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ABSTRACT

This study examined the effect of mobile credit management on the financial performance of commercial banks in Kenya. This inquiry employed a descriptive survey research design. Six commercial banks were represented by significant branches of Tier 1 commercial banks in Mombasa CBD that offer mobile credit services to their consumers. The study used 71 respondents from six selected commercial banks. The study collected data through the use of questionnaires. Permission was also requested from the commercial banks in the Mombasa County under study to collect data. The Statistical Package for Social Sciences (SPSS) version 23 was used to assemble and analyze the data. The data were evaluated using descriptive and inferential statistics. The study discovered that all independent variables had a p-value less than the 0.05 level of significance, indicating that there is a substantial association between mobile credit management and commercial banks' financial performance in Kenya. The study confirmed that credit approval is a critical process that must be completed each time a member requests a loan in order to avoid extending credit to clients who are financially unable to repay the credit borrowed in accordance with the terms and conditions stipulated, taking into account key credit appraisal characteristics such as the member's credit history, the client's disposable income, collateral substitutes, and other loan delinquencies. The study recommended that banks should monitor and carry out thorough analyses of all applications for mobile credit and advances, including credit history, before applicants receive credit approvals to reduce their non-performing credit to a minimum by increasing the focus on the ability to repay. Commercial banks in Mombasa need to strengthen their mobile credit customer assessment procedures in order to improve their financial performance. Through customer assessment approaches, Kenyan commercial banks would be able to identify loan worth customers and therefore reduce default levels and their un-performing loans thus enhance their financial performance.

Key Words: *Mobile Credit, Approval Processes, Risks Identification, Loan Procedures, Risk Analysis*

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INTRODUCTION

Financial performance is defined as the extent to which a corporation achieves its financial objectives in the context of the company's activities and policies expressed in monetary terms (Eshna 2016). The financial success of a firm has a considerable influence on the overall performance of the company as assessed in monetary terms, according to the World Bank. The emphasis on financial performance is placed on aspects that are directly related to the financial report, rather than on the financial report itself (Oloo, 2019).

Several factors, including external and internal variables, have an influence on the financial performance of commercial banks, according to Ongore (2018). Specific/microeconomic factors and macroeconomic (external) variables are the two types of variables that may be classified. Generally speaking, macroeconomic/external factors in banking are variables that have an impact on a bank's profitability across a country or sector, such as currency exchange rate risk and interest rate risk. Despite the fact that these variables are out of the control of the bank's management, they have an influence on the bank's earnings. Specific bank features such as liquidity risk and credit risk, on the other hand, affect the performance of a bank and are mostly controlled by internal decisions made by the board of directors and management. Microeconomic considerations include the following: (Waweru, 2017).

Overall performance of a bank is described in terms of profitability, efficiency, competitiveness, concentration, and productivity, among other things. The ability of banks to withstand negative shocks and contribute to the stability of the financial system must be improved, as well as their willingness to experiment with new products and services (Athanasoglou, 2018). When it comes to the present financial climate, one of the most talked-about subjects is the profitability of the banking industry. Financial intermediation and the conversion of deposits into productive investments are important economic functions performed by the banking sector, which helps to the expansion of the economy and the creation of new jobs. Money for capital investment is obtained through banks, which are the primary sources of funds. The stability of the financial system is the most important aspect to consider. This has resulted in the banking industry's profitability being the single most important determinant in the country's economic progress. Traditionally, profitability in the banking business has been connected with financial strength (Gordy, 2019).

Commercial banks in Sub-Saharan Africa (SSA) have been characterized by good financial performance during the previous two decades, according to the World Bank. With an average return on assets (ROA) of 2 percent, banks in the United States are more profitable than their counterparts in other regions of the world (Flamini, McDonald & Schumacher, 2019). The willingness of SSA to take on high-risk initiatives was cited as a contributing factor to the company's financial success. One such element contributing to the high profitability of the region is the significant imbalance between demand and supply for financial services. A small number of banks in comparison to demand for financial services has resulted as a result, and as a result, there is less competition and banks charge high interest rates in Sub-Saharan Africa. Observe the banking situation in East Africa, where the vast majority of banks are privately held and have enormous market power (Ngure, 2017).

The CBK (2020) demonstrated that the financial performance of commercial banks was on a decreasing trajectory. The return on equity (ROE) of these banks was 29.8 percent in 2016 and 28.9 percent in 2017, according to the trend. Furthermore, the rate of decline increased to 26.6 percent in 2018, 25.2 percent in 2019, and 24.5 percent in 2020, from 24.4 percent in 2017. This demonstrates that the return on equity (ROE) has been constant over time, showing that the firm has maintained consistently poor financial performance over time.

The Kenyan banking system is still sensitive to financial risks arising from the country's micro- and macroeconomic contexts, according to the latest available data. Financial risks including as liquidity, credit risk, interest rate risk, and exchange rate risk all threaten the financial viability and long-term existence of the business, posing a substantial challenge despite the sector's continued expansion and expansion (Kithinji, 2018). During the financial year that ended on June 30, 2020, commercial banks in Kenya recorded a net surplus of KShs 41,530 million, compared to a net surplus of KShs 26,138 million during the financial year that ended on June 30, 2019. The excess is included in the General Reserve Fund, which is a separate account. The Bank's operational surplus before unrealized gains was KShs 17,055 million for the financial year that ended on June 30, 2020, before taxes (2019: KShs 21,016 million). KShs 22,308 million (2019: KShs 23,347 million) in interest income was down from KShs 23,347 million in interest income owing to reduced rates given on foreign deposit placements and a decrease in fixed income returns, which were both affected by global monetary policy easing cycles (CBK, 2020).

