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SCHOOL OF ECONOMICS AND BUSINESS STUDIES

DEPARTMENT OF ACCOUNTING

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**CONTRIBUTION OF FINANCIAL STATEMENTS ANALYSIS TO
DECISION MAKING OF COMMERCIAL BANKS IN RWANDA**

CASE STUDY: BANK OF KIGALI PLC

PERIOD: 2021-2023

A dissertation submitted and presented to the School of
Economics and Business Studies in partial fulfillment of
the Academic Requirements for the Award of a Bachelor's
Degree with Honors in Accounting

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Kigali, September 2024

DECLARATION

I, **ISHIMWE VENERANDA**, hereby declare that this research work entitled “**Contribution of Financial Statements Analysis to Decision Making of Commercial Banks in Rwanda**” case study: **bank of Kigali main branch (2020-2023)**. Is my original work and it has never been submitted anywhere else for any academic qualification.

Date...../...../2024

ISHIMWE Veneranda

Signature.....

CERTIFICATION

This is to certify that the work entitled “**Contribution of Financial Statements Analysis to Decision Making of Commercial Banks in Rwanda**”. Case study: **BANK OF KIGALI main branch (2020-2023)**. Was conducted by **ISHIMWE Veneranda** and submitted by under my guidance and supervisor.

NYIRAKAGEME Alice

Signature

Date...../...../2024

DEDICATION

To Almighty God;

To my parents

To my brothers and sisters

To my friends and relatives;

I dedicate this study.

ACKNOWLEDGEMENTS

First and foremost, my profound thanks go to Almighty God, to whom I owe my living, wisdom and good health during time, protection and guidance during time, I have been working on this peculiar work. Glory is to him.

My special thanks go to honorable **Prof. Dr. RWIGAMBA Balinda** founder and president Kigali independent University (ULK) for the work of his hands which give us opportunity of pursuing our university studies. I owe special thanks to the administration of Kigali independent university (ULK) more especially the department of accounting that provide me with sound knowledge that acted as fertile ground to words the achievements of the research.

My special thanks go to my supervisor **NYIRAKAGEME Alice** for her guidance, advises, inspiration, correction, comments and criticism which inspired many ideas and produced some very satisfying solution.

I would like also to thank to Bank of Kigali PLC, Main branch staff who accepted to provide useful information through self-administered documentation analysis to make our research to get a success.

Finally, I am also indebted to my colleagues and especially my classmate who contributed both morally and materially to ward my achievement, I will always recognize high valuable of your support you rendered to me. the solidarity and cooperation exhibited during my stay in ULK, which enabled the successful completion of my studies.

I thank you all, May God bless you!!

LIST OF ABBREVIATIONS, ACRONYMS AND SYMBOLS

BK	: Bank of Kigali
CAPM	: Capital Asset Pricing Mode
CFROI	: Cash Flow Return on Investment
Dr	: Doctor
EMH	: efficient market hypothesis
RWF	: Rwanda Francs
FASB	: Financial Accounting Standards Board
IAS	: International Accounting Standards
Prof	: Professor
ROA	: Return on Assets
ROE	: Return on Equity
ROL	: Return on Loans
ROI	: Return on Investment
ROS	: Return on Sales
RSE	: Rwanda Stock Exchange
MPT	: Modern Portfolio Theory
ULK	: Université Libre de Kigali
%	: Percentage

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Abstract

This study investigates the contribution of financial statement analysis to decision-making within commercial banks in Rwanda, with a focus on Bank of Kigali PLC. The research aims to analyze the effectiveness of financial statement analysis and its impact on the bank's decision-making processes. Utilizing horizontal, vertical, and ratio analyses, the study evaluates the financial performance of Bank of Kigali PLC from 2021 to 2023. Key findings reveal a significant increase in net profit, from 51,894,970 Rwf in 2021 to 74,817,679 Rwf in 2023, demonstrating robust financial growth. The net profit margin improved from 28.80% to 33.35%, the return on equity (ROE) increased from 18.16% to 20.42%, and the return on assets (ROA) rose from 3.26% to 3.53% over the same period, indicating enhanced profitability and efficient asset utilization. Additionally, the debt-to-equity ratio remained stable, fluctuating between 4.57 and 4.79, and the current ratio improved from 1.23 to 1.26, reflecting effective management of liabilities and liquidity. These positive trends underscore the importance of financial statement analysis in informing strategic decisions, managing costs, and leveraging assets efficiently. The study recommends enhancing financial reporting, focusing on cost management, leveraging technology, strengthening risk management, diversifying revenue streams, investing in employee training, and enhancing customer-centric strategies. By implementing these recommendations, Bank of Kigali PLC can sustain its financial performance and maintain a competitive edge in the market. The study supports the hypothesis that effective financial statement analysis significantly contributes to informed decision-making and improved financial performance in commercial banks.

CHAPTER ONE: GENERAL INTRODUCTION

Introduction

The introduction covers the background of the research, statement of the problem, research objectives, research questions, hypothesis of the study and scope of the study, significance of the study and finally structure of the research work.

1.1. Background of the Study

The global financial landscape is profoundly shaped by the contribution of financial statement analysis to the decision-making processes of commercial banks. As articulated by Smith (2019), financial statement analysis stands as a cornerstone for prudent decision-making in commercial banking on a global scale. Its significance is universal, enabling banks to comprehensively assess the risk and return profiles of potential investments, manage capital allocation effectively, and maintain overall financial stability. The analytical study of financial performance of any company is the most basic economic decision that should be taken to financial manager, since it helps them to take the effective decision in the operation of the company. There is an increasing trend for businesses to produce information on social, environmental and sustainable aspects of their operations (Bhattacharya, Black, Christensen, and Larson, 2015). The accounting principles require every business company and public company to make a record of every transaction that takes place within accounting period. The main purpose of this recording is to help the business prepare its financial statement at the end of the accounting period (Elliott & Hanna, 2014).

The accuracy in recording and keeping business transaction was a paramount in facilitating the preparation of the financial statement which is prepared at the end of accounting year with the purpose of determining the financial position of the business at a given period. Effective financial decision making is based on relevance information where by, reported information must be relevant to investors and other users as an aid in the performance based on an entity's financial position, performance, risks, and business prospects, financial performance must be also based on understandability of information; financial reports must be clear and avoid unnecessary complexity or inconsistency that may limit the ability of users to comprehend the information and then, in

today's fast-moving markets, information must be communicated quickly if it is to be useful in supporting investors' decisions (Kothari, 2011).

The financial statements are like mirror in which the position of the business can be seen and reviewed. The financial statements which are the income statement, statement of financial position, cash flow statement and statement of change in equity give a lot of information about the income earned, the financial position of the business, movement in cash balances and the movement in owner' equity. However, the information contained in these statements can be better of use if they are analyzed and interpreted (Katsiaryna, 2014).

Financial statement analysis therefore is an important processing system designed to provide data for decision making models, such as the portfolio selection model, bank lending decision model, and corporate financial management model. Analysis of financial statement is for interest lenders' short term as well as long term, investors, security analysts, managers and others. It is helpful in assessing corporate excellence, judging creditworthiness, predicting bankruptcy, and assessing market risk.

In European financial institutions, financial statements explained banking activities into objective in provision of evidences and facts related to the bank success, pertinent issues and strategies to overcome those issues. Therefore, knowledge and skills of financial analysis are very necessary for different people such as investors, creditors and regulators. Like ballplayers who could not manage score, an operating manager who did not fully acquire awareness related to accounting and finance working conditions under an unnecessary handicap (Higgins, 2016).

The ultimate goal of financial statement in Africa is of offer financial information to stakeholders. In this regard, the financial Accounting Standards Board (FASB) is responsible for setting up the international accounting standards (David, 2014). The aforementioned standards address accounting treatment of business transaction and disclosing the same in financial statements issues. Accounting affords information and evidences to internal and external users.

The significance of financial statement analysis in guiding decision-making processes within commercial banks resonates distinctly at the African level, where scholars have extensively explored its methodologies, impacts, and challenges. Adeyemi (2018) emphasizes the pivotal role of financial statement analysis as a vital tool for comprehensively understanding the financial

health of African commercial banks, facilitating strategic decision-making. Kamau et al. (2020) extend this perspective, highlighting its critical role in evaluating creditworthiness, managing risks, and informing investment decisions across diverse African markets. The adaptability of methods used in financial statement analysis within African banking, as noted by Abubakar (2019), underscores the commitment to thorough assessments of financial health, encompassing ratio analysis and cash flow modeling. Nkosi (2021) emphasizes that financial statement analysis empowers decision-makers in African commercial banks to navigate complex economic environments, make informed lending decisions, and strategically allocate resources for sustainable growth. However, Ofori (2022) draws attention to the unique challenges within the African context, including variations in regulatory frameworks, economic development, and infrastructural disparities, necessitating nuanced approaches to financial statement analysis. In conclusion, the wealth of insights from these scholars collectively underscores the pivotal role of financial statement analysis in guiding decision-making processes within African commercial banks.

Financial statements in Rwandan financial institutions perspective are very useful in the assessment of their financial performance. However, the lack of financial information to the institution can cause non-effective performance decisions of many commercial banks in Rwanda. With the purpose to avail reliable financial evidences and implement the culture of qualitative reporting, effective financial statements are getting more and more required in financial institutions (Rwemalika,2015).

1.2. Problem Statement

In modern business environment, which is becoming more competitive, the survival of firms, be it small or large; depend upon the strategic decisions made by management. This is however done with the help of financial statements analysis, which is a big challenge to most countries having shortage of professional accountants and financial analysts as it is the case to our country. Every human being needs information in order to make the right decision, the right time. In a business organization, the financial data are obtained from the financial statements. Decision makers must analyze the data in financial statements to provide the meaningful information for use. Without correct information, the decisions made by decision makers may impede the growth of the organization (Conteh & ., 2020). In this view, therefore, a sustained success will depend on how

good decisions are made based on the proper analysis of financial statements. In modern business environment, which is becoming more competitive, the survival of firms, be it small or large; depend upon the strategic decisions made by management. This is however done with the help of financial ratios, which is a big challenge to most countries having shortage of professional accountants as it is the case of Rwanda (Nagpal et al., 2022)

The quality of information from financial analysis influences decisions made which in turn affect the performance level of financial institutions. The lack of reliable financial information provided by financial institutions is a problem in developed and developing countries and that the rate of the bank failure in developing countries is higher than in the developed world (Nagpal et al., 2022). Poor financial management is a major cause of business failure and that quality information is critical to organizations' success in today's highly competitive environment (Purba, 2021).

According to (Ssejjaka, 2023) and (Wabwire, 2022) there is poor level of record keeping in financial institutions especially in Rwanda. Poor record keeping and inefficient use/analysis of financial information to support financial decision making are a major cause of the financial institutions' failure (Conteh & ., 2020). Probably the poor performance exhibited in financial institutions in Rwanda could be due to shortcomings in the quality of financial information which influences the decisions made.

Many users of financial information are not knowledgeable about financial analysis and how financial analysis can be applied by financial institutions for the improvement of their performance. In view of the above stated problems, this research is embarked upon to analyze the contribution of financial analysis to decision making in Bank of Kigali Ltd.

1.3. Research Questions

In pursuit of the general and specific objectives, this study seeks to answer the following questions:

1. Does Bank of Kigali analyze effectively financial statement?
2. Does the financial statement analysis contribute to the decision-making of BK Group plc?

1.4. Objectives of the study

The objectives of the study are categorized as general and specific objectives as shown below:

1.4.1 General objective

The objectives of the study are categorized as general and specific objectives as shown below:

The general objective of the study is to assess the impact of financial statement analysis methods in influencing decision-making within Rwandan commercial banks.

1.4.2. Specific objectives

1. To analyze the effectiveness of financial statements analysis in Bank of Kigali PLC
2. To analyze the contribution of financial statement analysis to the decision making in Bank of Kigali.

1.5. Hypothesis

As mentioned earlier, a hypothesis is concerned with an explanation of something previously unexplained. It requires some form of investigate process. For the research to be acceptable, others must be able to use the same procedure to achieve similar results. A hypothesis therefore provide direction to research it bridge the gap between the problems and study evidence needed for solution in regard with the question set above the following are the hypothesis:

1. Bank of Kigali analyzes financial statement effectively
2. Financial statement positively contributes to the decision making in Bank of Kigali.

1.6. Scope of the study

This scope refers to the boundaries of the study in terms of time, domain and space and geography

1.6.1. Time scope

The study will cover the interval of four years from 2021 up to 2023. The main reason of choosing this period is consideration of obtaining the data which are both available and update.

This study was highly analyzed the contribution of financial statements on decision making of Bank of Kigali and analysis record since 2020-2023. The reason of choosing this period is consideration of obtaining find the update information about preparation and presentation of financial statement analysis on how contribution on financial Decision-making of Bank of Kigali.

1.6.2. Domain of scope

The study will focus on domain of financial analysis. This research will focus on domain of banking, it analyze the contribution of financial statement analysis on decision making in BANK OF KIGALI.

1.6.3. Geographical scope

This research will focus on the financial statement analysis within Bank of Kigali which is located in Kigali city. The researchers choose Bank of Kigali as case study because it facilitates them to get information related to the financial statement easily.

1.7. Significance of the study

The study will help the researchers to analyzes the contribution of financial statements analysis to the financial decision making of commercial banks in Rwanda and research findings will equip researchers with critical skills required in dealing with practical problems.

The study will help the commercial bank to improve its financial Decision-making through implementation of the recommendation and then commercial bank staff will know the financial practices, element and influence of financial statements analysis to the decision making of Bank of Kigali as commercial bank

The findings of study will be added to existing literatures on financial statements analysis and decision making of commercial bank so that it will be useful as reference to other researchers and scholars interested in that area.

1.7.1. Personal Interest

This study helped the researchers with the knowledge as well as skills that should be applied in solving practical problems and researchers were able to match the academic knowledge with the reality on the ground. This research helped to fulfill the academic requirements for award of bachelor's degree in accounting as a part of regulations of ULK and to have a deep knowledge about financial statement.

1.7.2. Academic and scientific Interest

This research presented the information about the contribution of financial statement analysis on decision making of commercial bank which other researchers base on while conducting others research on related topics as a reference. The research finding helped other researchers in the university and other stakeholders to carry out more detail research in related fields.

1.7.3. Social interest

The research will help interest parties to know very well contribution of the financial statement analysis to Decision-making of commercial bank and in order to strengthen their ability by fulfilling their objective and it will help them to implement recommendations and use data if needed. The findings of study, conclusion and recommendations are great importance in improving BK PLC's financial performance toward financial statements analysis. This study will also add the stock of knowledge of financial statements analysis to Bank of Kigali

1.8. Structure of the study

The Research ended by general conclusion and recommendation. The work is divided into four chapters: the first chapter present the general introduction including the significance of the study, scope, problem statement, hypothesis and the objectives of the study then structure of the study. The second chapter presents literature review. It looking on what other authors have talked about financial analysis of commercial banks in Rwanda. The chapter three present research methodology and it focused on the method and techniques were used to achieve the objectives of the study. The chapter four present the findings, assess whether financial statements analysis contribute to commercial banks the BK. the study end by a conclusion, recommendation and which comprises the summary of the work and suggestions regarding to better application of financial statement analysis was presented.

CHAPTER TWO: LITERATURE REVIEW

2.0. Introduction

this chapter concerns with related literature or what other authors reported about the financial statement analysis to the decision making of commercial banks in Rwanda. It is the complete review of the study. Therefore, it reviewed the relevant literature resulting from work of several researchers presented in the books and other published documentations and internet.

2.1. Definition of Key Terms

This section provides the definitions of the key concepts of this study.

2.1.1. Financial Statement

According to Atrill & McLaney (2015) a financial statement refers to a summary explaining or providing a picture of the financial position/business performance or activities of a business during a certain period.

Financial Statements have been widely defined in the extent literature by scholars and experts. According to the Companies and Allied Matters Act 2014 (CAMA), financial statements consist of the basic statement of accounts used to convey the quantitative information of financial nature about a business to shareholders, creditors and others interested in the reporting bank's financial condition, result of operation uses and sources of funds. Financial statements are defined as reliable financial information about the economic resource and obligations of a business enterprise (Nwoha, 2015).

According to Meigs & Meigs (2014) defines financial statement is a logical point to begin the study of accounting. This is because most of the accounting information we see and use every day reflects the terminology and concepts used in these statements.

According to Duru (2012) financial statements are defined as a statement which conveys to management and to interested outsiders a concise picture of the profitability and financial position of a business. Concurring with above definitions, we can generally define published financial statement as the audited annual report and accounts of an organization including the balance sheet, profit and loss account and the cash flow statements which gives a summary of the results of operations of a firm, the financial condition of a bank or organization for the period represented.

2.1.2. Financial Statement analysis

Financial statement analysis is the process of evaluating a company's financial strengths and weaknesses by creating a suitable link between the elements shown in financial statements such as the balance sheet, income statement, cash flow statement, and statement of change in equity (John N, 2014).

