



Effect of Gross Domestic Product and Interest Rate Changes on the Financial Performance of Banks in Kenyan: A Case of Co. Bank Limited

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ABSTRACT

The study's primary objective was to determine the effect of macroeconomic variables on bank performance. Numerous studies on the effects of macroeconomic factors on the banking business in Kenya and globally have been undertaken, all with differing findings and conclusions. The purpose of this study was to add to existing information by determining the extent to which macroeconomic variables affect bank performance. The study was guided by the following objectives: To what extent has gross domestic product affected the Co. Bank of Kenya Limited's performance, extend to which interest rate changes affect the Co. Bank of Kenya Limited's performance. Liquidity preference theory, efficient market theory, and current portfolio theory were adopted in the study. The study used a descriptive research approach to examine the relationship between the independent variables of gross domestic product and interest rates and the dependent variable of bank performance. The study surveyed a total of 120 respondents from the Cooperative Bank of Kenya limited, including branch managers, credit managers, finance officials, accountants, staff, and consumers. The study drew conclusions about the research issue using both primary and secondary data. The study collected main data via questionnaires and secondary data via data collecting forms. Secondary data was derived from the Co-operative Bank of Kenya's annual financial reports from 2016 through the first quarter of 2022, CBK, Kenya Bureau of statistics, World Bank reports etc. The study first looks at the general information of the respondents in the fourth chapter. This information is presented using pie charts, graphs and tables. The chapter further explores the dependent variable and presents response from respondents on the extent to which independent variables affect dependent variables in for, of graphs, tables. The study also explores each independent variable. It starts with GDP and Interest rates respectively. For every independent variable the researcher used five statements to ascertain the effect of each variable on bank performance. The research also utilizes secondary data to compute trend analysis for each independent variable and to formulate multiple regression equation and regression coefficients. The study wraps up with the limitation of the study. The last part of the study entails a summary of the research findings. The summary provides an illustration of each independent variable and its effect on the dependent variable in line with the findings of the study. The study further looks at overall research conclusions, provides recommendation on what needs to be done to minimize the effects of the independent variables on the dependent variable.

Keywords: Gross Domestic product, Gross National Product, Efficiency Structure Theory, Market Structure Theory, International Monetary fund, Return on Assets, Return on Equity, Return on Investment, Bank Performance, Macroeconomic variables, Interest Rates, Exchange Rate, Inflation rate

INTRODUCTION

According to (Mankiw, 2009) macroeconomics is a branch of economics that studies the economy as a whole rather than the individual household. Macroeconomic variables are also called economic indicators or main signposts signalling the current trends in the economy. (Wepukhulu, 2019) Opines that macroeconomic variables are external elements that influence the firm's performance and are out of the dominance of the bank management power to control. They are external variables that exert an indirect effect on the financial performance of a bank. Macroeconomic variables are closely monitored and checked by the government since they affect many of the population (Khalid et al., 2012).

According to (Kwon and Shin, 1999), macroeconomic variables such as GDP, currency exchange rates, interest rates, inflation, and market risk all have a substantial impact on bank performance. This study examines the following macroeconomic variables:

Gross Domestic Product

G.D.P. is the total production produced inside the borders of a country over a specified time period. Annually, G.D.P. is computed and includes all consumption by public and private customers, government, and exporters, minus imports inside a country's boundaries. According to Jiménez et al.

(2009; Bolt et al., 2012; Calza and al., 2006), G.D.P. improves bank performance by reducing loan losses, net interest revenue, and operating costs (Combey 2017). The profitability of banks increases in tandem with a country's economic growth. During a recession, bank profitability plummets. High economic growth boosts bank loans and deposits, resulting in improved financial performance. High G.D.P. also means customers have more disposable income and a lower unemployment rate, which minimises the risk of consumer loan default. A decline in economic growth indicates reduced disposable income and a high unemployment rate, increasing the likelihood of default on consumer loans. A decrease in G.D.P. also decreases loans and deposits, thus raising the cost of collecting loans.

Interest rates

Interest rates refer to the prices of funds. It also refers to the cost of acquiring credit in an economy. Credit is important to both investors and individuals. Investors need credit to finance their investments activities while individuals need it to fund their consumption needs. High interest rates have the effect of lowering the aggregate level of investments and overall consumption (Ngetich and Wanjau, 2011). Interest rates will often rise in response to an increase in credit demand and fall in response to an increase in credit supply. As a result, interest rates are crucial in transferring financial resources from deficit to surplus units.

The instability of interest rates has effects on bank performance. According to (Investopedia, 2019) Interest rate correlates with bank performance. Banks benefit from high-interest rates; with high-interest rates, banks can make more money. Banks accomplish this by capitalizing on the discrepancy between the interest produced on investments and the interest paid to consumers. High interest rates also signify improved economic growth. Low-interest rate rates mean that the return on investment to the bank will decline, reducing the banks' profitability.

