are lucking.

5.4 Limitations of the Study

The study was restricted to a quantitative approach using a structured questionnaire to elicit information from the respondents meaning that other features that can be observed were not included in the findings and thus future research should incorporate qualitative factors using examples of observations and interview guide.

The study adopted a cross-sectional design where data is collected at one point in time and the findings from such studies are always limited to the current period only hence future studies should look at a longitudinal research design where businesses are monitored for a long period of time.

5.6 Areas for further research.

The study focused much on evaluating the effectiveness of ALM practices but the relationship between the variables of liquidity, stable deposit base, and net profit in relation to growth of Tropical Bank was not touched, therefore future research should consider it with a topic "Asset-Liability management practices and the growth of financial institution"

References

- Banton, Caroline. Asset/Liability Management;. https://www.investopedia.com/terms/a/asset-liabilitymanagement.asp, 2020.
- Banton, Caroline. Asset/Liability Management;. https://www.investopedia.com/terms/a/asset-liabilitymanagement.asp, 2020.
- Barone, Adam. What Is an Asset? https://www.investopedia.com/terms/a/asset.asp, 2021.
- Bassel. Principles for Sound Liquidity risk management and Suppervision. Basel, Switzerland:

 Bank for International settlements, 2019.
- Biety, Monnie M. An Introduction to Liquidity vand Asset-liability Management. https://www.woccu.org/documents/Tool4, 2017.
- CFI. Asset and Liability Management (ALM); The practice pf mitigating financial risks resulting from a mismatch of assets and liabilities.

 https://corporatefinanceinstitute.com/resources/knowledge/strategy/asset-and-liability-management-alm/, 2020.
- CFI. What is Asset and Liability Management (ALM);. corporatefinanceinstitute.com, 2020.
- Chand, Smriti. An Effective Management Information System (9 Characteristics).

 https://www.yourarticlelibrary.com/management/an-effective-management-information-system-9-characteristics/25762, 2019.
- Dash, Mihir. "A Study of the Impact of Asset-Liability Management on the Profitability of Banks in India;." Journal of Applied Management and Investments; Volume 2, Issue 4, , 2016: Page 5.

- Davis, Elliot. Community Banking Advisor: 5 Best Practices for Asset-Liability Management. https://www.elliottdavis.com/community-banking-advisor-5-best-practices-asset-liability-management/, 2018.
- FMS. Best Practices in Asset/Liability Management;.

 www.fmsinc.org/FMS/FMSEvents/Event_Display., 2020.
- Gray, Doug. Effective Asset/Liability Management: A View from the Top. Kansas -USA: https://www.communitybankingconnections.org/articles/2013/Q1/Effective-Asset-Liability-Management, 2020.

Hayes, Adam. What Is a Liability?;. https://www.investopedia.com/terms/l/liability.asp, 2020.

- Kagan, Julia. What Are Core Deposits?; Understanding Core Deposits;. https://www.investopedia.com/terms/c/core-deposits.asp, 2020.
- Kappel, Mike. How to Determine Profit Margin for Your Small Business in 3 Simple Steps. https://www.patriotsoftware.com/blog/accounting/how-do-you-determine-a-profit-margin/, 2020.
- Lubwama, Christopher. Strategic ALM and Integrated Balance Sheet Management: The Future of Bank Risk Management. world financial review, 2018.
- Melcher, Kathleen. Understanding Employee Commitment to Change;.

 https://www.degarmo.com/understanding-employee-commitment-to-change,tangehttps://www.degarmo.com/understanding-employee-commitment-to-change,2020.

- Mors. Common challenges that banks face. https://morssoftware.com/asset-liability-management-in-banks-common-challenges-and-how-to-overcome-them/#commonchallenges, 2020.
- Segal, Troy. What Is Profit Margin?, The Basics of Profit Margin.

 https://www.investopedia.com/terms/p/profitmargin.asp, 2020.
- Senyonyi, Taddewo William. Troubled Tropical Bank Records Losses For 3rd Straight Year;.

 Kampala: https://businessfocus.co.ug/troubled-tropical-bank-records-losses-for-3rd-straight-year/, 2019.
- Shikher. Asset Liability Management (ALM): Meaning, Tools and Factors;. https://www.businessmanagementideas.com/, 2020.
- Tee, Evans. "Asset Liability Management and the Profitability of Listed Banks in Ghana;."

 Journal of Economics and Finance; Volume 8, Issue 3, 2017: pp 2321-5925.
- Teeboom, Leon. Asset Liability Management Techniques;.

 https://smallbusiness.chron.com/asset-liability-management-techniques-77105.html,
 2019.

Appendix I

Questionnaire

MAKERERE UNIVERSITY

COLLEGE OF BUSINESS AND MANAGEMENT SCIENCES

Dear respondent,

I am **Falouq Kizito**, an MBA student of Makerere University conducting research on the topic titled: "**Analysis of Asset-Liability Management practices at Tropical Bank**)." The outcome of which is intended to contribute to an award of Master of Business Administration.