It also refers to the process of critically examining financial information in order to understand and make decisions about the firm's operations. As an integral part of the broader field of business analysis, it includes financial statement analysis and interpretation in such a way that it undertakes a full diagnosis of the profitability and financial soundness of the business and for measuring the firm's overall financial health over a given period of time (Foster, 2013).

2.1.3. Decision making

Financial decision-making refers to the process of selecting among various financial alternatives or strategies based on an evaluation of their costs and benefits, with the objective of achieving the financial goals of individuals, businesses, or organizations (Brigham, E. 2013)

2.2. Theoretical Review

The theoretical Review gives the meaning of a word in terms of the theories on financial statement such as proprietary, residual equity theory, entity theory, enterprise or social theory, DuPont mean-variance of portfolio investment theory and the modern portfolio theory. It assumes both knowledge and acceptance of the theories that this research work depends upon.

2.2.1. Theories related to financial statement analysis

Here, researcher discuss about the same theories related to financial statement analysis

1. Proprietary and residual equity theory

Proprietary equity theorists such as Husband (2012), insisted that the accounting process of companies must be conducted from the shareholders' perspective. Staubus (2013), developed the residual equity theory which considered that the accounting must be done from the perspective of the residual equity holders, which for a going concern coincides with that of the common shareholders. Residual equity theory is often regarded as a more restrictive form of proprietary theory. Under the proprietary view, transactions and events are analyzed, recorded and accounted

for as to their immediate effect on the proprietors. Financial statements are prepared from the viewpoint of the proprietors and are meant to measure and analyses their net worth expressed by the accounting equation:

$$(1) \Sigma \text{ assets} - \Sigma \text{ liabilities} = \Sigma \text{ equity, proprietorship or net worth}$$

In the proprietary view, the assets are considered the proprietors' assets, and the liabilities are the proprietors' liabilities. According to Newlove and Garner (2012) under proprietary theory "liabilities are negative assets – negative properties, which must be sharply defined and separated in the accounting process." Revenues are increases in proprietorship and expenses are decreases. Net profits, "the excess of revenues over expenses, accrues directly to the owners; it represents an increase in the wealth of the proprietors." (Hendriksen and Van Breda, 2014). The accounting equation becomes:

$$(2) \text{ Assets} - \text{ Specific Equities (=Liabilities + Preferred Stock)} = \text{Residual Equity}$$

2. Entity theory and enterprise or social theory

Under the entity view, transactions are analyzed as to their effect on the accounting entity. Financial statements are prepared from the viewpoint of the entity. The income statement is meant to calculate income for distribution and analyze the bank's performance over a period, whereas the balance sheet serves to indicate the security or riskiness of the bank's financial position. Under the different varieties of entity theory, the accounting equation may take the following forms.

$$(1) \Sigma \text{ assets} = \Sigma \text{ liabilities (Paton, 1922) Or}$$

$$(2) \Sigma \text{ assets} = \Sigma \text{ equities (Paton, 1922) Or}$$

$$(3) \Sigma \text{ assets} = \Sigma \text{ equities} + \Sigma \text{ liabilities (Hendriksen and Van Breda, 2016)}$$

Companies' actions affect many different stakeholders such as stockholders, creditors, customers, employees, the government as a taxing and regulatory authority and the public at large. (Hendriksen and Van Breda, 2015)

The balance sheet equation expressing the enterprise theory is:

(2) Assets = Investors' input contributions

Suojanen proposed that large companies prepare a value-added statement in addition to the balance sheet and income statement. "If the enterprise is considered to be an institution, its operations should be assessed in terms of its contribution to the *flow* of output of the community." (Suojanen, 1954) "Although stockholders have legal rights as owners, from the point of view of the enterprise their rights are subsidiary to the organization and its survival." (Kam, 2010).

3. DuPont Mean- Variance of Portfolio Investment Theory

According to Adebimpe (2012) who adopted DuPont equation stated that, it is an expression which breaks return on equity down into three parts. The name comes from the DuPont Corporation, which created and implemented this portfolio formula into their business operations in the 1920s. It was adopted from Markowitz Mean-Variance Portfolio theory which states that profit of a firm is a function of total sales, total assets, shareholder equity contribution and the liabilities (debts). This formula is known by many other names, including DuPont analysis, DuPont identity, the DuPont model, the DuPont method, or the strategic profit model.

In the DuPont equation, ROE is equal to profit margin multiplied by asset turnover multiplied by financial leverage. Under DuPont analysis, return on equity is equal to the profit margin multiplied by asset turnover multiplied by financial leverage. By splitting ROE (return on equity) into three parts, companies can more easily understand changes in their ROE over time.

4. The Modern Portfolio Theory (MPT)

Harry Markowitz (2011), an American economist in the 1950s developed a theory of "portfolio choice," which allows investors to analyze risk relative to their expected profit. For this work Markowitz, a professor at Baruch College at the City University of New York, shared the 1990 Nobel Memorial Prize in Economic Sciences with William Sharpe and Merton Miller.

Markowitz's theory is today known as the Modern Portfolio Theory, (MPT). The MPT is a theory of investment which attempts to maximize portfolio expected profit for a given amount of portfolio risk, or equivalently minimize risk for a given level of expected profit, by carefully choosing the

proportions of various assets. Although the MPT is widely used in practice in the financial industry, in recent years, the basic assumptions of the MPT have been widely challenged.

The Modern Portfolio Theory, an improvement upon traditional investment models, is an important advance in the mathematical modeling of finance. The theory encourages asset diversification to hedge against market risk as well as risk that is unique to a specific bank. The theory (MPT) is a sophisticated investment decision approach that aids an investor to classify, estimate, and control both the kind and the amount of expected risk and profit; also called Portfolio Management Theory. Essential to the portfolio theory are its quantification of the relationship between risk and profit and the assumption that investors must be compensated for assuming risk. Portfolio theory departs from traditional security analysis in shifting emphasis from analyzing the characteristics of individual investments to determining the statistical relationships among the individual securities that comprise the overall portfolio (Edwin and Martins 2015).

5. Financial analysis and Reports .

According to IAS 1.13, financial statements shall present fairly the financial position, financial performance and cash flows of an entity. Fair presentation requires that faithful representation of the effects of transaction, other events and conditions in accordance with the definitions and recognition criteria for assets, liabilities, income and expenses set out in the framework. Both standards basically state that financial statements shall be true and fair, nevertheless, this is not always the case in financial reports. Frequently, companies manipulate with accounting data to show a better financial position than it is; this is call ‘window-dressing’.

As Rees (1995) also describes analysis of Smith & Hannah (1991), where the latter classify the most common accounting manipulations into 11.

- Excessive provisions: Goodwill is overstated and not expensed, thereby increasing profits
- Extraordinary items: Significant reorganization/rationalizations costs showed as extraordinary items.
- Off balance sheet finance: Loans not shown on balance sheet
- Capitalized costs: Inappropriate capitalization to reduce costs
- Non-trading profits: Such profits classified as normal earnings figure
- Brand accounting: Brands showed as intangible assets
- Depreciation rate change: Reduction in depreciation policy to show growth

- Pension fund holidays: Reduction in pension fund contribution shows larger pre-tax profits
- Earn-out commitments: Profit-sharing schemes to personnel
- Foreign exchange mismatch: Mismatch between debts and deposits
- Low tax charge: If low tax charge appears, profit manipulation probable.

Although the research by Smith & Hannah (1991) is a bit outdated, as accounting standards have changed, still, the conclusions they make are important. Many largest UK quoted firms have these ‘creative accounting’ procedures. They also found that these procedures significantly affect important security market variables – price/earnings ratio, annual abnormal return and beta.

2.2.2. Types of Financial Statements

There are basically ten main types of financial statements.

they Include:

1. Income Statement

Income statement also called a profit and loss account, which is generally considered to be the most useful of all financial statements. It explains what has happened to a business as a result of the operations between two balance sheet dates. For this purpose, it matches the revenue and cost incurred in the process of earning revenues and shows the net profit and a loss suffered during a particular period. Income statement is prepared to determine the operational position of the concern. It is a statement of revenue earned and the expenses incurred for earning that revenue. If there is excess of revenue over expenditure it will show a profit and if the expenditure is more than income there was a loss (IFRS, 2009).

The income statement shows the results of operations for the past year and usually includes both the current and prior year. It lists all sources of revenue and expenses. The statement measures the profitability of the cooperative for a given period of time. Although it does not show timing of cash-flows, the statement best describes the status of the business (Eversull and Beverly, 2014).

Profit or loss (sometimes called net income) is frequently used as a measure of performance or as the basis for other measures, such as return on investment or earnings per share. The elements directly related to the measurement of profit are income and expenses. Income is increases in

economic benefits during the accounting period in the form of inflows or enhancements of assets or decreases of liabilities that result in increases in equity, other than those relating to contributions from equity participants. Expenses are decreases in economic benefits during the accounting period in the form of outflows or depletions of assets or incurrence of liabilities that result in decreases in equity, other than those relating to distributions to equity participants (IPSASB, 2012). To help thing easily, consider an apparel manufacturer as an example in outlining the major components of the income statement (PAUL SOLOMON, 2013).

- **Sales**

This is the gross revenue generated from the sale of less returns and allowance (reduction in price for discount taken by customers)

- **Cost of goods sold**

This is the direct cost associated with manufacturing the juices. These costs include material used, direct labor, plant manager salaries and other cost associated with operating a plant (for example, utilities equipment repair, etc.)

- **Other income and expenses**

Other income and expenses are those item that do not occur during the normal course of business operation. For instance, a juice maker doesn't normally earn income from rental property or interest on investment, so these income sources are accounted for separately. Interest expense on debt is also included in category. A net figure is computed by subtracting other expenses from other income (Qyasa, 2016)

- **Net profit before taxes**

This figure represents the amount of income earned by the business before paying taxes. The number is computer by adding other income (or subtracting if other expenses exceed other income) to the operating profit.

- **Income taxes**

This is the total amount of state and national income taxes paid.

- **Net profit after taxes**

This is the “bottom line” earning of the business it is computed by subtracting taxes paid from net income before taxes.

- **Gross profit**

The gross profit represents the amount of direct profit associated with the actual manufacturing of the juices. It's calculated as less the cost of goods sold (Khanfar, 2016).

- **Operating expenses**

These are the selling, general and administrative expenses that are necessary to run the business. Example include office salaries, insurance, advertising, sales commission and rent (Kieso, 2016).

- **Depreciation**

Depreciation is defined as the allocation of the cost of the years in which benefit is expected from it used. Depreciation is defined as wear and tear. Depreciation expense is usually included in operating expenses and / or cost of depreciation results when a bank purchases a fixed asset and expenses it over the entire period of its planned use, not just in the year purchased. The IFRS required certain depreciation schedules to be followed for tax reasons (Nahar H., 2015).

Depreciation is no cash expense in that the cash flows out when the asset is purchased, but the cost but the cost is taken over a period of years depending on the type of asset. Whether depreciation is included in cost of goods sold or in operating expenses depends on the type of asset being depreciated (Banerjee, 2015).

Depreciation is listed with cost of goods sold if the expense associated with the fixed asset is used in the direct production of inventory. Example includes the purchase of production equipment and machinery and a building that house a production source. Depreciation is listed with operating expenses if the cost is associated with fixed asset used for selling, general and administrative purposes. Examples include vehicle for sales to people or an office computer and phone system (John N., 2017).

- **Operating profit**

This amount of profit earning during the normal course of operations, it is computed by subtracting the operating expenses from the gross profit. It is ascertained by deducting the indirect revenue operating expenses incurred (salary to staff, general expenses, and selling expenses) for that accounting year from the gross profit (Osama S., 2015).

2. Statement of financial position

According to Kaberuka W. (2016); this is the state of affairs of an organization at a particular point in time. The financial position discloses all assets that belong to the organization at that point in time as well claims held by other parties against those assets at time. Information contained in the financial position indicates the financial position of the business at a particular point in time which enables different stakeholders of the firm to make informed decision on their interest.

The financial position provides an approaching into the financial status of a particular time. Accounting is based up on a double entry system; for every entry into books there has to be an opposite and equal entry. The net effect of the entries is zero which results your books being balanced. The proof of these balancing acts is shown in financial position;

ASSET= Liabilities + Equity

- **Current asset**

These are the assets that may be converted into cash; sold or consumed within one year or less. These usually include inventory and short-term investments; account receivable; inventory and prepaid expenses. For juices manufacturer; the inventory would include raw material, work – in progress (started but not finished) and finished good (juice ready to sell customers). Account receivable represents the amount of money owed to the business by customers who have purchased on credit (George F., 2016).

- **Fixed asset or non- current asset**

These are durable physical properties used in operations that have a useful life longer than one year. These are tangible assets that may not be converted into cash within one year. Noncurrent

assets are for long term use and include land; building leasehold; improvement; equipment; plant and machinery and vehicle (Jerold L, 20014).

Intangible assets: these are assets that lack physical substance but provide economic rights and advantage; you cannot touch or see but have value. Intangible asset includes franchises; copy rights; Good will; trade mark, patents and organization cost (Houton, 2013).

- **Other asset**

This is a special classification for usual items. That cannot be included in one of the other asset categories examples include long term prepaid expenses, non-current receivable and advances to subsidiaries. There are many assets that can be classified as other asset, and most business balance sheet have an ‘other asset’. some of the most common other assets include cash value of rlife insurance, long- term investment property and compensation due from employees (Fridson, 2014).

- **Current liabilities**

There are obligations of the business that are due within one year. Current liabilities include notes payable on lines of credit or other short-term loans, current maturities of long-term debt, account payable to trade creditors, accrued expenses and taxes (an accrual is an expense such as payroll that is due to employees for hours worked but has not been paid), and amount due to stock elders (Peter W, 2016)

- **Long-term liabilities**

These are obligation of business that are not due for at least one year. Long-term liabilities typical consist of all bank debt or stockholder loans payable outside of the following 12-month period (Houton, 2015).

- **Owner’s equity**

This figure represents the total amount invested by the stockholders plus accumulated profit of the business. Components include common stock, paid in –capital (amount invested not involving a stock purchase) and retained earnings (cumulative earning since inception of the business less dividends paid to stockholders) (Foster G., 2010)

3. Cash flow statement

According to (Ohison, 2015) Cash flow statement can be defined as a statement which show how the inflows and outflows of cash caused by the firm's activities during a stated period.

Statement generally prepared at the end of an accounting year showing there in the inflows and outflows of the cash of an enterprise during that accounting year. One of the quarterly financial reports any publicly traded bank is required to disclose to the SEC and the public. The document provides aggregate data regarding all cash inflows a bank receives from both its ongoing operations and external investment sources, as well as all cash outflows that pay for business activities and investments during a given quarter.

Because public companies tend to use accrual accounting, the income statements they release each quarter may not necessarily reflect changes in their cash positions. For example, if a bank lands a major contract, this contract would be recognized as revenue (therefore income), but the bank may not yet actually receive the cash from the contract until a later date. While the bank may be earning a profit in the eyes of accountants (and paying income taxes on it), the bank may, during the quarter, actually end up with less cash than when it started the quarter. Even profitable companies can fail to adequately manage their cash flow, which is why the cash flow statement is important: it helps investors see if a bank is having trouble with cash (Gavtam, 2015).

- **Cash flow from operating activities**

An accounting item indicating the money a bank brings in from ongoing, regular business activities, such as manufacturing and selling goods or providing a service. Cash flow from operating activities does not include long-term capital or investment cost. It does include earnings before interest and taxes plus depreciation minus taxes. Operating decisions that are concerned with the major day –to-day activities that generate revenues and expenses, it helps users evaluate the cash impact of management operating decision. Operating activities transactions that affect the purchase, processing, selling of a bank's products and services and delivery of the bank's product as well as collecting payment from its customers. (Foster G., 2014)

Also called operating cash flow or net cash from operating activities, it can be calculated as follows: Cash flow from operating activities=EBIT+ Depreciation-Taxes

Cash flow from operating activities is reported on the cash flow statement in a bank quarterly and annual report. Cash flow from operating activities also includes change in working capital (current asset minus current liabilities), such as increase in inventory, short-term debt, account receivable and account payable. Income that a bank receives from investment activities is reported separately, since it is not from business operations (Gavtam, 2015).

- **Cash flow from investing activities**

An item on the cash flow statement that report the aggregate change in a bank cash position. Resulting from any gains (or losses) from investment in the financial market and operating subsidiaries and changes resulting from amounts spent on investments in capital asset such as plant and equipment. Investing decision that include the choices to acquire or dispose of a plant, property and other long- term productive asset and provide or collect cash as a lender or as owner of securities. Statement of cash flows that helps users understand management’s investing decisions. Investing activities are purchased or sales of assets (land, building, equipment and marketable securities etc...) loans made to supplies or received from customers, and payments related to mergers and acquisitions (Foster G., 2014).