Bank performance

According to (Ongore, 2013) the World Bank first issued a structural loan in 1980 to Kenya and other countries (Balassa 1989). After the I.M.F. and the World Bank implemented the structural adjustment policies, which were a requirement for countries with high national debts, they could continue getting loans from these international financial institutions. The structural adjustment loans required that a government requiring the loan should reorganize state economies by privatizing the state companies, liberalizing trade and capital flows, and deregulation of national economies. Financial markets deregulation, globalization, trade liberalization, and technological progress have changed banks operating scope. This has resulted in increased market competition and has created a need for bank performance evaluation and management.

Statement of the Problem

Since September 2016, when the Banking Act was passed, interest lending rates have been capped at 4% above the C.B.R., and deposit rates have been set at 70% of the C.B.R. (Cytonn Investment, 2019), it has resulted to more harm than good. Firstly, the private sector credit growth has been declining at a special rate, especially for small-medium enterprises (S.M.E.s), because banks perceived S.M.E.s as risky borrowers. This diverted banks into investing in asset classes that yielded higher returns on a risk-adjusted basis, for example, government securities. Secondly, following the enactment of the banking act, banks have had to change their operating models to mitigate the effects of the legislation. The legislation has led to reduced interest income of the commercial banks, thus affecting their financial performance. (Gikombo, 2018) As a measure of commercial bank profitability and overall financial performance, the real interest rate has a considerable impact on ROA and R.O.E. Thirdly, due to the decline in the private sector credit growth, Kenya has experienced rapid growth in the alternative credit markets as experienced by Mobile Financial Services, for example, M – Tiwari, Branch, Tala, among many others (Cytonn Investment, 2019).

Objectives

The general objective of the study is to determine the effect of macroeconomic variables on the financial performance of Kenyan banks.

Specific objectives

- i. To investigate the effects of G.D.P. on bank financial performance at Co. Bank.
- ii. To examine how interest rate changes affect bank financial performance at Co. Bank.

Significance of the Study

This study will contribute to the current body of knowledge regarding the influence of macroeconomic variables on bank performance. All stakeholders in the macro economy, whose operations are affected by fluctuations in inflation, interest rates, currency rates, and the country's gross domestic product (G.D.P.), can benefit from the information in this study. This information will be most valuable too; commercial bank stakeholders, the government, business firms, researchers, scholars, and any other non-banking financial institution in formulating policies that can curb the effects of macroeconomic variables.

Government agencies such as the C.B.K. and the national Treasury will use the information to regulate macroeconomic variables. The research will assist them in making decisions, particularly when coming up with policies. For example, the C.B.K. is responsible for formulating monetary policies

that assist regulate the quantity of money circulating in the economy, so influencing interest rates and inflation. Economic policies also have an effect on business expansion, net exports, and the cost of debt, both positively and negatively.

Commercial bank stakeholders, i.e., the management, will use the information to determine whether the Treasury is making viable investments. The study's findings will be tremendously beneficial for management in terms of gaining a better grasp of the relationship between risk-adjusted returns and macroeconomic variables.

The study will provide insight for future research to academics and scholars, particularly for individuals interested in contributing to this field, who will find the study a helpful resource for bridging gaps in the literature and research.

LITERATURE REVIEW

A theoretical framework is a set of guidelines for conducting research (Grant and Osanloo, 2014). A theoretical framework is related to and reflects the research questions and is based on current theories in the subject of study. It is the bedrock upon which research is built. It assists researchers in locating and contextualising formal theories in their studies.

Liquidity Preference Theory

John Maynard Keynes invented the Liquidity Preference Theory. Keynes used liquidity preference to influence interest rates in his very influential General Theory in 1936. Before introducing the Liquidity Preference Theory, the classical theory of interest claimed that interest rates were driven by two fundamental factors: investment demand and savings supply. Interest rate is the opportunity cost incurred for holding money. The interest rate, according to Keynes, is regulated by the demand for and supply of money, not by saving and investment. The need to keep the money to enable transactions is known as demand for money, and it is made up of three motives, according to Keynes transactional motivation, precautionary motive, and speculative motive. The first two motives are largely determined by income, whereas interest rate levels largely determine the speculative motive. The money supply is the quantity of money in circulation in an economy at a given point in time, as determined by the central bank. The interest rate is a price that makes the amount of money the public wants to hold equal to the amount of money already exists.