You are therefore kindly requested to spare some of your valuable time and provide all information required in relation to the questions raised in section A, B, C and D. Please be assured that the information received from you will be treated with a maximum level of confidentiality. For all the sections afore mentioned, please provide a tick in a box with the appropriate answer, and for questions where boxes have not been provided you are required to fill in with words that give the right response.

SECTION A: BIO DATA (Tick or fill in the rights response-in words, based on the option(s) provided per question)

1 Gender		
Male	Female	
2 Age:		
21-30years	31-40years	
41-50years	51 years and above	

3. Mari	tal status:					
Married	Single					
Widow	ed Divorced Divorced					
5. High	est level of Education:					
Post gra	aduate Degree					
Diplon	na Certificate					
6. Occu	pation:					
Manage	Accountant Compliance Officer					
Risk of	ficer Auditor					
None of	f the above others specify					
7. For 1	how long have you worked for Tropical bank?					
1-3Year	rs 4-6Years 7-9Years 0years and above]			
From s	section B-D, questions are ranked on a scale of 1-5, where 1= stre	ong	ly d	lisaş	gree	. ,
2=Disa	gree, 3=Not sure, 4=Agree, and 5=strongly agree. Tick the right bo	x a	cco	rdin	g to	0
your ac	eceptability of the statement.					
SECTI	ON B: Asset-liability management practices (ALM)					
	gards to ALM practices, please rank the following issues on a scale of 1 ALM practices at Tropical bank (1 being strongly agree, 5 being strongly				ms	
i)	Liquiditymanagement plans					
S/N	Statement	1	2	3	4	5
L1	Tropical Bank has an agreed strategy for the day-to-day management of					
	liquidity that is well-communicated					

L2	Tropical Bank board of directors have an approved the strategy and			
	significant policies relating to the management of liquidity.			
L3	Tropical Bank has a management structure in place to execute			
	effectively the liquidity strategy.			
L4	Tropical Bank has adequate information systems for measuring,			
	monitoring, controlling and reporting liquidity risk.			
L5	Tropical Bank has set and regularly review limits on the size of			
	liquidity positions over particular time horizon.			

ii) Core or stable deposit base

S/N	Statement	1	2	3	4	5
L1	Tropical Bank has an established source of funds for lending.					
L2	Tropical Bank core deposits are made in the bank's demographic market that can easily gauge customer loyalty.					
L3	Tropical Bank core deposits are used in conjunction with brokered deposits to boost capital.					
L4	Tropical Bank core deposits are matched against longer-term assets to reduce interest rate risk.					
L5	Tropical Bank has put in place local marketing campaigns and customer incentives to increase on its core deposits.					

iii) Minimum net margin

S/N	Statement	1	2	3	4	5
L1	Tropical Bank has an established system for tracking financial					
	information and measuring financial performance.					
L2	Tropical Bank has put in place strategies for improving on its profit					
	margins.					
L3	Tropical Bank directors have established policies for controlling the					
	Bank's expenditures.					

L4	Tropical Bank has put in place new services that attract new clients and					
	retain existing ones.					
L5	Tropical Bank has put in place local marketing campaigns to increase					
1		I	ı	1	1 1	1

SECTIOND: Recommendations for improving the strategies adopted.

With regards to improving ALM, please rank the following issues on a scale of 1 to 5, in terms of the recommendations to improve ALM strategies adopted by Tropical bank (1 being strongly agree, 5 being strongly disagree)

S/N	Statement	1	2	3	4	5
R1	Board of Directors and Senior Management should be involved in ALM implementation					
R2	Tropical Bank should introduce and effective information management system in place.					
R3	Tropical Bank should in place a formal policy to guide ALM.					
R4	Tropical Bank should introduce a sound liquidity management plan.					
R5	Tropical Bank management should committee to adapting to new changes in ALM.					

Thanks for your maximum cooperation.

Appendix II Interview guide

Introduction and Consent

I am **Falouq Kizito**, an MBA student of Makerere University conducting research on the topic titled: "**Analysis of Asset-Liability Management practices at Tropical Bank**)." The outcome of which is intended to contribute to an award of Master of Business Administration.

I am kindly requesting for a few minutes to interview you on matters relating to this topic. Your views are very valuable and the information provided will be for research purposes and will be handled with utmost confidentiality.

You have the liberty to refuse to participate in the study. You may also terminate the interview if you feel like. The interview will last for about 40 minutes. Your participation is voluntary and you can withdraw from the interview at any time.

May I proceed with the interview?

Questions

i.	What are the asset-liability management practices adopted by Tropical Bank Ltd?
ii.	In your own view, are the Asset-Liability Management practices adopted by the Bank effective?
	If NOT what could be the cause for their ineffectiveness?
iii.	What strategies should Tropical bank adopt to improve on its Asset-Liability
	Management practices?