KShs 8,452 million (2019: KShs 7,005 million) was reported as a fair value gained on fixed income securities by Kenyan commercial banks (CBK, 2020). Bank assets increased to KShs 1,350,434 million (2019: KShs 1,239,158 million), primarily due to net inflows from development partners and changes in the value of securities held for monetary policy implementation. Net inflows from development partners accounted for a majority of the increase in assets. Deposits from banks and the government rose to KShs 1,154,419 million (2019: KShs 1,080,683 million) as a consequence of a rise in deposits from banks and the government, which was mostly attributable to profits from the COVID-19 pandemic relief effort (CBK, 2020).

A tripling in loan loss provisions, mostly due to the defaulting of mobile phone-based loans, impacted KCB group's profits in 2019, with the overall amount of non-performing loans increasing by 90 percent as a result of the tripled provisioning. Equity Group handled almost 3.5 million loans worth Kshs.30 billion via its mobile platform (Equitel), accounting for 84 percent of all loans issued by Kenyan banks in the first quarter of 2019. With the mobile loans provided by Equity Group, a recovery percentage of 98 percent was achieved. (TransUnion, 2020 Kenya Market Analytics Report).

Approximately 20 billion shillings in loans were disbursed by Absa Bank Kenya in 2019 via its Timiza mobile application, which had almost 4 million users as of December 2019. According to Absa Kenya, a total of 3.2 million loans have been granted to Kenyans as of December 2019, with the number anticipated to rise as a result of the additional products offered under the new brand. Non-performing loans at the banks rose to Sh14.3 billion in 2019, up from Sh10.9 billion in the previous year. MCo-op Cash Mobile Wallet, a cooperative bank organization, said that 5.6 million clients had enrolled and that loans totaling more than Sh16 billion had been disbursed during the first quarter of 2020 (TransUnion, 2020 Kenya Market Analytics Report).

Problem Statement

Commercial banks provide liquidity to both the lender and the borrower at the same time, which is a rare occurrence (Gul, Faiza and Khalid, 2016). In order to boost profitability, banks must employ loan administration techniques such as using credit information bureaus before deciding whether to accept or deny loan requests (Ogboi & Unuafe, 2015). If a large number of nonperforming loans (NPLs) exist, this implies that the bank's credit management is insufficient (Ally, 2017).

In addition, the development of mobile credit products brought up new opportunities for both borrowers and financial institutions, because the fundamental need for receiving a loan is to make continuous deposits of money with a specific lender on a consistent basis. The interest rate for credit is widely believed to be significantly lower than the interest rate charged by traditional credit sharks, also known as shylocks, who were previously the only option for people who work in the informal sector because they lacked collateral or formal evidence of consistent income that would allow banks to accept credit claims on their behalf (Al-Jabir, 2019).

Mobile loans account for up to 75 percent of loan accounts offered by Kenya's banking sector, according to the Kenya Market Analytics Report (2020). The total number of mobile loan borrowers increased to 10.2 million in Q1 2020 from 6 million in Q4 2019, with an average of 9 mobile loans per borrower, according to the Kenya Market Analytics Report (2020). (11 in Q4 2019). Over the three-year period from 2016 to 2018, 2.2 million Kenyans defaulted on digital loans that they had taken out between 2016 and 2018. A little more than half (49 percent) of digital credit borrowers with nonperforming loans had loans with outstanding balances of less than 1000 Kenyan Shillings, according to the study.

50 percent of digital borrowers in Kenya returned their loans late in 2019, with 12 percent defaulting, according to research published by the Consultative Group to Assist the Poor (CGAP) in 2019. This had a key role in the dismal financial performance of commercial banks in recent years. According to the findings of the study, many digital lenders do not consult with or report to credit reporting agencies as thoroughly or as frequently as they should, despite the fact that they are required to do so by law. As a result, the purpose of this research was to examine the impact of mobile credit management on the financial performance of commercial banks in Mombasa.

Objectives of the study

The study was guided by the following objectives;

- To examine the influence of mobile credit approval process on the financial performance of commercial banks in Mombasa.
- To analyses the influence of mobile credit risks identification on the financial performance of commercial banks in Mombasa.
- To determine the influence of mobile loan monitoring process on the financial performance of commercial banks in Mombasa.
- To investigate influence of mobile credit risk analysis on the financial performance of commercial banks in Mombasa.

LITERATURE REVIEW

Financial Intermediation Theory

According to Gurley and Shaw's (1960) theory of financial intermediation, banks serve as a "go between" for surplus and deficit units by acting as a connection between them. The banks receive deposits from their clients, who trust them with their money, and then use these monies to lend to borrowers who need them. A byproduct of this process is that capital is transformed and its social worth rises. This is done in order to ensure that these monies are put to the most effective use possible.

According to this idea, banks perform a variety of tasks, including capital transformation and acting as middlemen between savers and loan borrowers (Bert & Dick, 2016). During the year 1976, Benston and Smith established a transaction costs hypothesis, which was primarily concerned with the effect of financial intermediation technologies (Bert and Dick, 2016). In this perspective, mediators are a group of individual creditors and debtors who pool their resources and use transactional technology to maximize profits from their collective economies of scale. (Alexandru & Marius, 2009).

Credit risk theory

Melton published his first paper on credit risk theory in 1974. According to the theory, a default event results from a firm's asset development, which is represented by a diffusion process with constant parameters, leading to the accumulation of debt. When the borrower's economic situation makes it economically advantageous for him to execute the default option, the default option is seen as a put option.