When analyzing a bank cash flow statement, it is important to consider each of the various sections which contribute to the overall change of cash position. In many cases, a firm may have negative overall cash flow for a given quarter, but if the bank can generate positive cash flow from its business operations, the negative overall cash flow may be a result of heavy investment expenditures, which is not necessarily a bad thing (Nahar H., 2011).

- **Cash flow from financing activities**

Financing activities are activities that change the equity capital and borrowing structure of the entity. The interest and dividends received and paid may classified as operating, investing, or financing cash flows, provide that they are classified consistently from period to period.

4. Statement of Change in Equity

The balance sheet shows the financial condition of the business at a particular moment of time while the income statement discloses the results of operations of operation of business over period

of time. However, for a better understanding of the affairs of the business, it is essential to identify the movement of working capital of cash in hand out of the business (Eversull and Beverly, 2013).

This information is available in the statement of change in financial position of the business. The statement may emphasize in any of the following aspects relating to change in financial position of the business: Change in working capital position: In such case the statement is termed as SCFP (position in working capital basis) or popularly fund flow statement, Change in cash position. In such case the statement is termed as SCFP (cash basis) or popularly cash flow statement, Change in overall financial position. In such case the statement is termed as simply as statement of changes in financial position (SCFP) (Fozia and Arun, 2014)

5. Note to Financial Statement

Notes to the Financial Statements are additional notes and information added to the end of the financial statements to supplement the reader with more information. Notes to Financial Statements help explain the computation of specific items in the financial statements as well as provide a more comprehensive assessment of a company's financial condition. Notes to Financial Statements can include information on debt, going concern, accounts, contingent liabilities, or contextual information explaining the financial numbers. (George F, 2015)

The information contained within the notes not only supplement financial statement information, but they clarify line-items that are part of the financial statements. For example, if a company lists a loss on a fixed asset impairment in their income statement, Notes to Financial Statements could serve to corroborate the reason for the impairment by providing specific information relative to how the asset became impaired. Notes to the Financial Statements are also used to explain the method of accounting used to prepare the financial statements (all publicly traded companies are required to use accrual basis accounting for financial reporting purposes as mandated by the SEC), and they provide valuations for how particular accounts have been represented. In consolidated financial statements, all subsidiaries should be listed as well as the amount of ownership (controlling interest) that the parent company has in the subsidiary companies. Any items within the financial statements that are evaluated by estimation should be part of the Notes to Financial Statements if a substantial difference exists between the amount of the estimate previously reported

and the amount of the actual results. Full disclosure of the effects of the differences between the estimate and the actual results should be in the note. (Nahar H,2016).

2.2.3. Users of Financial Statement

The persons who receive accounting reports are termed the users of financial statements. The type of information a specific user requires from the financial statements depends upon the kind of decision that that person must make. This it is said that financial statement is user oriented (Foster G. 2014).

The various user of financial statement can be grouped into two broad divisions, internal and external users. The internal users are the:

1. Management team

This is the management of the entity itself. They are concerned with the overall financial worth of the enterprise. Management has the overall responsibility to see that the resources of the firm are used most effectively and efficiently and that the firm's financial position is always sound. They need the financial statement for planning, controlling and performance on the day-to-day operations and long range (strategic) plan of the organization (Foster G. 2015).

2. Employees

Employees and trade union are more concerned about long term survival and profitability of the firm, as such its ability to pay higher wages, salaries, bonus and better working conditions (Foster G. 2016)

3. Prospective investors

Investors who wish to become shareholders of the firm are more concerned about the firm's long-run survival and earnings. They bestow more confidence in those firms that show steady growth in earnings. As such they concentrate on the analysis of the firm's present and future profitability (Foster G. 2016).

4. Trade creditor

Trade creditors like suppliers and other short-term lenders are more interested in the firm's ability to meet their claims over a very short period of time. They will confirm their analysis on the evaluation of the firm's liquidity position based on the analysis of the firm and determine the terms

and conditions of any lending (or supply) to the firm e.g. security, repayment time etc. (Foster G. 2016).

5. Suppliers

Suppliers of long-term debt would be more concerned with the firm's long-term solvency and survival. They analyze the firm's profitability over time, its ability to generate cash to be able to pay interest and repay principal and the relationship between various sources of funds (capital structure relationship). Long-term creditors do analyze the historical financial statement but they place more emphasis on the firm's projected or pro-forma financial statements to make analysis about its future solvency and profitability (Foster G. 2016).

6. Banks and other commercial banks

They study a bank's financial statements to enable them grant loans.

7. Government

They study the financial statement of a bank to enable them impose tax on profit.

8. Research institution educational

They require the accounting information for teaching and research purpose.

9. Public

Public are interested in many ways especially the economic life and the standard of living.

10. Customers

Customers who buy or subscribe for the services or goods of the firm are more concerned about the long-run survival of the firm to continue to supply goods or services (Igben, 2016).

2.2.4. Types of Financial Analysis

Two major types of financial analysis are fundamental analysis and technical analysis.

2.2.4.1. Fundamental Analysis

The fundamental analysis gives you the point of view of an organization's characteristic incentive by analyzing related economic and monetary components. Normally, analysts use this procedure to assess the main considerations that impact security's worth. Thus, fundamental analysis is a

strategy that gives you a superior conviction to recognize organizations for long haul speculation and create wealth.

Analysts lean toward this procedure to discover stocks that are presently exchanging at underestimated or exaggerated and afterwards choose an honest assessment of those stocks to help the investors in their investment choices. In this type, evidence gleaned from the financial statement is utilized to assume the company's worth.

2.2.4.2. Technical Analysis

On the other hand, in technical analysis, analysts assess the investment openings by examining past measurable things, for example, volume and cost. Technical analysts accept that the costs of the stock are bound to follow the previous pattern instead of move abnormally.

In the stock market, everything is identified with market psychology, technical analysis uses past information outlines to dissect these feelings and market changes to all the more likely comprehend patterns identified with stock. Technical analysts accept the way that history will rehash itself and we can better comprehend the occasions to contribute if we comprehend the previous examples or patterns. Technical analysis endeavors to comprehend the market emotion behind price trends by glancing for patterns and trends instead of evaluating a security's fundamental aspects.

2.2.4.3. Requirement of Financial Analysis Tools

It is significant to see how well a company is getting along and where it is going in the short and the long haul while investing in the stock market. This is the place where the tools of financial analysis come helpful. It's insufficient to pore over an organization's budget report. To sort out the numbers one must utilize the techniques of financial statements analysis to extricate significant experiences into the organization's presentation.

Though, these techniques have far broader use beyond just the stock market. So, there is the list of exciting use trials of the tools of financial analysis.

- Banks can make verdicts on the solvency of a company by using these tools.
- Corporations can use these to make industry conclusions like where to distribute resources and which group to shutter.

- Security organizations and credit rating agencies could utilize the methods of financial analysis to examine several threats.
- Auditors and regulators might use these to sniff out feasible disparities in a corporation's financial statement or even company transactions.

2.2.5. methods of financial statement Analysis

Here we will see a list of some of the methods of financial statement analysis that an investor can think of investing in a business.

1. Vertical Analysis

In this method, the factors of a business are shown in the form of a percentage of a fixed value. In this way, the percentage of all the factors can be used to determine where the business is heading. Also, this can be used to find out the relation between different factors and their effects on each other.

2. Trend Analysis

This method involves analyzing how stock markets are headed. This simply means that the stock prices will be determined beforehand. In this way, if the anticipated price is high, then it means investing will be profitable. If not, then it is a dull market.

Thus, this is one of the unique tools of financial analysis because it can be used to anticipate the effect of a range of outer factors on a stock.

3. Cash Flow Analysis

In this technique, the net income and expenses of a company are used to determine the working capital and net requirements of the business. Also, it determines the debt and expansion in the market.

4. Ratio Analysis

This method compares a particular company with its competition in the market. It simply means which other companies are of the same size and type.

These ratios include- earnings to price ratio, the net income to sales ratio, and the return on assets ratio. It can be used to determine the better company in the same industry.

5. Horizontal Analysis

Coming towards horizontal analysis, it is the most famous method of financial statement analysis. This method is generally used to identify the change in various factors of a business.

These factors include net income, sales, cost etc. The amount of change in these factors over a particular period helps in analyzing the future of any particular project or business.

2.3. Theories related to decision making

Financial decision-making plays a critical role in various domains, including personal finance, corporate finance, investment management, and risk management. Modern Portfolio Theory (MPT) has been a cornerstone in understanding investment decisions. Markowitz (2012) introduced the concept of efficient portfolios, emphasizing the importance of diversification to optimize risk-adjusted returns. According to MPT, investors seek to construct portfolios along the efficient frontier, balancing risk and return. The Capital Asset Pricing Model (CAPM), proposed by Sharpe (2014), Lintner, and Mossin, extends the understanding of asset pricing and expected returns. CAPM suggests that investors require compensation for bearing systematic risk, as measured by beta. This model provides insights into the relationship between risk and return, guiding investment decisions and portfolio construction. The above research evidenced that PMI is collecting rules and regulations related to financial statement. In this research stakeholders remarked that organization of companies related to the adequate practices in PMI affect their submission to regulation, rules and laws related to financial reporting while they did not appreciate the previous related practices.

The purpose was to treat the effect of financial statement on the effectiveness of management decision making process in Nigeria using 10 chosen key informants. In addition, 50 accountants, investment and financial analysts were required to provide responses in order to obtain relevant information. The analysis of variance was used for testing the research hypothesis and the study findings contended that financial statements disclosure, corporate fraud and scandals and financial statements transparency had a positive Impact on effective management of decision making in banking sector concerning investment in manufacturing sector in Nigeria.

Hassan (2013) carried out a research work named “Financial statements. For this research, correlation research design was used. A correlation research design was used to explain the

statistical association between two variables. The Researcher found the research design to be adequate to the research process when it has the ability to test expected correlation between variables. A longitudinal panel from secondary data was used where a quantitative approach with positivism paradigm and the core of relevant information for data analysis were appropriately obtained from financial report after auditing activities were performed. Multivariate analysis was used to assess the model while longitudinal panel helped to obtain heterogeneity from individual respondents. Results demonstrated implication of crucial policies since they proposed the necessity to stimulate the application of corporate governance principles by banks and individual stakeholders to afford monitoring of profit management in Nigeria.

Efficient Market Hypothesis (EMH), as outlined by Fama (2010), posits that financial markets efficiently incorporate all available information into asset prices. This theory suggests that it is challenging to consistently outperform the market through active management strategies, as prices reflect all relevant information instantaneously. Behavioral Finance, pioneered by Kahneman and Tversky (2009), integrates psychological insights into financial decision-making. Behavioral biases such as overconfidence, loss aversion, and herding behavior influence investor behavior and market outcomes. This field provides a deeper understanding of the limitations of rational decision-making and the importance of addressing behavioral biases in financial planning and investment management.

Real Options Theory, introduced by Dixit and Pindyck (2016), expands the traditional framework of investment analysis by incorporating flexibility and uncertainty. Real options recognize that managers have the option to adapt their strategies in response to changing market conditions, akin to financial options. This theory offers valuable insights into valuing strategic investments and assessing managerial flexibility. Agency Theory, as articulated by Jensen and Meckling (2006), examines the relationship between principals and agents in corporate governance structures. It addresses conflicts of interest and agency costs that arise when principals delegate decision-making authority to agents. Agency theory provides a framework for designing incentive mechanisms and governance structures to align the interests of stakeholders and mitigate agency problems.

2.4. Research gap

Mugisha Leonce (2015) carried out research called financial statements analysis and financial performance in Rwandan private institutions. The key objectives of the study were to find out how financial statements analysis contributes to the performance of private institutions in Rwanda.

Perception on information reported in the financial reports with respect to usefulness in the performance. He analyzed both primary and secondary data using descriptive statistics. Even if his research was very useful for Rwandan private companies, his research did not establish the relationship between financial statement analysis and performance of these companies in Rwanda using Pearson correlation coefficient and profitability indicators.

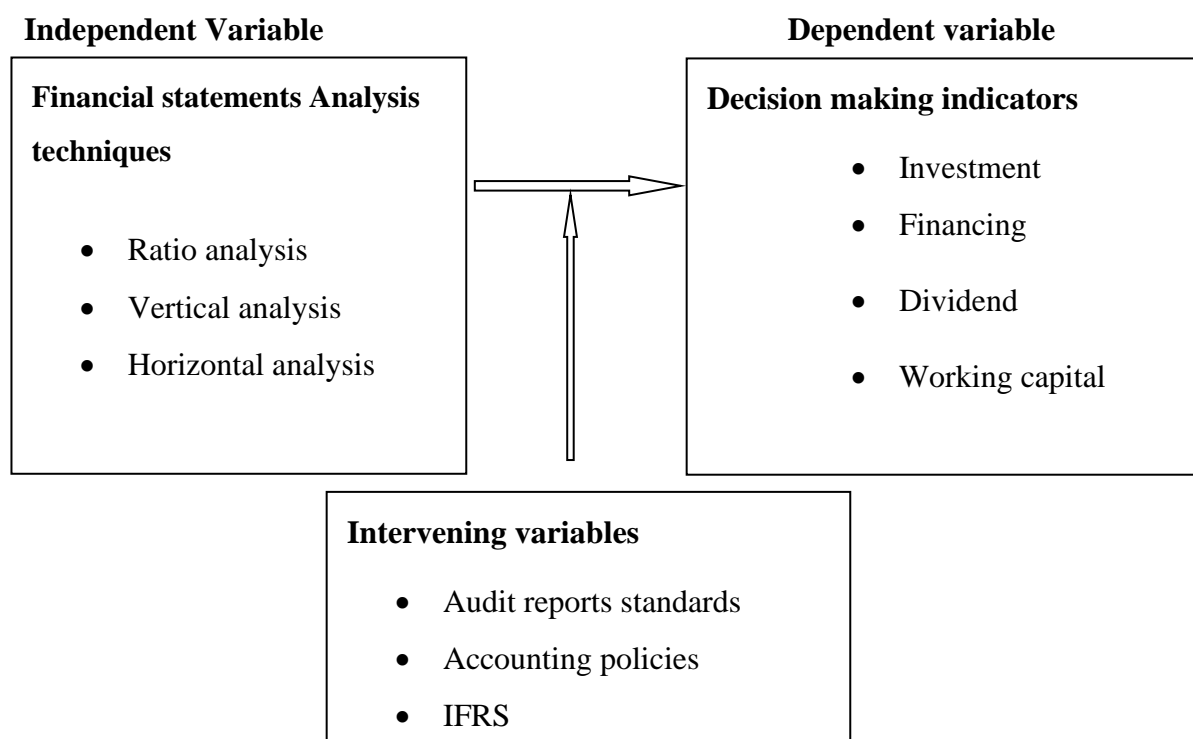
Hawariah and Dalnial (2014) conducted research called Detecting Fraudulent Financial Reporting through Financial Statement Analysis. The objective of the study was to examine the association between financial statement analysis and fraudulent financial reporting. Even though this research is very important as it plays a big role in detecting fraudulent financial reporting in business companies through financial statements analysis, it also has a gap because it didn't establish the relationship between financial statement analysis and detection of fraudulent financial reporting using Pearson correlation coefficient.

There have been various measures and research of financial statement analysis and financial performance Kothari (2014), Mabwe and Robert (2016), Ebimobwei (2015) reviewed empirical research on the relationship between financial statements and financial performance using cash flow analysis approach. The approach he adopted for the review involves a survey of the literature using purposive sampling method has been used during sampling. This research has focused on secondary data rather than primary data. Although, Kothari (2014) reviewed different literatures, he used cash flow analysis, whereby this approach is not futuristic and then the result should not be accurate in future. During their study, they used desk research and then they did not compare the performance of one company in two different consecutive periods. Thus, the researcher needs to carry out this study using ratio analysis method in analyzing financial statements. Hence, from the above critics, the researcher found a gap, whereby, the above researchers did not use ratios analysis, vertical analysis, horizontal analysis and Pearson correlation coefficient to analyze relationship between variables under study and level of performance of the company.

2.5. Conceptual Framework

This research will recognize the different factors that lead to financial statement and financial performance. These have been identified in the literature review and can be represented under the figure below.

Figure 1: Conceptual framework



Source: Researchers, 2024

dFrom the above conceptual framework it is clear that financial statement analysis as an independent variable as measured by the ratio analysis, vertical analysis and horizontal analysis affect on the financial decision making as dependent variables as measure by profitability ratios, debt-to-equity ratio, solvency ratio and liquidity ratio.

CHAPTER THREE: RESEARCH METHODOLOGY

3.0. Introduction

To obtain reliable data in research and in turn to arrive at good interpretation for effective solution to the problem being studied the research methodology was important. In this research, study on financial statement analysis and decision making of commercial banks in Rwanda, the methodology will help the researchers in dealing with the data collection and data analysis for interpretation. In this context, documentation techniques will be used in data collection from Bank of Kigali.

This chapter comprises of research design, data collection techniques and tools, validity and reliability tests, data processing, methods of data analysis, limitations and ethical consideration.