Modern portfolio theory

Harry Markowitz founded the Modern Portfolio Theory in 1952. (M.P.T.) This is often one of the major significant and influential economic theories in investments and finance. The idea was further developed by William Sharpe in 1966, alongside Merton Miller. Modern portfolio theory is an investment theory that aims to maximize predicted portfolio returns for a given degree of risk. In addition, the theory aims to reduce the risk for a given level of projected returns. Investors, according to Markowitz, should make portfolio decisions only on the basis of expected returns and standard deviations. Investors should analyze the expected return and standard deviation of each portfolio before selecting the one with the best combination of these two qualities. Harry Markowitz assumed that the majority of investors are risk-averse. They are hesitant to invest because they need to take the least amount of risk feasible to earn the best potential return by maximizing returns to risk ratios and carefully selecting the quantities of various assets. M.P.T. has numerous practical applications, such as lowering volatility in a stock portfolio.

None of the macroeconomic variables can be predicted precisely, yet they all have an effect on the rate of return on an asset. M.P.T. seeks to enhance the risk-reward connection by constructing portfolios of assets based on their returns, risks, covariance or correlation with other assets. M.P.T. establishes a paradigm in which any expected return is dangerous due to the uncertainty surrounding future events, and in which this risk-reward relationship can be optimized by diversification. The theory is significant to this research because it explains how investors might mitigate risk exposures in response to changes in macroeconomic economic parameters such as inflation, exchange rates, interest rates, and gross domestic product, all of which have an effect on bank performance in Kenya.

Efficient Market Hypothesis

Eugene Fama championed the Efficient Market Hypothesis, which is based on the idea that investors act rationally, maximize expected utility properly, and process all available information (Shiller, 1998). An efficient market is defined by (Fama 1965) as a market for assets in which, given all available information, actual prices represent excellent estimates of intrinsic values at all times. Many rational profit maximizers actively compete with one another in the market, attempting to anticipate future market values of particular securities, and vital current information is readily available to all or any players (Fama, 1965). When new information becomes available, it spreads swiftly and is instantly absorbed into the prices of securities.

Empirical Literature Review

Interest Rate and Bank performance

(Omisope Sunday J, 2020) After examining financial reforms with a particular emphasis on interest rates and the financial performance of commercial banks in two countries, it was concluded that both bank deposits and interest rates have a major impact on bank performance. The study used secondary data covering the period of 2012 to 2017. The data came from the financial statements of two commercial banks in the two countries under scrutiny.

The study recommended that the borrowers be protected from commercial banks' exploitation via interest rate regulations imposed by the regulatory authorities involved.

(Afzal Ahmed et al. 2018) investigated the link between interest rates and commercial bank performance in Pakistan. The study used a quantitative approach to make inferences about the variables. The study used the annual data of interest rates gathered from reports of state banks of Pakistan and their financial reports for a period of eight years from 2008-2014. The study found out that ROA is a significant factor in determining bank performance. As banks increase their deposits with other banks, their return on assets decreases because this will reduce the value of the total assets. Interest rates, according to research, have a negative link with the rate of return on investments. The study further explains that if interest rates decrease, people will not keep their money in the bank; instead, they will hoard their money in other investment opportunities with higher returns. If the interest rate increases, people will put their money in banks to earn an interest income on their deposits. This increases banks' assets, thus increasing the return on assets of the banks. The research recommended that bank performance is an important function of Interest rate fluctuation; therefore, proficient and skillful regulations and administrative structures and Bank lending rate policies should be fortified. The study also recommended that banks manage their portfolios properly, and the concerned authority should develop monetary policies that will assist boost the banks' profitability.

Gross Domestic Product and Bank performance

Banks are very significant in an economy since they facilitate Capital Formation, Promote Industrial growth, and stimulate employment creation. Banks collect deposits from depositors, which they invest in, and use them to provide loans and advances to the growing businesses in dire need of funds. By so doing, the banking industry becomes a direct stakeholder in creating employment in the country, contributing to the growth of G.D.P.

(Nyabakora et al. 2020) conducted a study on how macroeconomic variables affect bank performance in Tanzania. The data for the study came from the Tanzanian central bank, the Tanzania Bureau of Statistics, and World Bank databases. The study employed the regression model to estimate the effects of various factors affecting bank profitability. The study found out that real G.D.P. has major effects on non-performing loans rate, which means that improved economic growth of a country results in improving the income of banks, thus improving bank performance. The study concluded that G.D.P. had an insignificant positive relationship with Bank performance.

(FanenAnande-Kur, 2020) researched the factors that influence bank financial performance in Nigeria. The link between the dependent and independent variables was investigated using data regression analysis. According to the study, G.D.P. had a positive significant statistically significant association with bank performance. This means that economic growth has a significant influence on bank performance. The study concluded that under a favourable economic environment, banks could achieve higher returns. The study recommended that governments should develop policies that create good conditions which will increase banking sector profitability.