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It states that management should keep track of all relevant information, including continuous creditworthiness screening of the borrower, and verify that the borrower complies with the terms of the contract. Also included is an explanation of how financial institutions, such as commercial banks, may cope with uncertainties that emerge over the course of the loan servicing term (Higgins, 2009). A recent study by Ibrahim (2014) found that money loaning continually entails certain characteristics of hazards associated with circumstances that arise as a consequence of the inability to fulfil loan obligations when they become due.

Modern Portfolio Theory

Markowitz was the first to develop the modern portfolio theory, which was in 1952. Investing according to MPT implies that investors should diversify their portfolios in order to maximize profits while simultaneously minimizing risk in the portfolio (Markowitz, 1952). According to Modern Portfolio Theory, diversification is accomplished via the allocation of resources to securities that offer the highest possible returns with the lowest amount of variation in their values. In addition, Markowitz says that the assets with the highest expected returns are not always the equities with the lowest volatility in their performance. In light of the intercorrelation of the returns of the securities, diversification is unable to entirely eliminate all variance, and as a result, the portfolio with the highest projected returns is not always the portfolio with the lowest variance (Markowitz) (1952).

Modern portfolio theory emphasizes the idea that risk is an intrinsic component of bigger rewards in order to explain how risk-averse investors may construct portfolios in order to optimize or maximize projected return based on a given degree of market risk. Another claim of the theory is the fact that the concept of credit risk management is founded on the principle of working capital management, which is another assertion of the theory. Having a strong working capital management policy is critical in business, and the firm must ensure that it has an acceptable amount of working capital at hand at all times. A company's profitability can be increased by obtaining funds that have accrued in working capital as quickly as feasible (Nzuve, 2013). The authors of Bai, Liu, and Wong (2009) believed that modern portfolio theory was primarily concerned with determining whether or not it was possible to construct an efficient portfolio that maximized the returns on a particular investment. According to this idea, the interest rates imposed by a credit institution have a dual function in that they are used to both choose potential borrowers and affect the behavior of those who have already borrowed money. It is as a result of this that interest rates have an influence on the nature of the transaction and do not always entirely clear the market. Both of these consequences are assumed to be driven by the lack of accurate information available in credit markets (Woodford, 2011).

Empirical Review

Mobile credit approval process

In a study commissioned by the Central Bank of Iraq, the credit approval mechanism was examined in greater detail (2019). According to the findings of the study, the lending process begins with a comprehensive analysis of the borrower's creditworthiness, which is defined as his or her capacity and desire to repay the loan facility. Furthermore, the findings of the study suggested that loan distribution should take place after the signing and delivery of all relevant documents to the bank. Once the loan has been approved, these documents serve as the primary safety for the financial institution. Loan agreements, which are legally binding documents, must be signed by both the bank authorities and the borrower prior to the loan being disbursed to them. After borrowers get their credit facilities, the monitoring method begins in order to ensure that the financial institution does not suffer from non-performing loans (NPLs).

According to Chilukuri and Rao (2018) study conducted to determine the efficacy of credit evaluation and approval procedures, as well as loan review procedures. According to the findings of the study, credit risk is the most important risk faced by many commercial banks throughout the world. According to the findings of the survey, many financial institutions are concerned that some of their clients would fail to pay on time or at all. The consequence is that many banks must periodically evaluate each loan in order to determine the borrower's current and long-term ability to make interest and principal payments on the loan. According to the findings of the study, the loan review system should strive to reduce the amount of unpaid interest as well as the proportion of non-performing loans in the books of account. Those who borrow money must be able to complete applications, go through processing, and get their money in a straightforward and predictable manner. In order to maximize loan recovery, banks with a high proportion of non-performing loans should concentrate their efforts.

Maina (2016) conducted a research on the influence of loan approval procedures on the financial performance of commercial banks in Mombasa: a survey of selected banks in the Nairobi metropolitan area, which was published in 2016. After conducting an investigation, it was discovered that loan approval processes were exceptionally effective in protecting commercial banks from exposures to negative credit transactions with ineligible customers. Several factors, including credit standards regulations and interest rates, were shown to have a substantial impact on the rate and volume of borrowing in commercial banks, according to this study. According to the findings of the study, loan approval procedures are an important line of defense for commercial banks in their fight against fraudulent transactions. Furthermore, the study comes to the conclusion that higher interest rates cause a halt in borrowing, but that as a result, commercial banks see if favorable financial performance in terms of revenues. Credit policy guidelines are defined by a commercial bank when it conducts all transactions linked to lending services, and professionals, consumers, and scholars all provide comments on the optimal policy direction. This is the result reached by the research. A worldwide standard for loan approval procedures in commercial banks is recommended by the research, which calls for its implementation. Furthermore, financial institutions should be able to communicate information about their clients with other participants in the market as well as with government authorities in order to guarantee that lending operations run smoothly. As a final recommendation, the research encourages the use of innovative tactics in the development of loan products, particularly in the face of interest rate capping.

When Ochieng (2019) conducted a research to determine the factors that influence the financial performance of commercial banks, he discovered that loan evaluation is extremely essential in determining the financial performance of commercial banks. In his words, banks are seen as enterprises that originate as a result of market imperfections, and as a result, they introduce a certain degree of inefficiency relative to ideal competitive outcomes, which can have an impact on the financial performance of these institutions. It was stated that, through loan appraisal, banks are able to mitigate the effects of changing interest rates on profits by altering their business methods, such as increasing fee income or revising their loan loss reserves, among other things. The bank's management and its entire staff, he concluded, should conduct a proper appraisal of effective interest rates on loan assets granted to customers, as well as effective asset allocation, in order to improve financial performance through increased income interest margin, return on equity, and dividend payout ratio to shareholders, as well as improved financial performance. But the analysis revealed that commercial banks have failed on several occasions to select the most appropriate clientele for loan advance purposes.