3.1. Research Design

According to Peter Odera and Okenyi, S (2006), a study design is a plan or a blue print which shows how data required for the solution of a problem that research is studying were collected and analyzed. The present research responded to the descriptive research design since data will be provided by documents and reports. Thus, it will be based on quantitative method. The research will use secondary data obtained from financial statements of Bank of Kigali/main branch.

3.2. Data Collection Techniques and Tools

In this research, only documentation as secondary data collections tools will be used.

3.2.1. Documentation

Kenneth D. Bailey (2015:266) defined documentation as the careful reading, understanding and analyzing the written documents of some purpose rather than social research. They are records of past events that are written or printed. The researchers will use documentation to analyze financial statements and financial Decision-making of Bank of Kigali in order to get secondary data that serves the achievement of study objectives.

With this method, the research inquires basing in investigations, analysis and illustration of written materials available in ULK library, electronic resources and more especially in Bank of Kigali documents and annual reports.

3.3. Validity and reliability tests

Researcher discuss about validity and reliability tests

The reliability

The reliability of a research instrument concerns the extent to which the instrument yields the same results on repeated trials. Although unreliability is always present to a certain extent, there is generally a good deal of consistency in the results of a quality instrument gathered at different times. The tendency toward consistency found in repeated measurements is referred to as reliability (Carmines and Zeller, 2014).

Validity

Validity is defined as the extent to which the instrument measures what it purports to measure (Allen and Yen, 2014). Content validity pertains to the degree which the instrument fully assesses or measure the construct of interest. The annual reports will be carefully analysed in order to get relevant data on financial statement analysis and financial decision making in Bank of Kigali. This will be done in order to enhance its validity and accuracy of data that will be collected for the study.

3.4. Data processing

This step is concerning on transforming the findings into the useful information to the users. After data collection from the annual reports, the researcher proceeds to process the data collected. The collected data will be analyzed and presented in the tables using the program Excel and SPSS 22.0 version. The data processing consists of editing, coding and tabulating.

3.4.1. Editing

According to Mc Daniel and Roger G. (2014:88) editing is the process of going through financial statements in order to get the required information or data. In this process of editing the information found must be verified to ensure that they are complete, reliable and that guidelines are followed. This is an attempt to ensure that all information provided by annual reports is required. During the editing process, much attention should be taken into consistence.

3.4.2. Coding

According to Mannheim and Rich C. (1995:98) coding contains assigning numerical standards on variables have been used in this study to summarize data by classifying different information given into categories for easy manipulation. Then the data have been coded where the numbers will be assigned to each of the information that they could be easily summarized and analyzed.

3.4.3. Tabulation

According to Claire et Al (1965:50) this step refers to the part of technical process in statistical analysis of data that involve counting cases that fall into different types. Tabulation is the last step after editing and coding which involves the analyzing and summarizing the findings in forms of statistical tables. In this study, Microsoft word 2010 and excel 2010 have been used. Thus, they will be used to summarize data by classifying the different information given into categories for easy manipulation.

3.5. Methods of data analysis

A method is a set of intellectual operations which enable to analyze, understand and explain a given reality or fact. Then it is a collection of steps which put together in a logical manner a purpose of achieving a given objective. these are the methods that use in order to reach the successful results, (GRAWITZ M, 1996).

The method of data analysis will be used by the researchers after data collection in order to make deep interpretation and understanding by using analysis methods as follow:

3.5.1 Analytical method

Analytical methods consist of analyzing in the systematical way all the information even the data collection. It was used to analyze the collected data concerned the research, (Gradwitz, 2005:482).

3.5.2. Historical method

Historical method is the process of establishing general facts and principles though attention to chronology and to the evolution or historical course of what is being studied. This method helped in analyzing and interpreting the past facts in order to understand the present ones and proposes how they will be in the future, (Bernini, 1889). According to Gradwitz (2005), it is the method which consists in analyzing the evaluation of given time or period and the event which shows that

period. It helps us to try to follow the evolution of financial statement to analyze the financial decision making in bank of Kigali.

3.5.3. Comparative method

According to KOTHARI, (2004), this method refers to the finding of similar and dissimilar element in comparison of facts. state that it enables researchers to detect other relevant causes between factors that generate similarities or different between financial statements of Bank of Kigali in covered period. This method is particularly useful while comparing current states of involvement of comparative activities around world and current practice in Rwanda in order to draw resins and development models contributing to strengthen banks activities. This method plays the role into making comparison between the information about financial statement and the financial decision making within several years in the Bank of Kigali.

3.6. Limitations of the study

Time is the second major constraint as this is limited since the researchers had many tasks (studies, jobs and researches). Nevertheless, the researchers tried to do their best so as to overcome those challenges positively. In conducting the research, the researcher will encounter a number of limitations which will limit the researcher to complete the study in the intended period of time and problems which will be encountered are discussed below.

- The process of collecting data will be very tiresome and expensive.
- Financial constraints will present a limitation where by the researcher had no package for transport, printing cost while carrying out the study.
- Literature will be another source of problem because some books were not found in the library, though efforts were made to consult few available textbooks which made the successful.

3.7. Ethical considerations

According to Jowel (2016) cited in Twizeyimana (2014, P.39) Ethical consideration in research involve outlining the content of the research and what would be required of participants, how informs consent has been obtained and confidentiality ensured.

This research will be conducted in a such way that the ethical considerations for research including informed consent, Privacy and confidentiality, risk of minimization, Limitation of deception, social and culture sensitivity research merit, conflict audience, respect for property right even data retention are taken into consideration.

CHAPTER FOUR: DATA ANALYSIS AND PRESENTATION OF FINDINGS

Introduction

This chapter is concerned with presentation of brief history of Bank of Kigali PLC, research findings and interpretation of data collected for an attempt to answer the research questions mentioned in general introduction to enable the researchers to draw a conclusion based on the study objectives such as to analyze the effectiveness of financial statements analysis in Bank of Kigali PLC and to examine the contribution of financial statements analysis to the decision making to commercial bank in Rwanda. Case study: Bank of Kigali PLC (2020-2023).

4.1. Presentation of Bank of Kigali PLC

Bank of Kigali PLC (BK) is a Rwandan commercial bank with headquarters in Kigali. The bank is the one of the commercial banks licensed by national bank of Rwanda.

4.1.1. Historical background of Bank of Kigali PLC

The Bank of Kigali was started in 1966 to provide commercial banking services to individuals, small businesses, and large corporations.

The bank was 50 percent owned by Banque Belgoise before the Government of Rwanda purchased that shareholding in 2007. Subsequently, the government sold minority shareholding to other corporate entities, including the Social Security Fund of Rwanda and the National Post Office of Rwanda.

The Bank of Kigali is the largest commercial bank in Rwanda by assets. As of December 2015, its total assets were valued at US\$774.1 million (RWF: 568.4 billion).

In December 2014, the shareholders' equity stood at approximately US\$130.73 million (RWF: 89.55 billion). In 2010, the bank was ranked among the top fifteen commercial banks in East Africa.

In 2011, there were plans for the government to divest more of its ownership in the bank by floating 25 percent shareholding on the Rwanda Stock Exchange (RSE). On 21 June 2011, the Rwandan Capital Market Advisory Council approved plans for the bank to float 45 percent of its shares on the RSE and list its shares on the RSE. Trading in the shares of the bank started on 30 June 2011.

In December 2012, regional media reports indicated that the bank was in the middle of an expansion into neighboring Uganda. In February 2013; the bank received regulatory approval to open an office in Kenya.

In the year 2012: Recognized as the best East African Bank 2012 at the 6th Annual African Banker Awards.

Recognized as the Best Bank in Rwanda by microfinance and Bank of the Year 2012 (Rwanda) by The Banker for the fourth consecutive year.

Named Best Financial Reporting Bank in Rwanda at the FIRE Awards organized by the Nairobi Stock Exchange.

Received Best African Listing Award at the African Investor (Ai) Index Series Awards

Launches Express Money Service (www.bk.rw consulted on 2/July/2018)

In the year 2013: BK has made great strides in extending its footprint through the market-leading BK Yacu agency banking effort, introduced the innovative Mobibank mobile van branches to the Rwandans and had the honor of being chosen as the global pilot partner bank of VISA for the launch of its mVISA wallet. Due to these and other initiatives aimed at improving our channels and increasing the efficiency of our service delivery, I am pleased to report that, in our estimates, your bank is currently capable of serving more than 500,000 clients. BK cannot, of course, rest on its laurels, as the “if we build it, they will come” story is unfolding in front of its eyes, with your Bank serving 259,995 clients as at the year-end 2013 (compared to 206,247 at the end of 2012), and the process of attracting new, previously unbanked, clients appear to be gaining momentum. BK thank each and every one of our clients for their trust and loyalty and promise never to take them for granted or provide them the service of a lesser quality than it is capable of at any given point in time.

In the year 2014: Bank of Kigali aspires to be the leading provider of the most innovative financial solutions in the region. We are a customer focused bank. Understanding the needs of our customers and finding innovative ways to meet those needs is our priority. As a result, our customers have been loyal to us which has enabled us to maintain our leadership position of 33.7% market share by total assets as at 31st December 2014.

In the year 2015: Bank of Kigali highly successful year for the Bank and for our shareholders. The Bank continues to enjoy impressive and sustainable growth. Financial performance showed a strong net income of Rwf 20.5 billion an increase of 11.8% over the previous year. Our total assets grew by 16.3% year on year and our shareholders' equity grew by 10.8% since the prior year 2014. Our high profitability remained intact, with ROA and ROE of 3.9% and 21.7%, respectively

In the year 2016: The Bank's profit after tax increased to Rwf 20.5 billion from Rwf 18.3 billion in 2014, reflecting a Return on Average Equity of 21.7%. The Bank's total assets also rose to Rwf 561.2 billion from Rwf 482.6 billion, representing a growth of 16.3% year on year. This growth resulted from the continued investment distribution channels, strong liquidity position and strong credit book growth.

In the year 2017: The Bank offers loans to its employees at an interest rate at a range of 7.5% and 16.0% (2016: 7.5% and 16.0%). The Bank closely monitors the loans to ensure they are performing. As at the end of year, there were no non performing staff loans.

4.1.2. The ownership of the bank's stock

Table 1: The ownership of the Bank of Kigali PLC

Rank	Name of Owner	Percentage Ownership
1	Government of Rwanda	29.6%
2	Social Security Fund of Rwanda	25.1%
3	International institutional investors	16.4%
4	Retail investors	12.2%
5	Local institutional investors	8.8%
6	Regional institutional investors	6.2%
7	Employees and directors	1.6%
8	Other state-owned entities	0.10%
	Total	100.00%

Source: Bank of Kigali, annual report

4.1.3. Bank of Kigali mission, vision, motor, values and objectives.

Here, researcher discuss about mission, motto, visions, values and objectives

4.1.3.1. Bank of Kigali mission

The mission of bank of Kigali is to be the leader in creating values for their stockholders by providing the best financial services to business and individual customers through motivated and professional staff (BK Ltd report, 2016).

Is still in line with the original strategy of its founding banks bank of Kigali is provide a full range of financial services in the urban and the rural areas in way historically based on cooperatives characteristics specially emphasis will be on providing a wide range of financial services to farmers, agribusiness enterprise, private individual and micro as well as SME types (BK Ltd report, 2016).

4.1.3.2. Motto

Bank of Kigali motto bank of Kigali financially transforming lives.

4.1.3.3. Bank of Kigali vision

Bank of Kigali inspires to the leading to be leading provider of most innovative financial solution in the original.

4.1.3.4. Bank of Kigali values

- Customer
- Integrity
- Quality
- Excellently

The way in which bank of Kigali wishes to position itself is largely governed by four mains:

Teamwork: the best solution from together with colleagues and clients. Effective team requires open relationship, respect and sharing.

Respect: Bank of Kigali embraces diverse cultures, communities and views. BK actively consider the needs of individuals and work life quality. BK treats people and the environment with respect.

4.1.3.5. Objectives of bank of Kigali

According to BK Ltd annual report (2016) the bank of Kigali objective are follows us:

- To develop popular saving and credit culture
- To promotes social and economic welfare of its members, their families and the whole

These strategies can be achieved through the following strategies:

- To provide members with the ability of lacing funds in the conditions ascertained by rules and regulation of servings
- To offer members credits to catering their economic needs these credits will be recovered based
- On term fixed by the contract credit under credits policy of bank of Kigali ltd
- To assist people with low income in honest way to become members of bank of Kigali.
- To promotes self-employment by creating spirit of creativity and initiative through efficient usage of credits and saving from regional resources.
- To sensitize people in respecting the responsibilities and mutual economic operations
- To facilitate low section of the society, for accessing to the financial resources (BK Ltd annual report, 2015).

4.2. Effectiveness of the financial statements analysis by Bank of Kigali PLC

Financial statement allows analysts to identify horizontal and common size (vertical) analysis and ratio used in financial statements. Financial statement is one of the most important steps in measuring financial performance of a business. Financial analysis is a crucial procedure for any business. Though it is often a long, involved and detailed process, it tells the story of a business's financial standing and helps business owners, executive teams, investors, and other stakeholders understand both the problems and the possibilities.

4.2.1. Methods for financial statements analysis in Bank of Kigali PLC

Various tools are used to evaluate the significance of financial statement data. Three commonly used tools are these:

1. **Horizontal analysis or trend analysis**, evaluates a series of financial statement data over a period of time.
2. **Common size analysis or Vertical analysis** evaluates financial statement data by expressing each item in a financial statement as a percent of a base amount.
3. **Ratio analysis** expresses the relationship among selected items of financial statement data.

Horizontal analysis is used primarily in intracompany comparisons. Two features in published financial statements facilitate this type of comparison. First, each of the basic financial statements is presented on a comparative basis for a minimum of two years. Second, a summary of selected financial data is presented for a series of five to ten years or more. Vertical analysis is used in both intra- and intercompany comparisons. Ratio analysis is used in all three types of comparisons.

4.2.1.1. Common size analysis or Vertical analysis

Common-size analysis converts each line of financial statement data to an easily comparable amount measured as a percent. Comprehensive Income items are stated as a percent of net interest income and financial position items are stated as a percent of total assets (or total liabilities and shareholders' equity).

1. Common size analysis of comprehensive income

Common size analysis, also referred as vertical analysis, is a tool that financial managers use to analyze financial statements. It evaluates financial statements by expressing each line item as a percentage of the base amount for that period. The analysis helps to understand the impact of each item in the financial statement and its contribution to the resulting figure.

Common size analysis comprehensive income

$$\text{Common size analysis comprehensive income} = \frac{\text{Items}}{\text{Interest income}} \times 100$$

Table 2: Bank of Kigali PLC Common size analysis of comprehensive income from 2021 to 2023 in Rwf'000

Years	2021	(%)	2022	(%)	2023	(%)
Interest income	176,572,535	100%	187,448,813	100.00%	216,837,693	100.00%
Interest expense	(40,301,177)	(22.80%)	(49,673,037)	(26.50%)	(51,452,655)	(23.73%)
Net Interest income	136,271,358	77.90%	137,775,776	73.50%	165,385,038	76.27%
Fee and Commission income	21,824,949	11.20%	29,167,427	58.72%	43,288,034	19.96%
Fee and commission expense	(1,965,524)	(1.11%)	(2,894,123)	(1.54%)	(3,726,771)	(1.72%)
Fee and commission expense	(1,965,524)	(1.11%)	(2,894,123)	(1.54%)	(3,726,771)	(1.72%)
Foreign Exchange gains	11,779,561	6.70%	13,529,522	7.22%	13,878,201	6.40%
Insurance revenue	0	0	0	0.00%	12430634	5.73%
Insurance service expenses	0	0	0	0.00%	(9163399)	(4.23%)
Net insurance finance expenses	0	0	0	0.00%	(90190)	(0.09%)
Net expenses from reinsurance contract held	0	0	0	0.00%	(944004)	(0.44%)
Gross insurance premium	10,140,525	5.70%	11,581,822	6.18%	0	0.00%
Other Operating Income	2,170,394	102.10%	1,838,818	0.98%	3,404,471	2.06%
Operating income before impairment losses and claims	180,221,263	102.10%	181,532,398	96.84%	224,362,014	518.30%

Credit Impairment Losses- loans	(34,068,752)	(19.3)	(10,006,879)	(5.34%)	(18,606,589)	(499.27%)
Premium ceded to reinsurance	(2,694,984)	(1.50%)	(3,744,871)	(2.00%)	0	0.00%
Insurance benefits and claims paid	(3,359,441)	(1.90%)	(3,247,645)	(1.73%)	0	0.00%
Net Operating Income	140,098,086	79.30%	174,248,700	92.96%	205,755,425	1655.23%
Employee benefits expense	(31,333,019)	(17.70%)	(33,386,960)	(17.81%)	42,826,475	467.36%)
Depreciation and Amortization	(6,543,090)	(3.70%)	(8,285,599)	(4.42%)	10,245,958	5387.22 %
Administration and general expenses	(25,153,532)	(14.20%)	(41,154,923)	(21.96%)	42,865,172	4540.78 %
Total Operating Expenses	(63,029,641)	(54.10%)	(82,827,482)	(44.19%)	(95,937,605)	(44.24%)
Operating profit	77,068,445	43.60%	88,698,037	47.32%	109,817,820	3225.69%
Interest on lease liabilities	(187,777)	(0.11%)	(111,769)	(0.06%)	(105,900)	(0.05%)
Profit before income tax	76,880,668	43.50%	88,586,268	47.26%	109,711,920	589.64%
Income tax Expenses	(24,985,698)	(14.20%)	(28,730,466)	(15.33%)	(34,894,241)	(16.09%)
Profit for the year	51,894,970	29.40%	59,855,802	31.93%	74,817,679	34.50%

Source: Bank of Kigali PLC financial statements, 2021- 2023

The common size comprehensive income is a technique used by business to evaluate the proportional change of items in their financial statements. The table 2 shows the common size analysis of the comprehensive income for Bank of Kigali PLC from 2021 to 2023.