Conceptual Framework

Fig 1 Conceptual framework

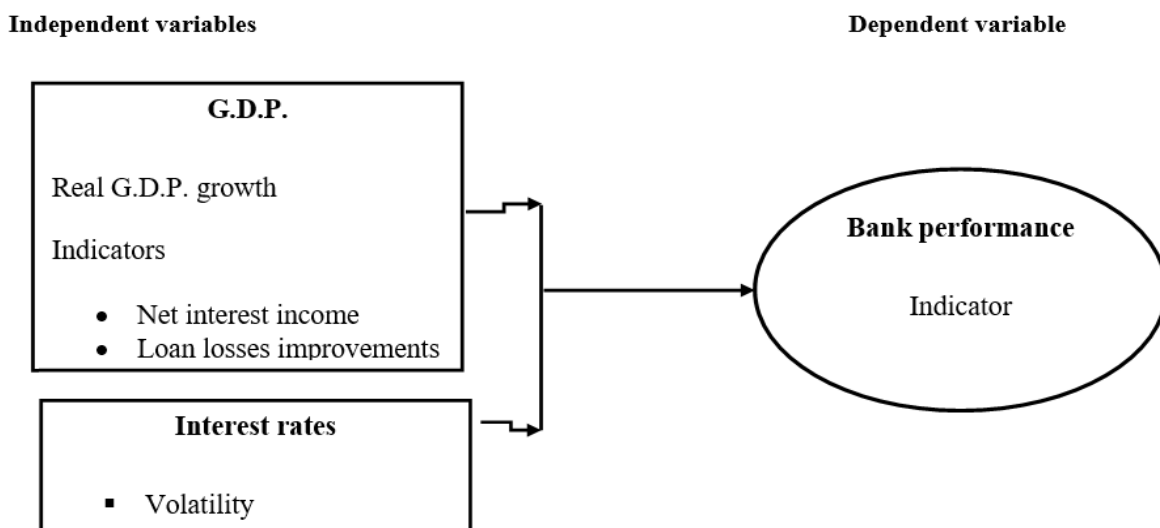


Table 1 Operationalization of variables

Variables	Type of variable	Indicators	Measurement scale	Data type
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Bank performance	Dependent variable	<ul style="list-style-type: none"> Return on Assets Return on equity Net Interest margin 	Measurement scale of 1-5 1-Strongly agree to 5-Strongly disagree	Qualitative and Quantitative data
Interest rates	Independent variable	<ul style="list-style-type: none"> Volatility 	Measurement scale of 1-5 1-Strongly agree to 5-Strongly disagree	Qualitative and Quantitative data
G.D.P.	Independent variable	<ul style="list-style-type: none"> Net interest income Loan losses improvements Operating cost 	Measurement scale of 1-5 1-Strongly agree to 5-Strongly disagree	Qualitative and Quantitative data

RESEARCH METHODOLOGY

Research design

(The research designs used in this study were descriptive and diagnostic. Descriptive research design is a form of investigation that is based on scientific principles. Data is collected and examined to characterise current events, terminology, or relationships relevant to a problem in a certain subject (Mugenda and Mugenda, 2003). According to (Kothari 2004), a descriptive research design is focused on defining the characteristics of a single person or group. On the other hand, the diagnostic research design is focused on determining how frequently something occurs or how it relates to something else.

Target population

According to (Kothari 2004), a population is a complete enumeration of all the objects under research study; it comprises all of the items under examination. According to (Mugenda and Mugenda, 2003), a population is essentially a group of humans, events, or things that have common characteristics. (Museum of the Arts, 2009) Defines target demographic as an indicator of the study's target and accessible population and attempts to define and limit the study's scope.

The target population for the study was limited to 750 people. Table 2 shows The population:

Table 2 Population

Category	Frequency	percentage
Top managers	45	6%
Middle level managers	90	12%
Lower level managers	540	72%
Customers	75	10%
Total	750	100%

The population for this study included the: chief Executive, credit managers, finance officers, accountants, employees, and customers. The financial statements of this bank also constituted a unit of analysis and observation of the study, respectively.

For a descriptive studies according to (Mugenda and Mugenda, 2008) at least 10%-20% of the target population is enough. This study aimed for a sample size of 120 respondents. The study selected 120 respondents using a simple random selection procedure, as indicated below.

Table 3 Sample size

Categories	Respondents	Percentage
Bank Branch managers	2	2%
Credit managers	6	5%
Finance Officers	24	20%
Accountants	12	10%
Employees	42	35%
Customers	34	28%
Total	120	100

Data collection Instruments

The primary and secondary data were used for this research. (Kothari, 2004) define primary data as new and first-time data collected and thus original data. (Kothari, 2004) The research used questionnaires to gain basic information on views by several respondents regarding the effects on bank performance of macroeconomic variables. The primary data for the study was obtained from the top managers, middle-level managers, employees, and customers. The study's questionnaires contained open questions and close-end questions for respondents to find the appropriate answers based on their research goals. These questionnaires were chosen to reduce the time required to complete the survey and collect qualitative and quantitative data. In addition, (Kothari 2004) defines secondary data as information collected already and passed over by a statistical procedure by another person. Secondary data of this research study have their origin from books, journal articles, newspapers, websites, C.B.K. reports, financial cooperative bank reports dated from 2015 to the first quarter of 2021, and World Bank reports.