Wondimagegnehu (2018) conducted research on the factors of non-performing loans. The research examined commercial banks in Ethiopia and discovered that loan acceptance is based on a

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variety of factors. Based on the concept that credit advances should carefully balance the reduction of risks with the maximization of earnings, while at the same time retaining a competitive advantage over competitor organizations.

Ibtissem and Bouri (2016) conducted a research in Tunisia on credit risk management in microfinance. The research notes that before to extending loans to debtors, paperwork is performed. Lending institutions need a variety of papers to expedite loan processing. These papers are used as collateral to secure the advance of the credit facility.

Githinji (2019) examined the connection between commercial banks' credit rating methods and small and medium-sized businesses' access to financing. A questionnaire was used to gather data from the proprietors of small and medium-sized businesses. The data were analyzed using a statistical programmer for social sciences. The connection between SME credit access and credit score was determined using multiple regression analysis. The research showed that there is a substantial and robust connection between loan availability and credit rating for SMEs. The research discovered many advantages of credit scoring, one of which is increased decision-making accuracy. The accuracy is due to the unfavorable selection reduction, which results in a more accurate evaluation of the 23 customers' applications. The research suggested a variety of methods for credit evaluation before to and after loan disbursement to consumers.

According to a research by Sonali (2015), the senior management team of commercial banks should aggressively execute credit risk management policies that have been authorized by the board of directors. Implementation entails ensuring that the bank's credit operations are consistent with its stated strategy, that established processes have been developed and executed, and that loan review and approval duties have been allocated correctly and explicitly.

According to Marcucci and Quagliariello (2016), commercial banks should practice responsible credit management via the creation of credit appraisal and management authority. These authorities perform a variety of tasks, including the approval of credit applications, the renewal of existing credit facilities, and the modification of credit facility conditions and terms. These authorities should have clearly defined credit risk management duties and responsibilities.

The Central Bank of Kenya's Risk Management Guideline (2016) reaffirms the need of good bank management with an extensive system to evaluate loan quality on a daily basis. Additionally, it states that credit policies should explicitly outline credit appraisal, approval, monitoring, and recovery procedures and that the quality of management in a financial institution has an inverse relationship with credit risk, with insufficient governance structures being blamed for increased risk on loan quality.

According to Mwaurah (2016), commercial bank crises are mostly the result of insufficient management skills, and that competence and management accountability play a critical role in determining a financial institution's risk appetite. Additionally, the research asserts that inadequate credit management procedures result in substandard lending, resulting in an inflated portfolio of delinquent loans.

According to Owino (2019), in his study on the effects of lending policies on loan defaults on commercial banks, the purpose of loan appraisal is to determine the likelihood that the loan asset to be offered to customers will have a higher interest margin, which will result in increased return on assets and, consequently, improved financial performance of the commercial banks. Assessing the borrower's requirements and financial situation determines the borrower's character, capacity, collateral, and capital among other things. Before extending any loans, interested lenders would want the loan application to have contributed from their own assets and to have taken on personal financial risk in order to build the firm. The study discovered that information asymmetry is a major hindrance to loan appraisal, as it makes it impossible to fully assess the loan applicant due to hidden information and history of the borrower that could have assisted in proper appraisal of the client prior to loan advancement, thereby avoiding loss of returns on loan assets offered to the market.

Mobile credit risks identification

Remy and Njeru (2020) published a paper on the influence of credit risk identification on the financial performance of commercial banks in Burundi. According to the findings of the study, good risk identification contributes significantly to the achievement of bank objectives, and the presence of an effective risk monitoring system of risk assessment contributes to the achievement of bank objectives. Banks should be analyzing and recording mitigation activities for progressing the risk monitoring and the implementation of core risk control procedures in the operations of the bank while the bank instructs workers on how to decrease losses, according to the International Banking Standards Association. A set of recommendations was made, which stated that in the banks of Burundi, the roles and responsibilities associated with risk identification should be clearly defined; the banks of Burundi should have an effective risk tracking system to ensure financial performance; and the banks of Burundi should improve the adequate and effective monetary policies and procedures that assist in identifying risks.

Gakure (2017) examined the connection between credit risk management techniques and the performance of unsecured loans made by commercial banks in Kenya. The target audience consisted of top-level executives, middle-level executives, and lower-level executives. The findings showed that the identification of hazards has only a little effect on the performance of non-secured loans, compared to secured loans. A substantial effect on the performance of unsecured loans in Kenya is found to be exerted by branch managers' inspections, according to the results of the study. It has been discovered that branch manager inspections have a substantial effect on the performance of unsecured loans, whereas risk identification procedures have only a little impact on the performance of non-secured loans. It was found that risk measurement has a large effect on loan performance, and that risk analysis and assessment have only a small impact on the performance of unsecured loans to a considerable degree, in accordance with the results of the study.

Mobile loan monitoring process

Moti (2018) conducted a study to determine the efficacy of a credit management system in terms of loan performance. The microfinance industry in Kenya was the subject of the research. According to the findings of the research, microfinance institutions (MFIs) in Kenya have a high rate of nonperforming loans. As a result, their viability and financial sustainability have been severely hampered. It was discovered that all of the assessed microfinance institutions it has in place arrears tracking systems. These systems guarantee that debt collection policies are successful and adhere to the law. The research also discovered that, despite the presence of arrears monitoring systems among MFIs, these institutions continued to suffer from significant non-performing loans (NPLs). It is implied that these methods are either inefficient at reducing NPLs or that they are not properly implemented, or that they are both.