Net Interest Income as a percentage of total interest income shows a slight decrease from 77.90% in 2021 to 73.50% in 2022, then a recovery to 76.27% in 2023. This indicates that while the bank's core banking operations remained strong, there were fluctuations in how much of the interest

income translated into net interest income. Operating Income Before Impairment Losses and Claims remained robust, although there was a minor decrease from 102.10% in 2021 to 96.84% in 2022, followed by a significant jump to 518.30% in 2023. This substantial increase in 2023 indicates exceptional operational performance and efficiency.

Net Operating Income showed a steady increase, growing from 79.30% in 2021 to 92.96% in 2022, and then surging to 1655.23% in 2023. This dramatic rise suggests that the bank significantly improved its profitability, even after accounting for operating expenses and impairment losses. Total Operating Expenses as a percentage of total income decreased from 54.10% in 2021 to 44.19% in 2022, and remained stable at 44.24% in 2023. This indicates effective cost management and a consistent control over operating expenses relative to income.

Operating Profit increased steadily, from 43.60% in 2021 to 47.32% in 2022, and then to a remarkable 3225.69% in 2023. This indicates a strong improvement in the bank's profitability from its core operations. Profit Before Income Tax followed a similar trend, increasing from 43.50% in 2021 to 47.26% in 2022, and then soaring to 589.64% in 2023. This further emphasizes the bank's significant profitability growth before accounting for tax expenses. Profit for the Year also showed steady growth, from 29.40% in 2021 to 31.93% in 2022, and reaching 34.50% in 2023. This indicates a healthy bottom line and the bank's success in converting its revenues into net profit after all expenses and taxes. The common size analysis highlights Bank of Kigali PLC's improving financial health and efficiency in generating and managing income, expenses, and profits over the three-year period.

2. Common size analysis of financial position

The financial position common size analysis mostly uses the total assets value as the base value. On the financial position, the total assets value equals the value of total liabilities and shareholders' equity. A financial manager or investor uses the common size analysis to see how a firm's capital structure compares to rivals. They can make important observations by analyzing specific line items in relation to the total assets.

$$\text{Common size analysis financial position} = \frac{\text{Each item}}{\text{Total Assets}} \times 100$$

**Table 3: Bank of Kigali PLC common size analysis of financial position from 2021 to 2023
in Rwf' 000**

Years	2021		2022		2023	
ASSETS		(%)		(%)		(%)
Cash In Hand	21,723,165	1.4%	21,757,316	1.2%	30,615,453	1.4%
Balances with the National Bank of Rwanda	231,758,146	14.6%	328,750,207	17.7%	305,656,016	14.4%
Due from Banks	77,839,613	4.9%	48,979,707	2.6%	251,404,182	11.9%
Investment securities at amortized cost	164,115,134	10.3%	216,899,036	11.7%	186,541,766	8.8%
Investment in corporate bond	12,703,795	0.8%	12,069,536	0.7%	18,531,463	0.9%
Investment in specialized fund	7,814,784	0.5%	12,605,141	0.7%	13,255,670	0.6%
Loans and Advances to Customers	990,267,321	62.3%	1,134,512,318	61.2%	1,244,843,264	58.7%
Insurance contract assets	4,590,192	0.3%	3,092,783	0.2%	5,111,545	0.2%
Reinsurance contract	1,901,532	0.1%	2,203,173	0.1%	2,515,513	0.1%
Others Assets	25,810,132	1.6%	19,111,508	1.0%	12,552,527	0.6%
Deferred income tax	9,546,653	1.6%	10,647,966	0.6%	4,734,412	0.2%
Right of use assets	1,659,359	0.1%	1,760,557	0.1%	1,152,743	0.1%
Assets classified as held for Sale	734,678	0.0%	566,145	0.0%	566,145	0.0%
Property And Equipment	29,608,750	1.9%	30,057,613	1.6%	32,352,686	1.5%
Intangible Assets	10,273,785	0.6%	10,494,510	0.6%	10,282,757	0.5%
Total Assets	1,590,372,983	100.0%	1,853,507,516	100.0%	2,120,116,142	100.0%
Liabilities & Stockholders' Equity						
Due To Banks	190,223,687	12.0%	280,588,198	15.1%	195,184,606	9.2%
Deposits and Balance from Customers	974,494,626	61.3%	1,075,188,572	58.0%	1,374,342,881	64.8%
Income tax payable	10,013,864	97.5%	5,920,034	0.3%	1,079,716	0.1%
Dividends Payable	26,928,781	1.7%	30,704,511	1.7%	23,145,719	1.1%
Insurance Contract liabilities	9,445,233	0.6%	7,813,869	0.4%	10,944,628	0.5%
Creditors arising from reinsurance	1,235,766	0.1%	931,761	0.1%	1,026,489	0.0%
Other liabilities	35,470,426	2.2%	28,611,890	1.5%	42,658,933	2.0%
Lease liabilities	2,069,256	0.1%	1,787,992	0.1%	1,653,690	0.1%
Long-term finance	56,026,996	3.5%	102,718,352	5.5%	103,722,062	4.9%

Total Liabilities	1,304,672,869	82.0%	1,534,265,179	82.8%	1,753,758,724	82.7%
Capital and Reserves						
Share Capital	9,045,474	0.6%	9,185,147	0.5%	9,281,625	0.4%
Share Premium	76,573,491	4.8%	79,953,617	4.3%	82,423,448	3.9%
Revaluation reserves	13,099,993	0.8%	13,099,993	0.7%	13,099,993	0.6%
Statutory reserves	2,321,973	0.1%	2,321,973	0.1%	2,321,973	0.1%
Retained Earnings	181,990,759	11.4%	211,133,499	11.4%	254,971,032	12.0%
Equity attributable to the owners of the parent	283,031,691	17.8%	315,694,229	17.0%	362,098,071	17.1%
Non-controlling interests	2,668,423	0.2%	3,548,108	0.2%	4,259,347	0.2%
Total Equity	285,700,114	18.0%	319,242,337	17.2%	366,357,418	17.3%
Total Liabilities and Equity	1,590,372,983	100.0%	1,853,507,516	100.0%	2,120,116,142	100.0%

Source: Bank of Kigali financial statements, 2021- 2023

The table 3 shows the common size analysis of financial position which is a technique used by the Bank of Kigali to evaluate the percentage change in the individual asset, liability, and stockholders 'equity items. The base for the asset items is total assets. The base for the liability and equity items is total liabilities and equity. The common size analysis of the financial position of Bank of Kigali PLC from 2021 to 2023 shows that Cash in hand remained relatively stable, accounting for 1.4% of total assets in both 2021 and 2023, with a slight decrease to 1.2% in 2022. This indicates a consistent approach to maintaining liquid assets. Loans and advances to customers, the largest component of the bank's asset base, constituted 62.3% of total assets in 2021, slightly decreasing to 61.2% in 2022 and further to 58.7% in 2023. Despite this decline, loans and advances remained the dominant asset category, emphasizing the bank's continued focus on lending activities.

Total liabilities represented 82.0% of total assets in 2021, increased to 82.8% in 2022, and then slightly decreased to 82.7% in 2023. This high level of liabilities relative to total assets underscores the bank's reliance on borrowed funds to finance its operations. The equity attributable to the owners of the parent was 17.8% of total assets in 2021, decreased slightly to 17.0% in 2022, and marginally increased to 17.1% in 2023. This stability indicates the bank's ability to maintain a consistent equity base despite changes in assets and liabilities.

Total equity, including non-controlling interests, accounted for 18.0% of total assets in 2021, decreased to 17.2% in 2022, and slightly increased to 17.3% in 2023. The consistency in total equity as a percentage of total assets suggests that the bank has effectively managed to preserve its equity proportion while expanding its asset base.

This analysis highlights the bank's stable liquidity position, strong focus on lending, high reliance on liabilities, and consistent equity management and these results show that Bank of Kigali/main branch analyze its financial statements effectively.

4.2.1.2. Horizontal analysis of financial statements in Bank of Kigali PLC

Horizontal analysis, also called **trend analysis**, is a technique for evaluating a series of financial statement data over a period of time. Its purpose is to determine the increase or decrease that has taken place. This change may be expressed as either an amount or a percentage. (J. Finch 2015)

$$\text{Change since base Period} = \frac{\text{Current Year Amount} - \text{Base Year Amount}}{\text{Base Year Amount}}$$

In this section, researcher analyzed the trend on asset of Bank of Kigali Plc. To effectively analyze this, researcher categorized these assets into two main categories current assets and fixed assets. And then come with the comparison of the total of all them. Therefore, results are presented below.

1. Trend analysis of assets

This is very important in financial analysis because it help company to see how bank assets have grown over time.

Table 3. Trend Analysis of Assets

		2021	2022	2023
Current Assets	Value	33,903,203	39,476,144	41,853,000
	Trend rate	100	16.44	4.15
Fixed Assets	Value	88,979,360	92,264,171	92,948,000
	Trend rate	100	3.69	6.18

Total Assets	Value	122,882,563	131,740,315	134,801,000
	Trend rate	100	7.21	5.54

Source: Financial statements of Bank of Kigali Plc, 2021-2023

For analyzing the trend of assets over the period from 2021 - 2023, only the most important segments were considered. They were Fixed Assets, Current Assets and Total Assets. From the table above, there was a significant increase of assets from the base year to the following year (2021). Fixed assets increased to about 3.69% more than base year levels. Current assets on the other hand, increased by 16.44%. This caused an overall increase of total assets about 7.21 percentage points above current year levels.

In 2023, the amount of current assets increased less than that in the previous year where current assets increased by 4.15%; fixed asset increased by 6.18% which automatically cause the overall increase of total assets of 5.54% compared to the previous year.

2. Trend analysis of equity and liability

Normally equity and liabilities are very important source to finance company's activities and trend in each of them is meaning full in company's financial position. The increase liability at high rate compared to that of equity shows that company depend on liabilities. And vice versa. Therefore the table bellow show it situation in Bank of Kigali Plc.

Table 4. 1.Trend Analysis of Equity and Liability in percentages

		2021	2022	2023
Equity	Value	35,383,213	31,638,250	39,077,000
	Trend rate	100	-10.58	9.49
Liabilities	Value	87,499,350	100,102,065	95,724,000
	Trend rate	100	14.4	4.05
Total (Equity + Liabilities)	Value	122,882,563	131,740,315	134,801,000
	Trend rate	100	7.21	5.54

Source: Financial statements of Bank of Kigali Plc, 2021-2023

As with assets, the same years are used and only the most significant items are represented. For 2022, there was a decrease of 10.58% in equity compared to the base year levels. However on the other side liability increased by 14.4% which automatically lead to the increase in total equity and liability. And this is not good because the more company depends on liabilities is the more risk of fail in paying back loans and maintaining the sustainability of your company.

In 2023, there was an increase in both equity and liability. Equity was increased by 9.49% and liability increased by 4.05% and as it mentioned on the results presented above, this goes hand in hand with total equity and liabilities. Briefly, the above results clearly demonstrate that financial situation of the bank understudy is in good position because in almost all the years of the covered period its equity vary positively except in 2022. And this shows the effectiveness in use of both equity and Liabilities. In the interview researchers realized Bank of Kigali Plc suffer a decrease in equity in 2022 due to how company invested part of equity in replacing asset with the main purpose of reinforcing capacity of the company's production.

3. Horizontal analysis of comprehensive income of Bank of Kigali PLC

Horizontal analysis evaluates an organization's financial information over a period of time. Periods may be measured in months, quarters, or years, depending on the circumstances. The goal is to calculate and analyze the amount change and percent change from one period to the next.

Table 5: Bank of Kigali PLC trend analysis comprehensive income from 2021 to 2023 in Rwf'000

Years	2021	(%)	2022	(%)	2023	(%)
Interest income	176,572,535	100	187,448,813	0.06	216,837,693	0.23
Interest expense	(40,301,177)	100	(49,673,037)	0.23	(51,452,655)	0.28
Net Interest income	136,271,358	100	137,775,776	0.01	165,385,038	0.21
Fee and Commission income	21,824,949	100	29,167,427	0.34	43,288,034	0.98
Fee and commission expense	(1,965,524)	100	(2,894,123)	(0.47)	(3,726,77)	0.90
Fee and commission expense	(1,965,524)	100	(2,894,123)	0.47	(3,726,771)	0.90

Foreign Exchange gains	11,779,561	100	13,529,522	0.15	13,878,201	0.18
Insurance revenue	0	100	0		12430634	-
Insurance service expenses	0	100	0		-9163399	-
Net insurance finance expenses	0	100	0		-190190	-
Net expenses from reinsurance contract held	0	100	0		(944004)	-
Gross insurance premium	10,140,525	100	11,581,822	0.14	0	(1.00)
Other Operating Income	2,170,394	100	1,838,818	(0.15)	3,404,471	0.57
Operating income before impairment losses and claims	180,221,263	100	181,532,398	0.01	224,362,014	0.24
Credit Impairment Losses- loans	(34,068,752)	100	(10,006,879)	(0.71)	-18,606,589	(0.45)
Premium ceded to reinsurance	(2,694,984)	100	(3,744,871)	0.39	0	(1.00)
Insurance benefits and claims paid	(3,359,441)	100	(3,247,645)	(0.03)	0	(1.00)
Net Operating Income	140,098,086	100	174,248,700	0.24	205,755,425	0.47
Employee benefits expense	(31,333,019)	100	(33,386,960)	0.07	(42,826,475)	0.37
Depreciation and Amortization	(6,543,090)	100	(8,285,599)	0.27	(10,245,958)	0.57
Administration and general expenses	(25,153,532)	100	(41,154,923)	0.64	(42,865,172)	0.70
Total Operating Expenses	(63,029,641)	100	(82,827,482)	0.31	(95,937,605)	0.52
Operating profit	77,068,445	100	88,698,037	0.15	109,817,820	0.42
Interest on lease liabilities	(187,777)	100	(111,769)	(0.40)	(105,900)	(0.44)
Profit before income tax	76,880,668	100	88,586,268	0.15	109,711,920	0.43
Income tax Expenses	(24,985,698)	100	(28,730,46)	0.15	-34,894,241	0.40
Profit for the year	51,894,970	100	59,855,802	0.15	74,817,679	0.44

Source: Bank of Kigali PLC financial statements, 2021- 2023

From the table 4, The trend analysis of Bank of Kigali PLC's comprehensive income from 2021 to 2023 reveals significant insights into the bank's financial performance. Interest income increased steadily from Rwf 176,572,535 in 2021 to Rwf 216,837,693 in 2023, showing consistent growth in the bank's core revenue streams. Net interest income also demonstrated stability, rising slightly from Rwf 136,271,358 in 2021 to Rwf 165,385,038 in 2023, indicating improved profitability from lending and deposit-taking activities.

Operating income before impairment losses and claims remained stable, increasing marginally from Rwf 180,221,263 in 2021 to Rwf 224,362,014 in 2023, reflecting strong operational performance. Net operating income saw substantial growth, rising from Rwf 140,098,086 in 2021 to Rwf 205,755,425 in 2023, highlighting enhanced efficiency and profitability after accounting for operating expenses and impairments. However, total operating expenses rose significantly from Rwf 63,029,641 in 2021 to Rwf 95,937,605 in 2023, indicating growing operational costs. Despite this, operating profit improved consistently, increasing from Rwf 77,068,445 in 2021 to Rwf 109,817,820 in 2023, demonstrating the bank's ability to generate profit from its core operations. Profit before income tax also showed strong growth, rising from Rwf 76,880,668 in 2021 to Rwf 109,711,920 in 2023, indicating robust overall financial performance before tax considerations. Consequently, the profit for the year grew from Rwf 51,894,970 in 2021 to Rwf 74,817,679 in 2023, reflecting the bank's strong net profitability and effective management of income and expenses.

The trend analysis underscores Bank of Kigali PLC's consistent growth in interest and net interest income, stable operating income, and substantial increases in net operating income and profits, despite rising operating expenses. This indicates a solid financial performance and improved profitability over the three-year period. The horizontal or trend analysis of income statement has shown that Bank of Kigali PLC analyze effectively its financial statements which shows that Bank of Kigali increases the interest and Similar income in order to cover the operating expenses and increase the operating income.