Data collection procedure

The data collecting process is a systematic procedure for acquiring and quantifying information on variables of interest in order to address research questions, test hypotheses, and evaluate outcomes (Kabir, 2016). Open and closed-ended questionnaires were used for this study. The target respondents were: a branch bank manager, Credit Manager, Finance Officer, Accountants, Employees, and Customers. The respondents were selected mainly because they are directly or indirectly involved in managing the organisation's affairs and therefore have a broader understanding of its affairs. Closed-ended questions consist of more structured responses, which will help bring out tangible recommendations. Ratings on various attributes will be tested using closed-ended questions, which will help reduce reactions related to obtaining information that is varied.

The additional information will be captured using open-ended questions, which will aid in getting a better understanding of the effects of macroeconomic variables on bank performance. The research instruments will be administered by the researcher to the target respondents. The researcher will keep a record of the questionnaires to ensure that all issued questionnaires are returned. The study also utilised secondary data ranging from the period 2016 to the first quarter of 2022.

Data analysis and presentation

Data analysis is the process of transforming and modelling all collected data in order to elicit important information, recommendations, and conclusions that may be used to aid in decision-making (Vicario 2013). Data analysis entails various techniques and methods; the study employed both quantitative and qualitative data to determine the relationship between variables from obtained data by examining the simultaneous effects of independent variables on dependent variables, macroeconomic variables, and bank performance, respectively. The data from this study were analysed using an excel spreadsheet and SPSS version 21 of the Statistical Package for the Social Sciences (SPSS). Mean, standard deviation, frequencies, and percentages were used as descriptive statistics. Also, the study employed inferential statistics such as regression analysis to test the relationship between the study variables. Regression analysis is used to determine whether an independent variable predicts a given dependent variable (Zinkmund, 2003). Data for the study was presented using graphs, tables, and pie charts, which will help understand and summarise the study's findings. The study employed the multiple linear regression below.

Ethical considerations

Ethical Research considerations refer to norms and standards which are supposed and expected to be adhered to before, during, and after research (Mugenda and Mugenda, 2013). Stipulated professional standards and ethical considerations govern all researches. The study ensured confidentiality, privacy and anonymity of information gathered from the respondents. The research also provided for a voluntary participation of the respondents. The respondents' names, location, and way of life were not captured in the questionnaire; neither was any information obtained from the respondents disclosed to a third party. This research was mainly carried out for academic

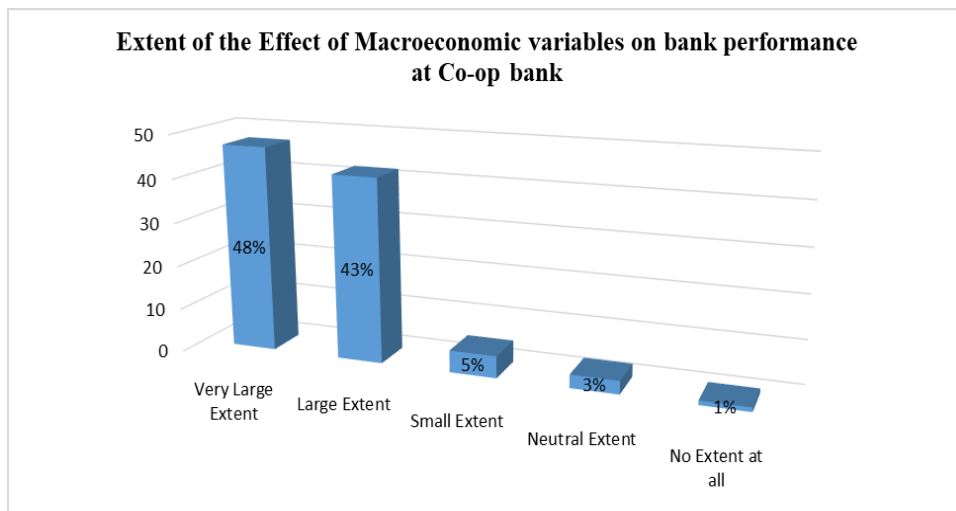
RESEARCH FINDINGS AND DISCUSSION

Effects of macroeconomic variables on bank performance at Co. Bank

In this section the study sought to determine the extent to which the respondents perceived macroeconomic variables affect bank performance at Co. Bank.