Kenyan commercial banks' profitability was examined in Kithinji's (2019) study of the impact of credit monitoring on their bottom lines. For the years 2014 to 2018, data on the quantity of credit extended, the degree of non-performing loans, and earnings were gathered and analyzed. The findings showed that the quantity of credit extended or the number of non-performing loans made by commercial banks had little effect on the majority of their profits, indicating that other factors besides credit and non-performing loans have an impact on profitability.

Mobile credit risk analysis

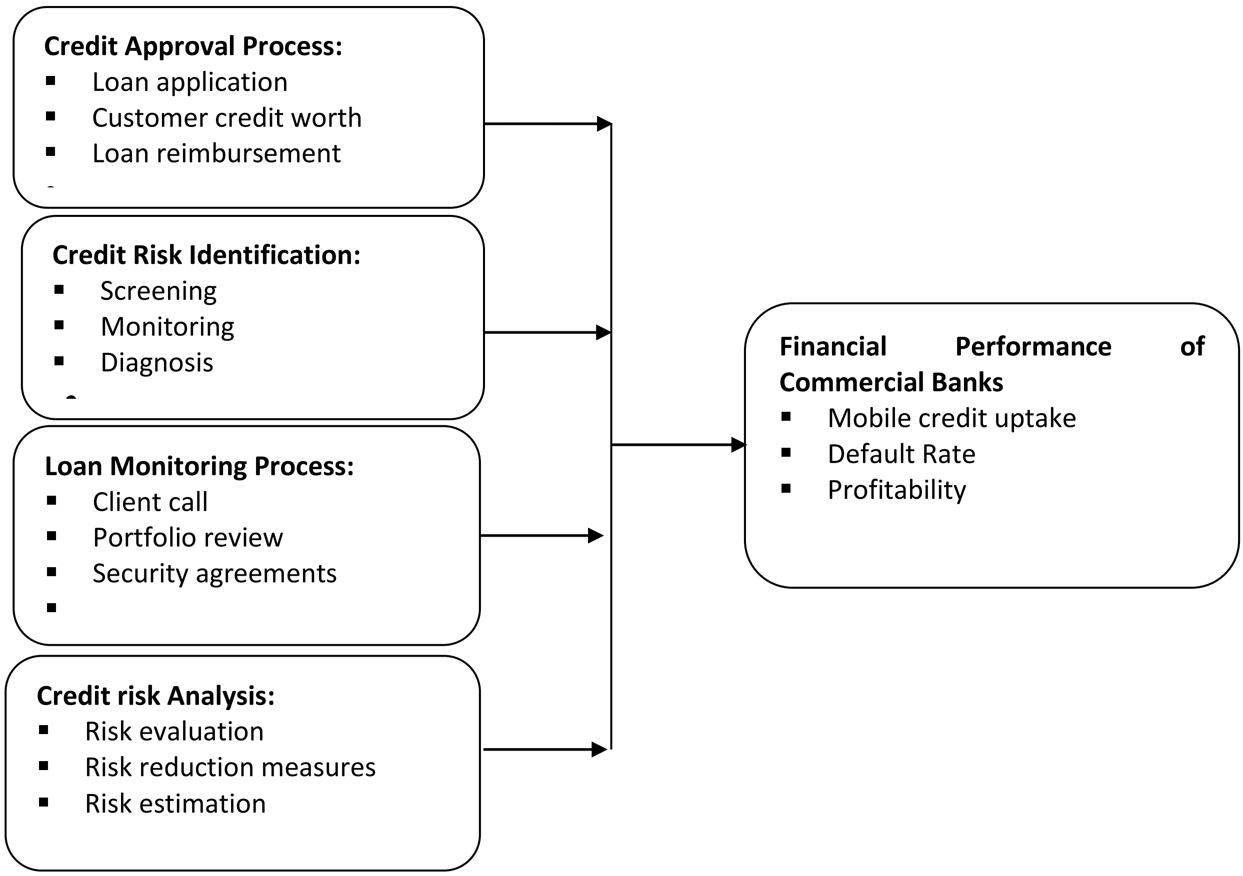
Juma, Odunga, Atheru, and Nzai (2018) conducted a research on credit risks assessments and performance of commercial banks in Kenya, which was published in the Journal of Banking and Finance. According to the findings of the study, liquidity risk, interest rate risk, credit risk, and exchange risk all have a positive and statistically significant impact on the performance of commercial banks in Kenya. The findings and conclusion of the study advised that commercial banks implement a robust method for measuring, recognizing, controlling, and managing liquidity risk. It is also important for commercial banks to identify the risk appetite of their major stakeholders, such as their directors. The report also proposes that commercial banks look into ways to strengthen their own internal capacity for managing interest rate risks in order to better serve their customers. At the end of the research, it is recommended that forward exchange contracts be used. Forward exchange contracts protect firms against the negative effects of fluctuating currency rates by locking in a rate for a specified period of time in the future.