4. Horizontal analysis of financial position in Bank of Kigali PLC

Horizontal analysis financial position calculates the percentage change for one account over a period of time of two years or more

Horizontal analysis financial position or

$$\text{Trend analysis of financial position} = \frac{\text{Current Year Amount}}{\text{Base Year Amount}} \times 100$$

Table 4: Bank of Kigali PLC trend analysis financial position from 2021 to 2023 in Rwf'

000

Years	2021		2022		2023	
ASSETS		(%)		(%)		(%)
Cash In Hand	21,723,165	100	21,757,316	100.2%	30,615,453	140.9%
Balances with the National Bank of Rwanda	231,758,146	100	328,750,207	141.9%	305,656,016	131.9%
Due from Banks	77,839,613	100	48,979,707	62.9%	251,404,182	323.0%
Investment securities at amortized cost	164,115,134	100	216,899,036	132.2%	186,541,766	113.7%
Investment in corporate bond	12,703,795	100	12,069,536	95.0%	18,531,463	145.9%
Investment in specialized fund	7,814,784	100	12,605,141	161.3%	13,255,670	169.6%
Loans and Advances to Customers	990,267,321	100	1,134,512,318	114.6%	1,244,843,264	125.7%
Insurance contract assets	4,590,192	100	3,092,783	67.4%	5,111,545	111.4%
Reinsurance contract	1,901,532	100	2,203,173	115.9%	2,515,513	132.3%
Others Assets	25,810,132	100	19,111,508	74.0%	12,552,527	48.6%
Deferred income tax	9,546,653	100	10,647,966	111.5%	4,734,412	49.6%
Right of use assets	1,659,359	100	1,760,557	106.1%	1,152,743	69.5%
Assets classified as held for Sale	734,678	100	566,145	77.1%	566,145	77.1%
Property And Equipment	29,608,750	100	30,057,613	101.5%	32,352,686	109.3%
Intangible Assets	10,273,785	100	10,494,510	102.1%	10,282,757	100.1%
Total Assets	1,590,372,983	100	1,853,507,516	116.5%	2,120,116,142	133.3%
Liabilities & Stockholders' Equity						
Due To Banks	190,223,687	100	280,588,198	147.5%	195,184,606	102.6%
Deposits and Balance from Customers	974,494,626	100	1,075,188,572	110.3%	1,374,342,881	141.0%
Income tax payable	10,013,864	100	5,920,034	59.1%	1,079,716	10.8%

Dividends Payable	26,928,781	100	30,704,511	114.0%	23,145,719	86.0%
Insurance Contract liabilities	9,445,233	100	7,813,869	82.7%	10,944,628	115.9%
Creditors arising from reinsurance	1,235,766	100	931,761	75.4%	1,026,489	83.1%
Other liabilities	35,470,426	100	28,611,890	80.7%	42,658,933	120.3%
Lease liabilities	2,069,256	100	1,787,992	86.4%	1,653,690	79.9%
Long-term finance	56,026,996	100	102,718,352	183.3%	103,722,062	185.1%
Total Liabilities	1,304,672,869	100	1,534,265,179	117.6%	1,753,758,724	134.4%
Capital and Reserves						
Share Capital	9,045,474	100	9,185,147	101.5%	9,281,625	102.6%
Share Premium	76,573,491	100	79,953,617	104.4%	82,423,448	107.6%
Revaluation reserves	13,099,993	100	13,099,993	100.0%	13,099,993	100.0%
Statutory reserves	2,321,973	100	2,321,973	100.0%	2,321,973	100.0%
Retained Earnings	181,990,759	100	211,133,499	116.0%	254,971,032	140.1%
Equity attributable to the owners of the parent	283,031,691	100	315,694,229	111.5%	362,098,071	127.9%
Non-controlling interests	2,668,423	100	3,548,108	133.0%	4,259,347	159.6%
Total Equity	285,700,114	100	319,242,337	111.7%	366,357,418	128.2%
Total Liabilities and Equity	1,590,372,983	100	1,853,507,516	116.5%	2,120,116,142	133.3%

Source: Bank of Kigali financial statements, 2021- 2023

The trend analysis of Bank of Kigali PLC's financial position from 2021 to 2023 reveals significant growth and changes in both assets and liabilities. Cash in hand increased substantially, from Rwf 21,723,165 in 2021 to Rwf 30,615,453 in 2023, reflecting a 40.9% improvement in liquidity. Balances with the National Bank of Rwanda rose by 31.9%, from Rwf 231,758,146 in 2021 to Rwf 305,656,016 in 2023, indicating higher reserves. A notable increase was observed in due from banks, which surged by 223%, from Rwf 77,839,613 in 2021 to Rwf 251,404,182 in 2023, highlighting increased interbank activities. Investment securities at amortized cost also grew by 13.7%, from Rwf 164,115,134 in 2021 to Rwf 186,541,766 in 2023. The loans and advances to customers' category saw a significant increase of 25.7%, rising from Rwf 990,267,321 in 2021 to Rwf 1,244,843,264 in 2023, indicating an expansion in lending activities. Total assets grew by 33.3%, from Rwf 1,590,372,983 in 2021 to Rwf 2,120,116,142 in 2023, reflecting substantial growth in the bank's asset base.

On the liabilities side, due to banks showed a slight increase of 2.6%, from Rwf 190,223,687 in 2021 to Rwf 195,184,606 in 2023. Deposits and balance from customers rose significantly by

41.0%, from Rwf 974,494,626 in 2021 to Rwf 1,374,342,881 in 2023, indicating strong growth in customer deposits. Long-term finance experienced a dramatic increase of 85.1%, from Rwf 56,026,996 in 2021 to Rwf 103,722,062 in 2023, suggesting a substantial rise in long-term borrowings. Total liabilities increased by 34.4%, from Rwf 1,304,672,869 in 2021 to Rwf 1,753,758,724 in 2023, reflecting overall growth in the bank's liabilities.

In terms of equity, share capital saw a minor increase of 2.6%, from Rwf 9,045,474 in 2021 to Rwf 9,281,625 in 2023. Retained earnings grew significantly by 40.1%, from Rwf 181,990,759 in 2021 to Rwf 254,971,032 in 2023, indicating accumulated profits. Equity attributable to the owners of the parent increased by 27.9%, from Rwf 283,031,691 in 2021 to Rwf 362,098,071 in 2023, reflecting an overall increase in shareholder equity. Total equity grew by 28.2%, from Rwf 285,700,114 in 2021 to Rwf 366,357,418 in 2023, highlighting an improved financial position and capital base for the bank.

The trend analysis indicates substantial growth in Bank of Kigali PLC's financial position over the three-year period, with significant increases in both assets and liabilities, and a strengthened equity position driven by increased retained earnings and shareholder equity. All these results show that Bank of Kigali/main branch analyze its financial statements effectively.

4.2.2. Decisions taken in BK Ltd based on financial statements analysis

In this section, the researcher given their views on how financial statements analysis contributes to decisions made by the management and the board of BK Ltd. Based on the collected data from Bank of Kigali Annual Report 2023, the decisions taken by BK Ltd management based on the information or the analysis of financial statements are marketing campaigns, investment in long-term assets and research and development programs

Based on the collected data from Bank of Kigali Annual Report 2023, the information got from financial statements analysis enabled BK Ltd to conduct marketing campaigns (different advertisement on Radio and TV). Financial statements analysis enabled BK Ltd to invest in long-term assets for example BK Ltd invested in the production of bottles of soft drinks and investment in agriculture activities to boost the production of beers. The information got from financial

statements analyzed facilitated the research and development programs. These decisions have a significant bearing on how capital is allocated in the organization.

Investment decisions in bank of Kigali plc involve the allocation of resources to long-term assets to create capacity to produce the required goods and services. This is the important decision because it involves present commitment of funds in anticipation of future returns, which can't be predicted with certainty because of uncertainty investment decision, are risk decision which must be carefully appraised in terms of risks and returns.

With the financial statement analysis, bank of Kigali plc decide on the investment projects it wants to undertake. It has to figure out ways and means of financing them. Financial statements analysis enables BK Ltd to make financing decision which involves decisions about where, how, what, and when to acquire funds to meet the bank's investment needs. The financing decision involves determining the appropriate mix of debts and owner's funds. This is important in order to maximize the objective of BK Ltd since the use of debts affect the returns and risk of the shareholders the proper balance should be struck between the risk and returns of shareholders.

Financial statements analysis enables BK Ltd to make working capital management decision which refers to as short-term financial management or the day to day financial activities that deal with current assets and current liabilities. The key issues that BK Ltd focuses on in making decisions on working capital management are: what is the amount of credit to be offered to customers and, if so, on what terms? How much cash should the bank carry on hand? Where should the bank invest its temporary cash surpluses? What sources of short-term finance are appropriate for BK Ltd? Financial statements analysis also contributes to dividend decision within BK Ltd. In this bank, financial managers determine the proportion of earning that should retain and that should be distributed to shareholders as dividends based on the information given by financial statements.

Financial statement analysis contributed in managerial decisions in BK Ltd such as hiring new employees, firing the employees, abandon of a product, introducing a new product and others. The available documents in Bank of Kigali Plc, financial statements analysis as it provides the information that are useful for taking decision within the bank, BK Ltd uses information got from financial statements analysis when it has seen that there is a need of hiring new employees , introducing a new products and abandon the product. This implies that financial statements

analysis provides the information on the area/ service that needs to increase employees in order to improve the bank's performance and as well as the new product can be introduced in order to satisfy the needs of customers. Financial statements analysis influence decision making on firing an employee and other decisions such as opening new branches.

4.3. Decision making of Bank of Kigali

Decision making of Bank of Kigali has been examined in terms of profitability ratios explained with evolution of net profit in Bank of Kigali, Net profit margin ratio, return on Assets, return on Equity and Leverage ratios (Solvency ratios) explained by Debt-to-equity ratio and Debt to asset ratio in Bank of Kigali. These indicators allow police takers of Bank of Kigali to take financial decision easily.

4.3.1. Evolution of net profit in Bank of Kigali

Net profit is defined as the turnover minus the cost of goods sold and other expenses. To find the net profit of a company, one must subtract these costs from the turnover. For a more accurate calculation, adjustments for returns and allowances should also be made. The net profit is a crucial indicator of a company's profitability. The quality of services provided by a bank significantly impacts its profitability. The following table provides an analysis of the net profit evolution of the Bank of Kigali's main branch from 2021 to 2023. This analysis reflects the bank's overall financial health and its ability to generate profit.

Table 5: Evolution of net profit 2021-2023

Years	Net profit in Rwf '000	Evolution (%) Rwf' 000
2021	51,894,970	34.68%
2022	59,855,802	15.34%
2023	74,817,679	25.00%

Source: Bank of Kigali Annual Reports 2021-2023

The table 6 indicates that in 2021, the net profit stood at 51,894,970 Rwf, representing a significant increase of 34.68% compared to the previous year. This considerable growth suggests a strong performance by the bank, possibly driven by increased revenues or effective cost management

strategies. In 2022, the net profit rose to 59,855,802 Rwf, marking a growth of 15.34%. While this increase is substantial, it is lower than the previous year's growth rate, indicating a deceleration in profit expansion. This could be due to a variety of factors such as increased competition, higher operational costs, or market conditions that affected profitability. By 2023, the net profit reached 74,817,679 Rwf, with an impressive growth rate of 25.00%. This rebound in the growth rate suggests a recovery and improvement in the bank's profitability, possibly due to successful strategic initiatives, improved economic conditions, or enhanced operational efficiency. By considering this results, decision-makers can make informed choices to sustain and enhance the bank's profitability and ensure long-term success.

$$\text{The Percentage of increase} = \frac{(\text{The current Net profit} - \text{Previous Net profit}) \times 100}{\text{Previous Net profit}}$$

4.3.2. Profitability ratios of Bank of Kigali

Financial decision making is measured by different indicators here the researcher used the profitability indicator to demonstrate the performance of Bank of Kigali. Profitability ratio shows how successful the bank is in generating return of profit on the investment that it made in the business. If a business is efficient, it should also be profitable. In this section researcher see the contribution of Loan management to the financial performance of the Bank of Kigali by using three categories of Profitability ratio: return on asset (ROA) (Gross profit margin ratio), return on equity (ROE) (Financial profitability) and commercial profitability.

4.3.2.1. Net profit margin ratio

Net profit margin can be used to compare a company with its competitors. More efficient firms will usually see a higher margin. Also, it provides clues about company's pricing, cost structure and production efficiency. Gross profit margin ratio measures the firm's efficiency of operation. It reflects the relationship of prices, volume and costs.

$$\text{The formula: Net profit margin} = \frac{\text{Net Profit}}{\text{Turnover}} \times 100$$

Table 6: Net profit margin ratio

Year	Net profit in Rwf'000	Total operating income in Rwf' 000	Net profit margin ratio(%)
2021	51,894,970	180,221,263	28.80%
2022	59,855,802	181,532,398	32.97%
2023	74,817,679	224,362,014	33.35%

Source: Bank of Kigali Annual Reports 2021-2023

Table 7 shows the Net Profit Margin ratio for the years 2021 to 2023. The Net Profit Margin ratio is a measure of how much net profit is generated as a percentage of total operating income, indicating the efficiency with which a company converts its revenue into actual profit. In 2021, the company had a net profit of 51,894,970 Rwf and total operating income of 180,221,263 Rwf, resulting in a Net Profit Margin ratio of 28.80%. This means that for every 100 Rwf of operating income, the company retained 28.80 Rwf as net profit. In 2022, the net profit increased to 59,855,802 Rwf while the total operating income slightly rose to 181,532,398 Rwf. The Net Profit Margin ratio for this year improved to 32.97%, indicating better efficiency in converting income to profit compared to the previous year. In 2023, the net profit further increased to 74,817,679 Rwf, with total operating income reaching 224,362,014 Rwf. The Net Profit Margin ratio further improved to 33.35%, reflecting continued improvement in the company's profitability and operational efficiency.

4.3.2.2. Return on Equity

Return on Equity measure the rate of return flowing to the shareholders of the company. It is the rate of return that shareholders receive as reward for having invested their funds in the company.

The formula.

$$\text{Return on Equity} = \frac{\text{Net Profit}}{\text{Total Equity}} \times 100$$

Table 7: Return on Equity ratio

Year	Net profit Rwf' 000	Total Equity Rwf'000	ROE (%)
2021	51,894,970	285,700,114	18.16%
2022	59,855,802	319,242,337	18.75%
2023	74,817,679	366,357,418	20.42%

Source: Bank of Kigali Annual Reports 2021-2023

Table 8 provides the Return on Equity (ROE) ratio of Bank of Kigali for the years 2021 to 2023. In 2021, Bank of Kigali had a net profit of 51,894,970 Rwf and total equity of 285,700,114 Rwf, resulting in an ROE of 18.16%. This means that for every 100 Rwf of equity, Bank of Kigali generated 18.16 Rwf in profit. In 2022, the net profit increased to 59,855,802 Rwf while the total equity rose to 319,242,337 Rwf, yielding an ROE of 18.75%. This slight increase in ROE indicates a modest improvement in the company's ability to generate profit from its equity compared to the previous year. By 2023, the net profit further increased to 74,817,679 Rwf, and total equity grew to 366,357,418 Rwf, resulting in an ROE of 20.42%. This significant increase in ROE suggests that Bank of Kigali has become more efficient in generating profit from its equity, indicating strong financial performance and improved management effectiveness.

4.3.2.3. Return on Asset

The company needs all assets to generate its profit. It is thus important to measure the profitability which it generates on its investment.

The return on asset/Investment is the indicator of the efficiency of management. It indicates how the management is able to convert the company's assets into earning computation of Return on asset. This ratio is reckoned by comparing the net income with means implemented to know the total assets

The formula:

$$\text{Return on Asset Ratio (ROA)} = \frac{\text{Net Profit}}{\text{Total Assets}} \times 100$$

Table 8: ROA ratio of Bank of Kigali

Year	Net profit Rwf 000	Total asset Rwf 000	ROA (%)
2021	51,894,970	1,590,372,983	3.26%
2022	59,855,802	1,853,507,516	3.23%
2023	74,817,679	2,120,116,142	3.53%

Source: Bank of Kigali Annual Reports 2021-2023

Table 9 presents the Return on Assets (ROA) ratio for the Bank of Kigali from 2021 to 2023. In 2021, the Bank of Kigali achieved a net profit of 51,894,970 Rwf with total assets amounting to 1,590,372,983 Rwf, resulting in an ROA of 3.26%. This indicates that for every 100 Rwf of assets, the bank generated 3.26 Rwf in profit. In 2022, the net profit increased to 59,855,802 Rwf, while total assets grew to 1,853,507,516 Rwf. The ROA for this year was 3.23%, slightly lower than the previous year, suggesting a marginal decrease in asset utilization efficiency despite the increase in net profit. In 2023, the net profit further rose to 74,817,679 Rwf, and total assets reached 2,120,116,142 Rwf. The ROA improved to 3.53%, indicating that the bank's efficiency in generating profit from its assets increased compared to the previous two years. The Bank of Kigali's ROA showed a slight dip in 2022 but rebounded in 2023, reflecting overall positive growth in the bank's ability to leverage its assets to generate higher profits over the three-year period.