To determine the effects of macroeconomic factors on bank performance at Co. Bank, respondents were asked to indicate the extent to which they perceived macroeconomic variables have effects on bank performance. The study findings showed that 48% of the respondents indicated that macroeconomic variables affect bank performance to a very large extent. The study further showed that 43% of the respondents indicated that macroeconomic variables affect bank performance to a large extent, 5% to a small extent, 3% had neutral responses and 1% indicated that macroeconomic variables have no effect on bank performance at all as shown in Fig 2

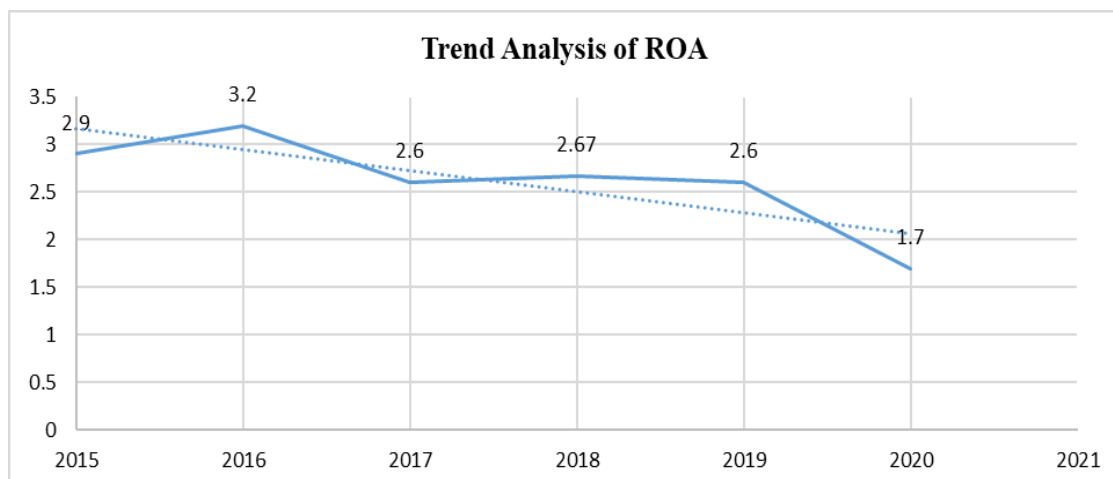
Fig 2 Extent of the Effect of Macroeconomic Variables on performance at Co. Bank



Trend analysis of ROA

Fig 3 illustrates a trend analysis of ROA of banking sector within the economy under the period of study.

Fig 3 Trend analysis of ROA



Source: (CBK 2020)

ROA was computed using the banks total net income and dividing it by banks total assets per year from 2015- 2020. ROA is essential to a business as it captures the business performance, gives investors ideas of how the firm is using money at their disposal to generate net income. When ROA is high, it means the firm is performing better. That is, the firm is earning more cash on less investment.

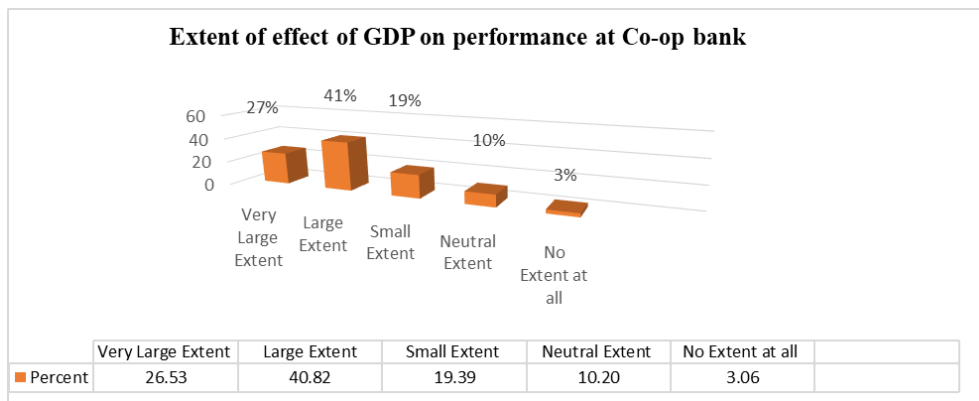
Effects of GDP on bank performance at Co. Bank.

This section provides a descriptive statistic for both primary and secondary data on the effects of GDP on bank performance.

Extent of the effect of GDP on bank performance at Co. Bank

To determine the effect of Gross domestic product on the performance of Cooperative Bank of Kenya limited, respondents were asked to indicate the extent to which they thought the GDP had affected Co. Bank performance. The results showed that 27% indicated that affects bank performance of Co. Bank to a Very large extent, 41% to a large extent 19% to a small extent, 10% were not sure thus indicated neutral extent and 3% indicated that GDP does not affect bank performance of Co. Bank.