A study conducted by Githinji (2018) looked at the relationship between credit risk analysis and the performance of commercial banks in Kenya. In the study's findings, it was discovered that all banks were working admirably. However, there were significant differences in their performance, with some achieving extremely high returns on investment (ROI) when compared to others. Additionally, the study discovered that, when it came to predictors of financial performance, the factors that had a substantial effect on each other were bank deposits and liquidity risk, bank deposits and capital management risk, and bank deposits and capital management risk. In this section, we discuss bank deposit and interest rate risks as well as liquidity risk and capital management risks. We also discuss Liquidity risk and bank size as well as capital management risk and interest rate risk in this section. It was found that neither credit risk nor foreign exchange risk had a statistically significant relationship with any of the variables studied ($P>0.05$), according to the findings of the study. Following the study's findings, it was determined that the bank deposit ($P=0.000$) and liquidity risk ($P=0.030$) were the predictor factors that had an impact on the banks' return on assets (ROA), while the other predictor variables had no significant impact, with all having a $P>0.05$. Credit risk, capital management risk, bank size, and foreign currency risk are all examples of such risks. The findings of the study revealed that as bank deposits grow, so does the performance of the bank; the relationship between the two is infinite; the greater the increase, the better the performance of the bank; however, banks have an optimal level of liquidity, and when the firm exceeds that level, the performance of the bank declines. The banks should take steps to ensure that liquidity is maintained at an appropriate level. It is recommended in the study that further research be carried out on the relationship between financial risk management and the financial performance of Micro Finance Institutions in Kenya, and that further research be carried out on the challenges that commercial banks in Kenya face in the management of financial risk management.

Credit Management

According to Myers and Brealey (2020), mobile credit management refers to the methods and procedures used by financial institutions to ensure that they maintain maximum mobile credit levels while also ensuring that their management of mobile credit is effective and efficient. It is the credit management approach that is employed that has an impact on the process of detecting credit default, which is the root cause of high default rates.

A study by Mwangi (2019) revealed that financial institutions carry out mobile credit risk management as a method of administering mobile credit to borrowers while providing mobile credit. As a result, a well-developed mobile credit mechanism and process, which includes credit assessment, staff training, and the establishment of credit criteria and conditions, is in place to mitigate the risk of loss and enhance financial performance.



Independent variables **Dependent variable**

Figure 1: Conceptual Framework

METHODOLOGY

The descriptive survey research design was used in this investigation. The population was made up of six commercial banks in major branches of Tier 1 commercial banks in Mombasa CBD that provided mobile credit services to its customers (Kenya Commercial Bank, Absa Bank Kenya, Standard Chartered Bank of Kenya, Diamond Trust Bank, Co-operative Bank of Kenya and Equity bank). The census technique was used in this research, which is a systematic examination of every unit, everyone, or everything in a population. The data for the research was gathered via the use of questionnaires. Computation of multiple regression models was as follows;

$$Y = ß0 + ß_1X_1 + ß_2X_2 + ß_3X_3 + ß_4X_4 + \varepsilon$$

Where;

Y = Financial Performance (value of a dependent variable)

ß = Constant Variable

X1 = Credit Risk Approval Process

X2 = Mobile credit risks identification

X3 = Mobile loan monitoring process

X4 = Mobile credit risk analysis

E = An error term

β1...β4 = Corresponding coefficients for the respective independent variables.

FINDINGS

Mobile credit approval process

Table 1: Mobile credit approval process

Statements	Mean	Std Dev
For a customer to be given a loan the bank take time to ensure that all the customer information is correct.	4.06	0.95
The bank employs qualified staff to conduct customer appraisals.	3.85	0.79
To authorize a loan, the bank's management must certify all papers.	4.52	0.37
Lenders do mobile credit risk analysis by examining historical financial situations and loan collateral.	4.15	0.87
Credit approval software that is based on credit history and other relevant data aids in the evaluation of credit risk.	4.60	0.47
Mobile credit approval processes make use of information such as financial status, payment history, public filings, and industry comparative statistics to determine creditworthiness.	4.38	0.61
Credit approval can be used to price loans according to the degree of risk associated with them.	3.91	0.83
Average	**4.21**	**0.699**

As shown in Table 1 above, the researcher conducted an investigation on the relationship between mobile credit approval processes and the financial performance of commercial banks in Kenya. The following were the conclusions reached: In order for a client to be approved for a loan, the bank must spend time ensuring that all of the customer information is valid. This averaged 4.06 hours. The bank has qualified people for carrying out customer appraisals, according to a mean score of 3.85 out of 5. In order for a loan to be accepted, the bank's management must confirm that all documentation was in order. The mean score was 4.52. The lenders conduct a mobile credit risk analysis by looking at the borrower's historical financial conditions and loan collateral, which resulted in a mean of 4.15. The mobile credit approval process tool, which is based on credit history and other applicable data, aids in the evaluation of credit risk and has a mean score of 4.60, which is above average. This approach uses information such as financial situation, past payment history, public filings, and industry comparable data for credit evaluation, resulting in an average score of 4.38. The credit approval procedure, which may be used to price loans based on the degree of risk associated with that loan, has produced a mean of 3.91.

Mobile credit risks identification

Table 2: Mobile credit risks identification

Statements	Mean	Std Dev
The bank looks at the viability of the project and the amount of loan requested.	4.21	0.55
The banks looks at customer Mpesa statement to get amount of loan to be given.	4.01	0.67
The loan authorized should be sufficient to meet the client's stated purpose.	4.53	0.46
The period of the loan should be convenient for the client's business.	4.15	0.82
Credit policies in banking industry contribute to client defaults on loan repayment.	4.07	1.04
Environmental issues, such as the country’s economic crisis, are the primary reasons for consumers to fail on loan payments.	4.32	0.61
Only the most deserving and capable customers are granted loans in accordance with the bank's credit policy.	4.25	0.57
Average	**4.22**	**0.674**