4.3.3. Solvency ratio

Solvency ratios measure the firm dependence, ability to payback debt. Leverage ratios are concerned with measuring the extent and effect of debt financing.

4.3.3.1. Debt to equity ratio

Debt to equity ratio in this graph indicates how well creditors are protected in case of the company's insolvency.

$$\text{Debt to equity ratio} = \frac{\text{Total liabilities}}{\text{Total Equity}}$$

Table 9: Debt to equity ratio

Ratio	2021Frw'000	2022(Rwf'000)	2023(Rwf'000)
Total liabilities (1)	1,304,672,869	1,534,265,179	1,753,758,724
Total Equity (2)	285,700,114	319,242,337	366,357,418
Debt to equity ½	4.57	4.81	4.79

Source: Bank of Kigali Annual Reports 2021-2023

The debt-to-equity ratio reflects a firm's ability to manage its liabilities relative to its equity. Table 10 indicates that this ratio was 4.57 in 2021, 4.81 in 2022, and 4.79 in 2023. A lower debt-to-equity ratio can be beneficial for a company's earnings. Conversely, a high debt-to-equity ratio implies higher risk for shareholders, as creditors are prioritized for compensation if the company goes

bankrupt. For the Bank of Kigali, a moderate debt-to-equity ratio suggests it is not excessively risky for creditors and investors. This ratio indicates a favorable situation during the period from 2021 to 2023, as the bank's equity met the central bank's capital adequacy standards. Additionally, the low level of debt compared to equity during this period highlights the bank's solid financial standing.

4.3.3.2. Debt to asset ratio

Debt ratio indicates the extent to which the firm is using debt to finance its assets.

The formula to be used is as follow:

$$\text{Debt to asset ratio} = \frac{\text{Total liabilities}}{\text{Total asset}}$$

Table 10: Debt to asset ratio

Ratio	2021Rwf '000	2022(Rwf'000)	2023(Rwf'000)
Total liabilities (1)	1,304,672,869	1,534,265,179	1,753,758,724
Total asset (2)	1,590,372,983	1,853,507,516	2,120,116,142
Debt ratio ½	0.820	0.828	0.827

Source: Bank of Kigali Annual Reports 2021-2023

Table 11 presents the debt-to-asset ratio for Bank of Kigali PLC from 2021 to 2023. In 2021, debt financed 82.0% of the bank's assets, increasing slightly to 82.8% in 2022, and then slightly decreasing to 82.7% in 2023. This ratio indicates that the bank has a high level of leverage, as debt consistently finances a significant portion of its assets.

Despite the slight fluctuations, the debt-to-asset ratio remained below 1.0, indicating that the bank does not need to sell off assets to meet its liabilities. The slight increase from 2021 to 2022 suggests that the bank efficiently used debt to finance its assets, transforming liabilities into productive assets. This consistent high leverage reflects the bank's strategy in managing its financial structure and maintaining operational efficiency.

4.3.4. Liquidity Ratio

A bank liquidity is a measure of its ability to meet short- term obligation. An asset is deemed liquid if it can be readily converted into cash. These ratios indicate the ease of turning assets into cash. They include the current ratio, Quick ratio, and working capital,(Harles, 2005)

4.3.4.1. Current Ratios

The current ratio is one of the best known measures of financial decision making. It is calculated as shown below:

$$\text{Current ratio} = \frac{\text{Total current assets}}{\text{Total current liabilities}}$$

4.3.4.1.1. Trend of Current asset at Bank of Kigali PLC from 2021 to 2023 in Rwf'000

In accounting, a current asset is any asset reasonably expected to be sold, consumed, or exhausted through the normal operations of a business within the current fiscal year or operating cycle (whichever period is longer). The Current assets are those assets which will be converted into cash within the current accounting period or within the next year as a result of the ordinary operations of the business. They are cash or near cash resources. For banks, these include: Cash and balances with central bank, Treasury bills and due from other banks, prepaid expenses and short-term loans (overdraft). The table below presents amount of current assets of Bank of Kigali PLC.

Table 11: Trend of current assets of Bank of Kigali PLC

Current Assets	2021(rwf'000)	2022(rwf'000)	2023(rwf'000)
Cash In Hand	21,723,165	21,757,316	30,615,453
Balances with the National of Rwanda	231,758,146	328,750,207	305,656,016
Due from Banks	77,839,613	48,979,707	251,404,182
Investment securities at amortized cost	164,115,134	216,899,036	186,541,766
Investment in corporate bond	12,703,795	12,069,536	18,531,463
Investment in specialized fund	7,814,784	12,605,141	13,255,670
Loans and Advances to Customers	990,267,321	1,134,512,318	1,244,843,264
Insurance contract assets	6,517,668	3,092,783	5,111,545
Assets classified as held for Sale	734,678	566,145	566,14
Others Assets	25,810,132	19,111,508	12,552,527
Total Current Assets	1,539,284,436	1,798,343,697	2,068,511,886

Source: Bank of Kigali PLC Financial statements, 2021-2023

Table 12 illustrates the trend of current assets for Bank of Kigali PLC from 2021 to 2023, showing a steady increase in the bank's financial position and liquidity. In 2021, the total current assets amounted to 1,539,284,436 Rwf, which grew to 1,798,343,697 Rwf in 2022, and further increased

to 2,068,511,886 Rwf in 2023. This growth was driven by significant changes in various asset categories. Notably, cash in hand increased from 21,723,165 Rwf in 2021 to 30,615,453 Rwf in 2023. Balances with the National Bank of Rwanda rose substantially from 231,758,146 Rwf in 2021 to 328,750,207 Rwf in 2022, before slightly decreasing to 305,656,016 Rwf in 2023. Due from banks initially decreased from 77,839,613 Rwf in 2021 to 48,979,707 Rwf in 2022 but then surged to 251,404,182 Rwf in 2023. Loans and advances to customers showed consistent growth, reaching 1,244,843,264 Rwf in 2023 from 990,267,321 Rwf in 2021. Other categories, such as investment securities at amortized cost and investments in specialized funds and corporate bonds, also displayed fluctuating yet generally positive trends. These increases in various asset categories underscore the bank's enhanced capacity to manage its assets effectively, contributing to its overall financial health and operational efficiency.

4.3.4.1.2. Trend of Current liabilities of Bank of Kigali PLC from 2021 to 2023 in Rwf'000

In accounting, current liabilities are often understood as all liabilities of the business that are to be settled in cash within the fiscal year or the operating cycle of a given firm, whichever period is longer. Current liabilities are obligations that are settled by current assets or by the creation of new current liabilities. The following table shows current Liabilities of Bank of Kigali PLC during the period of the study.

Table 12: Trend of current liabilities of Bank of Kigali PLC

Current Liabilities	2021	2022	2023
Due To Banks	190,223,687	280,588,198	195,184,606
Deposits and Balance from Customers	974,494,626	1,075,188,572	1,374,342,881
Current income tax	10,013,864	5,920,034	1,079,716
Other liabilities	35,470,426	28,611,890	42,658,933
Insurance liabilities	9,445,233	7,813,869	10,944,628
Dividends Payable	26,928,781	30,704,511	23,145,719
Total Current Liabilities	1,246,576,617	1,428,827,074	1,647,356,483

Source: Bank of Kigali PLC Financial statements, 2021-2023

Table 13 highlights the trend of total current liabilities for Bank of Kigali PLC from 2021 to 2023, demonstrating a consistent upward trajectory. In 2021, the total current liabilities were 1,246,576,617. This figure increased to 1,428,827,074 in 2022 and further rose to 1,647,356,483 in 2023. The steady increase in total current liabilities over these three years indicates growing

financial obligations for the bank. This trend reflects the bank's expanding scale of operations and possibly increased borrowing or higher levels of customer deposits. The investment that is needed for receivables and cash is generally called working capital or gross working capital. A certain part of the investment in working capital is financed by short-term financing (current liabilities) - meaning payables, current maturities, etc. The difference between the current assets and current liabilities is the net working capital

The table below shows current ratio of Bank of Kigali PLC during the covered period

Table 13: Liquidity ratio of Bank of Kigali PLC from 2021 to 2023

Items	2021(Rwf'000)	2022(Rwf'000)	2023(Rwf'000)
Total Current Assets	1,539,284,436	1,798,343,697	2,068,511,886
Total Current Liabilities	1,246,576,617	1,428,827,074	1,647,356,483
Current ratio	1.23	1.26	1.26

Source: Bank of Kigali PLC, Annual Report 2021-2023

The current ratio is calculated by dividing total current assets by total current liabilities. It measures the bank's ability to cover its short-term obligations with its short-term assets. A current ratio above 1 indicates that the bank has more current assets than current liabilities, suggesting good liquidity and financial health.

In 2021, the bank's current ratio of 1.23 indicated that it had Rwf 1.23 in current assets for every Rwf 1.00 in current liabilities. This ratio improved to 1.26 in 2022, meaning the bank's liquidity position strengthened slightly, with Rwf 1.26 in current assets for every Rwf 1.00 in current liabilities. The stability of this ratio in 2023 suggests that the bank maintained its improved liquidity position. The consistent current ratio over these years reflects the bank's ability to effectively manage its short-term liabilities with its short-term assets, indicating a stable and healthy liquidity position.

GENERAL CONCLUSION AND SUGGESTIONS

Conclusion

This study is divided into four chapters starting by the general introduction as chapter one that covered the background of the research, statement of the problem, research objectives, and research questions, hypothesis of the study and scope of the study, significance of the study and finally structure of the research work. Chapter two is the literature review focused on review of books and other documents found necessary to help the researchers to know what other researchers wrote on the subject related to the topic.

Chapter three is the research methodology and it is focusing on research design, data collection techniques and tools, validity and reliability tests, data processing, methods of data analysis, limitations and ethical consideration. Chapter four is concerned with presentation of brief history of Bank of Kigali PLC, research findings and interpretation of data collected for an attempt to answer the research questions mentioned in general introduction to enable the researchers to draw a conclusion based on the study objectives such as: to analyze the effectiveness of financial statements analysis in Bank of Kigali PLC and to examine the contribution of financial statements analysis to the decision making of Bank of Kigali PLC.

On the first objective, the study analyzed the effectiveness of financial statements analysis in Bank of Kigali PLC. The analysis of Bank of Kigali PLC's financial statements from 2021 to 2023 underscores the crucial contribution that financial statement analysis plays in effective decision-making within the bank. The results demonstrate that the bank has adeptly utilized various financial analysis techniques, including horizontal, vertical, and ratio analyses, to monitor and enhance its financial health and operational efficiency. The common size analysis revealed strong core banking operations, as evidenced by the recovery of net interest income to 76.27% in 2023, and a significant improvement in operating income before impairment losses, which surged to 518.30% in the same year. Horizontal analysis showed a substantial increase in net profit from 51,894,970 Rwf in 2021 to 74,817,679 Rwf in 2023, despite a slower growth rate in 2022. The ratio analysis further highlighted the bank's efficiency, with the net profit margin improving to 33.35% in 2023, the return on equity (ROE) increasing to 20.42%, and the return on assets (ROA) rising to 3.53%. These metrics indicate that Bank of Kigali effectively analyzes its financial

statements, supporting the hypothesis that financial statement analysis positively contributes to decision-making.

In terms of financial stability, the solvency ratios revealed a stable debt-to-equity ratio around 4.57 to 4.79 from 2021 to 2023, and a high yet stable debt-to-asset ratio of around 0.82, suggesting balanced management of liabilities relative to assets. The liquidity ratio, reflected in the current ratio, showed an improvement from 1.23 in 2021 to 1.26 in 2023, indicating the bank's strengthened capacity to meet short-term obligations. These positive trends underscore the bank's ability to convert income into profit, manage operational costs, and utilize assets efficiently, affirming that financial statement analysis has significantly contributed to informed decision-making. Conclusively, the analysis of financial statement is very important for any commercial banks in Rwanda because it plays a great contribution in financial decision making.

Table 13 highlights the trend of total current liabilities for Bank of Kigali PLC from 2021 to 2023, demonstrating a consistent upward trajectory. In 2021, the total current liabilities were 1,246,576,617. This figure increased to 1,428,827,074 in 2022 and further rose to 1,647,356,483 in 2023. The steady increase in total current liabilities over these three years indicates growing financial obligations for the bank. This trend reflects the bank's expanding scale of operations and possibly increased borrowing or higher levels of customer deposits. The investment that is needed for receivables and cash is generally called working capital or gross working capital. A certain part of the investment in working capital is financed by short-term financing (current liabilities) - meaning payables, current maturities, etc. The difference between the current assets and current liabilities is the net working capital. In 2021, the bank's current ratio of 1.23 indicated that it had Rwf 1.23 in current assets for every Rwf 1.00 in current liabilities. This ratio improved to 1.26 in 2022, meaning the bank's liquidity position strengthened slightly, with Rwf 1.26 in current assets for every Rwf 1.00 in current liabilities. The stability of this ratio in 2023 suggests that the bank maintained its improved liquidity position. The consistent current ratio over these years reflects the bank's ability to effectively manage its short-term liabilities with its short-term assets, indicating a stable and healthy liquidity position.

In respect to the extent to which financial statement analysis led to desired decisions, BK decisions enhanced performance in information technology and communications infrastructures,

improving customer services as well as enhancing the bank's funding and capital management. The decisions enabled the bank to raise its interest income while reducing interest expenses that produced a net interest income. Therefore, the bank implemented its decision to review a treasury management system that improved the management of risk in the bank by changing risk management practices. The ratio indicates that the firm is performing well since for a healthier firm to have productivity, the net profit margin should neither be high nor low. Calculated value of level of significance was 0.036. While a mean square at regression level was 1.828. The finding revealed that holding independent variables constant to a constant zero, short term investment decision would be at 0.266 for common size analysis while the most significant p value was 0.008. The finding revealed that holding independent variables constant to a constant zero, Vertical analysis would be at 0.215 for horizontal analysis and element enhanced ratio analysis in the term investment decision limited by a factor of 0.001 significantly correlated with the longterm investment decision.

suggestions

This study has shed lighter on analysis of financial statement to the decision making of commercial banks in Rwanda case study of Bank of Kigali/main branch. Based on the findings and the main emerging issues from the study, the following recommendations were suggested by the researchers.

To the Bank of Kigali PLC

1. Bank of Kigali PLC should adhere to the demand of subjecting their financial statement to statutory audit as a way of authenticating their contents.
2. The financial statements should be prepared using such a language and terms can be understood because the technical terms do not mean much to the investors.
3. Bank of Kigali should be minimal and invested wisely to avoid its negative effect on the profit of the bank which discourages prospective investors.
4. Bank of Kigali should carry out educational enlightenment programme from time to time to enable investors understand the financial report.
5. Bank of Kigali should sponsor research into the information needs of their investors and how best to communicate this information to them.

suggestions to other researchers

Based on the following and analyze the following suggestion to other researchers:

1. To study the impact of the statement analysis on maximize the income on commercial bank
2. To analyze the contribution of financial statement analysis on fight against errors and fraud in banks.

REFERENCES

- Andrew B, (1994). Some challenges in financial reporting for regulatory agencies address, Accountants and Exchange commission, Washington, D.C.
- Antony, M.K. (2009). Effect of investor psychology on real estate market prices in Nairobi and
- AnyanwuAham (2000). Research Methodology in Business and Social science, Owerri. Canum
- Aroh J.C., Ndu O.K., Aroh N.N. (2011). Advanced Financial Account I, Onitsha, Adson Educational publishers.
- Babihuga, R., (2005). Macroeconomic and financial soundness indicators: An empirical investigation', IMF working paper, no. 15. Vol. 3, no. 3-4, pp. 163-188.
- Bayldon, R & A. Woods & N Zafaris (1984).A note on the pyramid technique of financial ratio analysis of firm's performance. Journal of Business Finance & Accounting 11:1, 99-106.
- Berger, A. and Udell, G. (1993) "Securitization, Risk, and the Liquidity Problem in Banking, Structural Change in Banking, M. Klausner and L. White, editors, Irwin Publishers, Illinois.
- Berger, A. and Udell, G. (1995) "Relationship Lending and Lines of Credit in Small Firm Finance," Journal of Business, July.
- Berger, A. N. and DeYoung, R., (1997) 'Problem Loans and Cost Efficiency in Commercial Banks', Journal of Banking & Finance, Vol.21, pp. 849-870.
- Bernstein, Leopold A. (1989). Financial Statement Analysis: Theory, Applications, and Ownership Structure," Journal of Financial Economics 3, p.305-60.
- Brealey, Richard & Stewart Myers, (2003) Principles of Corporate Finance. Seventh Edition. Auckland, etc: McGraw-Hill.
- Breuer, J.B, (2006) Problem bank loans, conflicts of interest, and institutions', Journal of Financial stability, Vol. 2, pp. 266-285.
- Chen Rung H. & Thomas Shimerda (1981). An empirical analysis of useful financial ratios. Financial Management. Spring 51-60.
- Courtis, John K. (1978). Modeling a financial ratios categorist framework. Journal of Business Finance and Accounting 5:4, 371-386.
- Cowen Scott S. & Jeffrey A Hoffer (1982). Usefulness of financial ratios in single industry. Journal of Business Research 10:1, 103-118.