Fig 4 Extent of the effect of GDP on Bank performance at Co. Bank



Respondents were also asked to respond to different statements on how GDP affects bank performance. According to Table 4, respondents agreed with the statement, Economic growth of a country plays an important role in determining bank performance (M=2.35, SD= 0.87). The survey also found out that a majority of the respondents agreed with (Mean = 2.22, Std. Deviation = 0.71), that banking industry contributes to the Gross Domestic Product which in return increases economic growth. Respondents with (Mean = 2.27, Std. Deviation = 0.83), agreed to the statement that GDP captures improvements and downswings of business cycles thus affects bank performance. Respondents with (Mean = 2.14, Std. Deviation = 0.53) agreed to a large extent with the statement that Governments should develop policies that create favorable conditions which will increase banking sector profitability. And finally respondents with (Mean = 2.34, Std. Deviation = 0.90) were of the opinion that Gross Domestic Product has major effects on non- performing loans rate. The standard deviation of the study showed the variation of responses from the mean.

Table 4 Effects of GDP on Bank performance

Statements	N	Mean	Standard Deviation
Economic growth of a country plays an important role in determining bank performance.	98	2.35	0.87
Banking industry contributes to the Gross Domestic Product which in return increases economic growth.	98	2.22	0.71
GDP captures improvements and downswings of business cycles	98	2.27	0.83
Governments should develop policies that create favorable conditions which will increase banking sector profitability.	98	2.14	0.53
Gross Domestic Product has major effects on non- performing loans rate.	98	2.34	0.90

Trend analysis of GDP

The research further explored secondary data and provided descriptive statistics on the effect of GDP on bank performance. The descriptive statistics entails number of observations, mean, standard deviation, skewness, and kurtosis, minimum and maximum values. Table 4.5 gives a breakdown of secondary data descriptive statistics for the GDP changes within the economy under the period of study. The average GDP stood at 5.53 while the standard deviation was at 0.55, kurtosis at -0.84, skewness at 0.049 while 4.80 and 6.30 were the minimum and the maximum recorded GDP respectively.

Table 5 Descriptive statistics for GDP

Descriptive statistics							
Obs.	Mean	Std. Deviation	Skewness	Kurtosis	Minimum	Maximum	
	Statistics	Statistics	Statistics	Statistics	Statistics	Statistics	
GDP	7	5.53	0.55	0.049	-0.84	4.80	6.30

Source Research data (2021)

Effects of interest rates on bank performance at Co. Bank.

The section provides for tabulated primary and secondary data on the effects of interest rates on bank performance. The standard deviation of the study showed the variation of responses from the mean. Table 6 provide a further illustration of the findings from the respondents concerning the effects of interest rates on bank performance at Co. Bank.

Extent of the effect of interest rate on bank performance at Co. Bank

Table 4.6 shows findings of the effects of interest rates on bank performance. The findings of the study showed that respondents agreed that Bank performance is an important function of Interest rate fluctuation thus proficient and skillful regulations and administrative structures and Bank lending rate policies should be fortified (Mean = 2.37, std. deviation = 0.87). The respondents agreed that Bank deposits, interest rate and lending Interest rate significantly affects bank performance (mean = 2.39, std. deviation = 0.93). According to study findings, respondents agreed to the statement that Banks should monitor their interest on deposits most often and carefully because it has significant effects on Bank performance (mean = 2.31, std. deviation 0.86). The study found out that most of the respondents were of the same opinion to the statement that an increase in real interest rate strengthens the profitability of banks (mean = 2.50, std. deviation = 1.02). Respondents agreed to the statement that the Central Bank of Kenya should tighten up the monetary policies with an intent to control interest rates (mean = 2.60, std. deviation 1.18).

Table 6 Effects of interest rates on bank performance

Statements	N	Mean	Standard deviation
Bank performance is an important function of Interest rate fluctuation thus proficient and skillful regulations and administrative structures and Bank lending rate policies should be fortified.	98	2.37	0.87
Bank deposits, interest rate and lending Interest rate significantly affects bank performance.	98	2.39	0.93
Banks should monitor their interest on deposits most often and carefully because it has a negative effect on Bank performance.	98	2.31	0.86
An increase in real interest rate strengthens the profitability of banks.	98	2.50	1.02
The Central Bank of Kenya should tighten up the monetary policies with an intent to control interest rates	98	2.60	1.18

Trend Analysis of Interest Rates

Table 7 gives a breakdown of secondary data descriptive statistics for the annually Interest rates fluctuations within the economy under the period of study. The average interest rate stood at 9.00 while the standard deviation was at 1.66, kurtosis at -0.89, skewness at 0.077 while 7.00 and 11.50 were the minimum and the maximum recorded annual interest rates respectively.