In the preceding table, the researcher requested respondents' opinions on the impact of mobile credit risks identification on the financial performance of commercial banks in Mombasa, which were summarized in the following paragraph. The following were the conclusions reached: The bank considers the feasibility of the project as well as the amount of loan requested, resulting in an average of 4.21. The banks examine the Mpesa statement of the customer in order to determine the amount of loan to be granted. The average Mpesa statement indicated a mean of 4.01. The loan amount accepted should be sufficient for the intended purpose, according to the client's request, as shown by a mean of 4.53. The period of the loan repayment should be convenient for the client's business, according to a mean of 4.15 years. Clients failing on loan repayments are caused by credit practices in the banking industry, according to a mean of 4.07 defaults per 1,000 loans. Environmental issues, such as the country's economic crisis, are the most common reasons for consumers to fail on loan repayments, according to a mean of 4.32 percent of respondents. According to the banks credit criteria, only the most deserving and capable customers are granted loans, with a mean of 4.25 points.

Mobile loan monitoring process

Table 3 Mobile loan monitoring process

Statements	Mean	Std Dev
The bank call the customer to remind them about repayment of the loan.	4.34	0.70
The bank ensure that the security they request from the customer is higher than the amount of loan given.	4.42	0.95
Banks closely monitored all loans issued to consumers to guarantee appropriate and timely repayment.	3.75	1.17
Collateral, loan security, and guarantors are all measures for loan debt collection.	4.84	0.36
Banks give sufficient training to relationship officers and other bank personnel on how to improve loan payback.	4.67	0.61
Banks are requesting clients to visit their branches and persuade them to pay up or face being put on the CRB.	4.71	0.49
Average	**4.455**	**0.713**

As shown in the preceding table, the researcher's goal was to determine the impact of the loan monitoring procedure on the financial performance of commercial banks in Mombasa. Findings from the Research The following are some examples of the findings: The number of times the bank called the consumer to remind them about loan repayment developed a mean of 4.34. The bank ensures that the amount of security they need from the consumer is more than the amount of the loan issued, resulting in a mean of 4.42. A mean of 3.75 indicates that banks closely monitored all of the loans that were provided to consumers in an effort to guarantee correct and timely repayment of the loans. Collateral, securing loans, and guarantors are some of the debt recovery tactics that were evaluated, with a mean score of 4.84. The percentage of banks that give proper training to relationship officers and other bank personnel in order to improve loan payback had a mean of 4.67. Banks are advising clients to visit their branches and persuade them to pay up, or else they will be included in the CRB, to a mean of 4.71.

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Mobile credit risk analysis

Table 4: Mobile credit risk analysis

Statements	Mean	Std Dev
To determine the credit risk associated with a loan issued, the lending institution must examine the borrower's economic and legal circumstances.	4.03	0.15
Assessing the external environment (economic growth, political stability, and industry-specific variables) will assist in identifying credit risks.	3.48	1.27
Banks carefully examine credit risk and the likelihood that a borrower would default on their loan commitments on time.	4.20	0.74
To determine credit risk, lenders gather information about the borrower's financial status and collateral.	4.16	0.51
Banks must identify and quantify the risks associated with extending credit to clients, as well as their impact on profitability.	3.97	0.56
Credit committee participation in loan decision-making is critical for decreasing default/credit risk.	4.25	0.65
Average	**4.015**	**0.647**

As shown in the preceding table 4, the researcher was interested in the respondents' opinions on whether mobile credit risk analysis had an impact on the financial performance of commercial banks in Mombasa. The final result was as follows: For a lending institution to estimate the credit risk of a loan granted, it is necessary to examine the borrower's financial and legal condition. The average indicated a mean of 4.03. Evaluation of environmental conditions (economic development, political stability, and variables impacting the sector) showed a mean of 3.48, which helped detect credit risks. Banks carefully evaluate credit risk, and the likelihood that a borrower will fail to meet their loan commitments on time was proven by a mean of 4.20 percent. In order to assess credit risk, lenders gather information such as the borrower's financial status and collateral, as indicated by the mean of 4.16. Banks must identify and rate all of the risks that are associated with providing credit to consumers, and their impact on profitability was found to be on average 3.97 in the study. The presence of credit committees in loan decision-making is critical in minimizing default/credit risk. A mean of 4.25 was derived for credit committee participation in loan decision-making.

Financial Performance of Commercial Banks

Table 5: Financial Performance of Commercial Banks

Statements	Mean	Std Dev
Mobile credit uptake affect financial performance of bank.	4.13	0.94
Mobile loan default rate affect financial performance of the bank.	3.66	1.31
The level of probability affect bank financial performance.	4.37	0.54
Mobile credit affects the banks market share.	4.23	0.72
Mobile credit risk management affects financial performance of bank.	4.11	0.78
The credit policies and procedures affects the banks financial performance.	4.46	0.35
Average	**4.16**	**0.773**

Looking at the dependent variable (financial performance of commercial banks), the study indicated that mobile credit uptake affect financial performance of bank indicated a mean of 4.13. Mobile loan default rate affect financial performance of the bank showed a mean of 3.66. The level of probability affect bank financial performance came up with a mean of 4.37. Mobile credit affects the banks market share developed a mean of 4.23. Mobile credit risk management affects financial performance of bank illustrated a mean of 4.11. The credit policies and procedures affects the banks financial performance indicated a mean of 4.46.