- Demirguc-Kunt, A. and Fl. Fluizinga. (1997). "Determinants of commercial bank interest margins and profitability: Some international evidence". World Bank Policy Research Working Paper'Ho. Washington, D.C.
- Donze, S., (2006) 'Bank Supervisor Independence and the Health of Banking Systems: Evidence form OECD Countries', Working paper (London School of Economics).
- Mahé, L. (1997). Environment and Quality Standards in the World Trade Organization: New
- MINICOFIN. (2007). Economic development and poverty reduction strategy 2008-2012. Government of Rwanda, MINICOFIN. Kigali - Rwanda: Government of Rwanda.
- MINICOM. (2013). MINICOM Annual Report 2012/13. Kigali: MINICOM.
- Mohammad. (2013, January). Essays on manufacturing-related management accounting Andreas Myrelid. manufacturing-related management accounting journal, vol. 4, pp. 32 - 45.
- MohammadHudaib, R. &. (2006, Octomber). Corporate Governance Structure and Performance of Malaysian Listed Companies. Journal of Business Finance & Accounting, vol.33(7 & 8), pp. 1034–1062.
- Muhammad, A. C., Muhammad, A., Faheem, M., Khyzer, B. & Iqra, A. (2011, December). Globalization and its Impacts on the World Economic Development . International Journal of Business and Social Science, pp. 291 - 297.
- Nagurney, A. (2002). Spatial Price Equilibrium. Isenberg: University of Massachusetts.
- NaLi, Lijun, C. & Steven, H. L. (2002). Optimal Demand Response Based on Utility Maximization in Power Networks. Engineering & Applied Science journal, vol.4, pp.453 - 463. 62
- Nancy, B., Dani, R. & Arvind, S. (2005). How to Help Poor Countries. foreign affairs jounal, Vol.84(4), PP.136 - 152.
- Nasri, W. (2011). Competitive intelligence in Tunisian companies. Journal of Enterprise Information management, Vol.24(1), pp. 53-67.
- Neely, A. (2002). Business Performance Measurement: Theory and Practice. Combridge - UK: Combridge University Press.
- NISR. (2013). Financial Inclusion In Rwanda 2008 – 2012. Kigali - Rwanda: Government of Rwanda.
- Nurakhmet, G. (2012). What Is The Role Of Overhead Cost Recovery In Production Sharing Contracts? London - Uk: Gulzhan Nurakhmet.
- Office Of The Chief Accountant, Office Of Economic Analysis ,Division Of Corporation Finance. (2002). Report and Recommendations Pursuant to Section 401(c) of the Sarbanes-Oxley Act of 2002 On

Arrangements with Off-Balance Sheet Implications, Special Purpose Entities, and Transparency of Filings by Issuers. Washington DC: United States Securities And Exchange Commission.

Oracle. (2011, mARCH). Enterprise Performance Management innovation. *Journal of Management Excellence*, PP.1 - 24.

Organisation for Economic Co-operation and Development. (2004). "Indirect Expropriation" And The "Right To Regulate In International Business Law. London: Organisation for Economic Co-operation and Development(OECD).

Organization for Economic Co-operation and Development[OECD]. (2005). Regional integration agreements. Paris - France: Organization for Economic Co-operation and Development.

Ozan Candogan, Kostas Bimpikis & Asuman Ozdaglar. (2005, August). Optimal Pricing in Networks with Externalities. *Journal of Operations research*, pp. 883–905.

Parnes, Velano & Martinez. (2008). Financial Analysis CS: Sample Reports . USA: Creative Solutions Accounting.

Philippe D., Giulia P & Chatrini W. (2008). Systems of Indicators for Monitoring Regional Integration Processes: Where Do We Stand? *The Integrated Assessment Journal*, Vol. 8, pp.39 - 67.

Rizal, A. & Francis, B. (2001). Customer retention: a potentially potent Customer retention: a potentially potent. *Journal Of Strategic Marketing*, vol.9, pp.29–45.

Robinson, R. (2003). How to conduct a SWOT analysis? London: Abaris Consulting.

Ruth N. Bolton , P. K. Kannan & Matthew D. Bramlett. (2000). Implications of Loyalty Program Membership and Service Experiences for Customer Retention and Value. *Journal of the Academy of Marketing Science.*, vol.28(1), PP. 95-108.

Rwanda development. (2013). Steel Product Manufacturing in Rwanda. Kigali: Rwanda Development Bord(RDB). 64

Rwanda Development Board. (2010). Potential Investment Opportunities In Rwanda. Rwanda Development Board. Kigali: Independent consultant.

S. Rajasekar, P. Philominathan & V. Chinnathambi. (2013). Research Methodology. Tamilnadu, India: School of Physics, Bharathidasan University.

Sangeeta., Kato K. & Nicholas P. (2007). tariff reductions under the East African Community Customs Union: Intra-trade effects on Uganda. Sao Paulo - Brazil: Aberystwyth University .

Schroeder, M. (2002). A simplified approach to strategic planning: Practical considerations and an illustrated example. *Journal of business management*, vol.8(1), pp.8-16.

- Shaista, W., Hanimas A., Ahmad, T. (2013). Profitability of Islamic Banks in Malasia: An empirical analysis. *Journal of Islamic Economic*, PP. 64 - 72.
- . Government of Rwanda. Washington DC: International Monetary Fund .
- Sudip Das & Tripathy. (2010). *Analysis And Interpretation Of Financial Statements: Case Studies*. Rourkela: National Institute Of Technology, Rourkela .
- Sunday, A. E. & Peter A. O. (2012, August 31). Analytical evaluation of cost elements and their influence on productivity of manufacturing firms . *Journal of Finance and Investment Analysis*, vol. 1(3), pp. 171-180 .
- Swamidass. (2000). *Encyclopedia of production and manufacturing management*. MA.
- Tangen, S. (2003). An overview of frequently used performance measures. An overview of frequently used performance measures, vol.52, pp.347 - 354.
- Tatahi, M. (2012). Enterprise Performance, Privatization And The Role Of Ownership In Bulgaria. *South-Eastern Europe Journal of Economics* , vol.2, pp.131-153.
- Tatiana, A. & James, W. (2009). Privatization, Ownership Structure and company performance: The case of Ukraine. Kiev, UKRAINE: Simon Fraser University.
- Taylor, T. (2000). Current deVelopments In Cost Accounting And The Dynamics Of economic calculation. *The Quarterly Journal Of Austrian Economics*, vol.3, pp. 3–19.
- Taylor, T. C. (2000). *The Quarterly Journal Of Austrian Economics*, vol.3, pp. 3–19.
- Tewolde Melles Hagos & Gubán Pal. (2010). THE MEANS OF ANALYSIS AND EVALUATION FOR CORPORATE PERFORMANCES. *Annales Universitatis Apulensis Series Oeconomica*, vol.12(1), pp.438 - 449.
- Van, Triest, S. & Elshahat, M.F. (2007). The use of costing information in Egypt. *Journal of Accounting & Organizational Change*, vol 3(n 3), pp. 329-343.
- Vincent, B. & David, N. (2012). The effects of credit policy on bank performance: Evidence from selected Rwandan Commercial banks. *Rwanda Journal ISSN : social sciences*, pp. 116 - 119.
- Wartick, S.,L. & Cochran, P. L. (1985). The Evolution of the Corporate Social Performance model. *Academy of MAGEMENT Review*, vo.10, pp.758 – 769.
- William, M. S., Cheryl, M. G. (2004). *What Do Users of Private Company Financial Statements Want?* London: Financial Executives Research Foundation.

APPENDIX

FINANCIAL STATEMENTS 2021-2023

Consolidated statement of financial position

For the year ended 31 december 2023

		Restated 31 December 2023	Restated 31 December 2022	Restated 01 January 2022
	Note	FRw'000	FRw'000	FRw'000
Cash in hand	18(a)	30,615,453	21,757,316	21,723,165
Balances with the National Bank of Rwanda	18 (b)	305,656,016	328,750,207	231,758,146
Due from other banks	19	251,404,182	48,979,707	77,804,297
Investments at amortised cost	20(a)	186,541,766	216,899,036	164,115,134
Investment in corporate bond	20(b)	18,531,463	12,069,536	12,703,795
Investment in specialized fund	20(c)	13,255,670	12,605,141	7,850,099
Loans and advances to customers	21	1,244,843,264	1,134,512,318	990,267,321
Insurance contract assets	23	5,111,545	3,092,783	4,590,192
Reinsurance contract	22	2,515,513	2,203,173	1,901,532
Other assets	24	12,552,527	19,111,508	25,433,010
Deferred income tax	25	4,734,412	10,647,966	9,546,653
Right of use assets	27(iii)	1,152,743	1,760,557	1,659,359
Assets classified as held for sale	26	566,145	566,145	734,678
Property and equipment	27(i)	32,352,686	30,057,613	29,608,749
Intangible assets	27(iii)	10,282,757	10,494,510	10,273,785
Total assets		2,120,116,142	1,853,507,516	1,589,969,915
Liabilities				
Due to banks	28	195,184,606	280,588,198	190,223,687
Deposits and balances from customers	29	1,374,342,881	1,075,188,572	974,494,626
Income tax payable	16(ii)	1,079,716	5,920,034	10,013,864
Dividends payable	30	23,145,719	30,704,511	26,928,781
Insurance Contract liabilities	31(i)	10,944,628	7,813,869	7,757,524
Creditors arising from reinsurance	31(ii)	1,026,489	931,761	1,235,766
Other liabilities	32	42,658,933	28,611,890	35,466,746
Lease liabilities	33	1,653,690	1,787,992	2,087,323
Long-term finance	34	103,722,062	102,718,352	56,026,996
Total liabilities		1,753,758,724	1,534,265,179	1,304,235,313
Capital and reserves				
Share capital	35(i)	9,281,625	9,185,147	9,045,474
Share premium	35(ii)	82,423,448	79,953,617	76,573,491
Revaluation reserves	35(iii)	13,099,993	13,099,993	13,099,993
Statutory reserves	35(iii)	2,321,973	2,321,973	2,321,973
Retained earnings	35(iv)	254,971,032	211,133,499	182,014,901
Equity attributable to the owners of the parent		362,098,071	315,694,229	283,055,832
Non-controlling interests		4,259,347	3,548,108	2,678,770
Total equity		366,357,418	319,242,337	285,734,602
Total liabilities and equity		2,120,116,142	1,853,507,516	1,589,969,915

These financial statements were approved by the Board of Directors and were signed on its behalf by:



Director



Director

Consolidated statement of profit or loss and other comprehensive income

For the year ended 31 december 2023

		31 December 2023	Restated 31 December 2022
	Note	FRw'000	FRw'000
Interest revenue calculated using the effective interest	7	216,837,693	187,448,813
Interest expense calculated using the effective interest method	8	(51,452,655)	(49,673,037)
Net interest income		165,385,038	137,775,776
Fee and commission income	9(i)	43,288,034	29,167,427
Fee and commission expense	9(ii)	(3,726,771)	(2,894,123)
Foreign exchange related income	10	13,878,201	13,529,522
Insurance revenue	11	12,430,634	11,244,741
Insurance service expenses	12(i)	(9,163,399)	(8,213,198)
Net insurance finance expenses	12(iii)	(190,190)	(143,576)
Net expenses from reinsurance contract held	12(ii)	(944,004)	(772,989)
Other operating income	13	3,404,471	1,838,818
Operating income before impairment losses and claims		224,362,014	181,532,398
Credit impairment losses	14	(18,606,589)	(10,006,879)
Net operating income		205,755,425	171,525,519
Employee benefits expense	15(i)	(42,826,475)	(33,386,960)
Depreciation and amortisation	15(ii)	(10,245,958)	(8,285,599)
Administration and general expenses	15(iii)	(42,865,172)	(41,154,923)
Total operating expenses		(95,937,605)	(82,827,482)
Operating profit		109,817,820	88,698,037
Interest on lease liabilities	15(iv)	(105,900)	(111,769)
Profit before income tax		109,711,920	88,586,268
Income tax expense	16	(34,894,241)	(28,730,466)
Profit for the year		74,817,679	59,855,802
Other comprehensive income:			-
Total comprehensive income for the year		74,817,679	59,855,802
Attributable to:			
Equity holders of the parent		73,869,360	58,986,464
Non-controlling interests		948,319	869,338
Basic and diluted earnings per share in FRw	17	80.6	65.1

The notes set out on pages 135 to 216 form an integral part of these financial statements.

Consolidated statement of financial position

As at 31 December 2022

		31 December 2022 FRw'000	31 December 2021 FRw'000
Cash in hand	19 (a)	21,757,316	21,723,165
Balances with the National Bank of Rwanda	19 (b)	328,750,207	231,758,146
Due from banks	20	48,979,707	77,839,613
Held to maturity investments	21 (a)	216,899,036	164,115,134
Investment in corporate bond	21 (b)	12,069,536	12,703,795
Investment in specialized fund	21 (c)	12,605,141	7,814,784
Loans and advances to customers	22	1,134,512,318	990,267,321
Insurance-related assets	23	5,518,539	6,517,668
Other assets	24	19,374,250	25,810,132
Deferred income tax	25	10,649,558	9,546,653
Right of use assets	26	1,760,557	1,659,359
Assets held for sale	27	566,145	734,678
Property and equipment	28(i)	30,057,613	29,608,750
Intangible assets	28(ii)	10,494,510	10,273,785
Total assets		1,853,994,433	1,590,372,983
Liabilities			
Due to banks	29	280,588,198	190,223,687
Deposits and balances from customers	30	1,075,188,572	974,494,626
Income tax payable	17	5,920,034	10,013,864
Dividends payable	31	30,704,511	26,928,781
Insurance liabilities	32	8,162,379	9,445,233
Other liabilities	33	29,848,038	35,470,426
Lease liabilities	34	1,787,992	2,069,256
Long-term finance	35	102,718,352	56,026,996
Total liabilities		1,534,918,076	1,304,672,869
Capital and reserves			
Share capital	36 (i)	9,185,147	9,045,474
Share premium	36 (ii)	79,953,617	76,573,491
Revaluation reserves	36(iii)	13,099,994	13,099,994
Statutory reserves	36(v)	2,321,973	2,321,973
Retained earnings	36(iv)	211,017,312	181,990,759
Equity attributable to the owners of the parent		315,578,043	283,031,691
Non-controlling interests		3,498,314	2,668,423
Total equity		319,076,357	285,700,114
Total liabilities and equity		1,853,994,433	1,590,372,983

These financial statements were approved by the Board of Directors on March 23rd, 2023 and were signed on its behalf by:

Director 

Director 

Consolidated statement of profit or loss and other comprehensive income

For the year ended 31 December 2022

	Note	31 December 2022 FRw'000	31 December 2021 FRw'000
Interest revenue calculated using the effective interest	7	187,448,813	176,572,535
Interest expense calculated using the effective interest method	8	(49,673,037)	(40,301,177)
Net interest income		137,775,776	136,271,358
Fee and commission income	9	29,167,427	21,824,949
Fee and commission expense	9	(2,894,123)	(1,965,524)
Foreign exchange related income	10	13,529,522	11,779,561
Gross insurance premiums	11	11,581,822	10,140,525
Other operating income	12	2,087,671	2,170,394
Operating income before impairment losses and claims		191,248,095	180,221,263
Credit impairment losses	13	(10,006,879)	(34,068,752)
Premium ceded to reinsurance	11	(3,744,871)	(2,694,984)
Insurance benefits and claims paid	14	(3,247,645)	(3,359,441)
Net operating income		174,248,700	140,098,086
Employee benefits expense	15(i)	(35,039,416)	(31,333,019)
Depreciation and amortisation	15(ii)	(8,538,536)	(6,543,090)
Administration and general expenses	15(iii)	(41,994,760)	(25,153,532)
Total operating expenses		(85,572,712)	(63,029,641)
Operating profit		88,675,988	77,068,445
Interest on lease liabilities	15(iv)	(221,212)	(187,777)
Profit before income tax		88,454,776	76,880,668
Income tax expense	16	(28,730,466)	(24,985,698)
Profit for the year		59,724,310	51,894,970
Comprehensive income			
Other comprehensive income		-	-
Total comprehensive income for the year		59,724,310	51,894,970
Attributable to:			
Equity holders of the parent		58,894,419	51,077,753
Non-controlling interests		829,891	817,217
Basic and diluted earnings per share in FRw	18	65.0	57.4