Table 7 Descriptive statistics for interest rates

Descriptive statistics							
	Obs.	Mean	Std. Deviation	Skewness	Kurtosis	Minimum	Maximum
	Statistics	Statistics	Statistics	Statistics	Statistics	Statistics	Statistics
Interest Rates	7	9.00	1.66	0.077	-0.89	7.00	11.50

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**Summary of the findings**

The study's primary objective was to ascertain the impact of macroeconomic factors on Co-operative Bank of Kenya Limited's performance. The following particular goals were explored in the study: To examine the influence of G.D.P. on Co. Bank's financial performance, to determine the effect of interest rate changes on Co. Bank's financial performance. To ascertain the influence of the actual exchange rate on Co. Bank's financial performance, To examine the effect of inflation on Co. Bank's financial performance. To examine the influence of loan expansion on Co. Bank's financial performance.

The study was conducted using a descriptive research design. The researcher analyzed both primary and secondary data in order to ascertain the effect of macroeconomic variables on bank performance. The study collected primary data from a population of 750 people, from which a random sample of 120 respondents was drawn using a simple random sampling technique. The secondary data collection period was from 2015 to 2021. Microsoft Excel 2013, and SPSS version 21 were used to evaluate secondary data. The study's data analysis was mostly performed using inferential and descriptive statistics, with the results provided in the form of tables and figures to make the raw data more comprehensible.

Additionally, the study conducted a regression analysis, which revealed that 96.3 percent of the variance in bank performance was explained by macroeconomic variables ($R^2 = .963$), with a P-value < 0.05 indicating that the data was statistically significant.

Effect of GDP on bank performance at Co. Bank

Concerning the effect of GDP on bank performance at Co. Bank Limited, the survey discovered that the vast majority of respondents were of the opinion that GDP has a significant influence on bank performance (Aggregate mean 2.26, Std. deviation 0.77). The secondary data revealed that the GDP remained steady during the course of the study period, with (Mean 5.53, Std. Deviation 0.55). At the 0.05 level of significance, the findings of the regression analysis reveal that GDP has a negatively negligible effect on bank performance (ROA), using the Co. Bank as a case study. This demonstrates that the GDP has an indirect effect on bank performance. Increased economic growth (as measured by real GDP) will result in increased demand, which will in turn result in an increase in the supply of money from banks, which will in turn result in improved bank performance. Increased economic growth indicates increased demand for financial services, which in turn increases bank profitability, non-interest earnings, and cash flows, ultimately improving total bank performance.

Effects of Interest rate on bank performance at Co. Bank

The second variable included in the analysis was interest rates. The researcher made remarks in form of statements about interest rates in order to evaluate the extent to which they have an influence on the performance of the Co. Bank. An overwhelming majority of those who responded believed that interest rates have a significant effect on bank performance (Aggregate mean 2.43, Std. Deviation 0.97). According to secondary statistics, the interest rate did not remain steady during the time period under consideration (Mean 9.00, Std. Deviation 1.66). According to the results of the regression analysis, the interest rate has a positive and statistically significant link with bank performance at the 0.05 level of significance. Interest rates have a direct influence on the performance of financial institutions. The findings are consistent with those of Kader and Leong. According to (Kader and Leong, 2009), when the market interest rate rises, this increases the cost of conventional loans, causing clients to look for other, less expensive forms of financing, this has a negative effect on overall bank performance and its profitability.

The study concluded that, increased economic growth (as measured by real GDP) results in increased demand for money from banks, which results in enhanced bank performance. Increased economic growth indicates increased demand for financial services, which benefits banks' profitability, non-interest earnings, and cash flows, as well as their overall performance. Gross Domestic product influence bank performance to a large extent.

Because high interest rates increase the cost of conventional loans, customers will seek for other financing alternatives that are relatively inexpensive. This has a direct effect on bank performance. Banks should diversify their portfolios to protect themselves against interest rate risk. This enables them to earn larger returns while maintaining a lower portfolio risk. Fluctuations in interest rates affect bank performance both positively and negatively and to a large extent.

Recommendations

Based on the study findings, the study recommends that, with the impact of Covid-19, the government should create an enabling environment for financial institutions to expand their financial capacity and ease the burden of restrictive policies that impede bank performance.

Interest rates cannot be ignored in their influence on bank performance. Commercial banks should devote additional resources to monitoring interest rate fluctuations on the financial assets they hold. This is critical because interest rates affect the future value of financial assets, and management can make informed investment decisions by monitoring. Additionally, commercial banks might diversify their financial assets to protect themselves from interest rate fluctuations.

Recommendation for further research

The study analyzed only four macroeconomic variables; these are external variables that account for a relatively modest proportion of all factors affecting bank performance. Other variables, such as internal factors and external factors such as money supply, should be employed to ascertain the effects of macroeconomic variables on bank performance with the assistance of intervening variables. A study should be done on the Post-Covid-19 difficulties confronting commercial banks and the impact of macroeconomic variable changes on bank performance.

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