Correlation Analysis

Pearson correlation was used to computing the correlation between the dependent variable (financial performance of commercial banks) and the independent variables (mobile credit approval process, mobile credit risks identification, mobile loan monitoring process, and mobile credit risk analysis), the bivariate correlation coefficient was employed. The correlation coefficient spans from -1.0 (perfect negative correlation) to +1.0 (perfect positive correlation), according to Sekaran (2008), and the connection is believed to be linear (perfect positive relationship). When determining the strength of the association between dependent and independent variables, a correlation coefficient was generated for each variable (Kothari, 2013).

Table 6: Pearson Correlation

	Variables	Financial performance	Mobile credit approval process	Mobile credit risks identification	Mobile loan monitoring process	Mobile credit risk analysis
Financial performance	Pearson Correlation	1				
	Sig.(2-tailed)					
	N	57				
Mobile credit approval process	Pearson Correlation	.635**	1			
	Sig.(2-tailed)	.000				
	N	57	57			
Mobile credit risks identification	Pearson Correlation	.729	.617	1		
	Sig.(2-tailed)	.015	.754			
	N	57	57	57		
Mobile loan monitoring process	Pearson Correlation	.524**	.621**	.591	1	
	Sig.(2-tailed)	.002	.696	563		
	N	57	57	57	57	
Mobile credit risk analysis	Pearson Correlation	.502	.437	.615	.683	1
	Sig.(2-tailed)	.001	.046	.500	.674	
	N	57	57	57	57	57

**Correlation is significant at the 0.01 level (2-tailed)

The findings showed that mobile credit approval process had a high correlation with financial performances of commercial banks (r = .635). That meant that a positive change in mobile credit approval process would lead to improvement in the financial performance of commercial banks. Also, commercial banks that focused on mobile credit risks identification improved financial performance of commercial banks as indicated by a significant correlation value (r = .729). The study findings also showed mobile loan monitoring process approach had a relatively significant relationship (r = .524). It showed that banks that improve their mobile loan monitoring process approach achieved improvement in the financial performance.

The findings showed that mobile credit risk analysis had a high correlation with financial performances of commercial banks (r = .502). That meant that a positive change in mobile credit risk analysis resulted in improvement in the financial performance of commercial banks.

Model Summary

Table 7: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.841[a]	.707	.461	.305

a. Predictors: (Constant), Mobile credit approval process, Mobile credit risks identification, Mobile loan monitoring process and Mobile credit risk analysis

b. Dependent Variable : Financial Performance of Commercial Banks

In statistics, the R-squared, also known as the coefficient of determination, is used to show how well independent factors (predictor variables) explain the variance of the dependent variable (predicted variables). R - square was 0.707 according to the data in the preceding table 7, which indicates that the independent variables (Mobile credit approval process, Mobile credit risks identification, Mobile loan monitoring process, and Mobile credit risk analysis) explain 70.7 percent of the variance in the dependent variable (Financial performance of commercial banks in Mombasa county).As a result, additional factors not included in this study contribute to the financial performance of commercial banks in Mombasa County to the tune of 29.3 percent of financial performance. Because of this, further studies should be carried out in order to determine the other elements that account for 29.3 percent of the financial performance of commercial banks in Mombasa County.

Analysis of Variance

Table 8: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.718	2	4.359	16.326	0.00[a]
	Results	14.391	54	0.267		
	Total	23.109	56			

a. Dependent Variable: Financial Performance of Commercial Banks

b. Predictors: (Constant), Mobile credit approval process, Mobile credit risks identification, Mobile loan monitoring process and Mobile credit risk analysis

Table 8 above showed the results of an analysis of variance (ANOVA), which shows that the calculated 16.326 statistically significant at a significance value of 0.00, which is less than 0.05 at the 5 percent level of significance, with a significance value of 0.00 being less than 0.05 at the 5% level of significance. This demonstrates that the whole model was statistically significant. Thus, the independent variables (Mobile credit approval process, Mobile credit risks identification, Mobile loan monitoring process, and Mobile credit risk analysis) were statistically significant in explaining the financial performance of commercial banks in Mombasa County.

Coefficient of Regression

Table 9: Coefficient of Regression

	Model	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1.309	0.383		1.064	.014
	Mobile credit approval process	0.562	0.178	.625	2.776	.006
	Mobile credit risks identification	0.461	0.144	432	2.831	.000
	Mobile loan monitoring process	0.674	0.167	.654	5.165	.021
	Mobile credit risk analysis	0.487	0.159	.467	3.547	.013

Coefficients

$Y = 1.309 + 0.562X_1 + 0.461X_2 + 0.674X_3 + 0.487X_4$

If the independent variables (Mobile credit approval process; Mobile credit risks identification; Mobile loan monitoring process; and Mobile credit risk analysis) are held constant, financial performance in commercial banks in Mombasa County would be 1.309, according to the results of the multiple regression equation shown above. A unit improvement in mobile credit risks identification will result in a 56.2% rise in the financial performance of commercial banks in Mombasa County, according to the World Bank. By increasing the number of units used to identify credit risk, the financial performance of commercial banks in Mombasa County will improve by 46.1%.

An increase of one unit in the loan monitoring procedure will result in a 67.4% rise in the financial performance of commercial banks in Mombasa County. By increasing one unit of mobile credit risk analysis, it is possible to boost commercial banks' financial performance by 48.7% percentage points within Mombasa County.

Discussion of Findings

According to the findings of the study, a p-value of 0.006 was found in the mobile credit approval process, which is below the significance level of 0.05, indicating that there is a significant positive relationship between the mobile credit approval process and the financial performance of commercial banks in Mombasa. The findings shown above are consistent with those of a research conducted by Maina (2016) on the influence of loan approval procedures on the financial performance of commercial banks in Kenya: a survey of selected banks in Nairobi, which was published in 2016. After conducting an investigation, it was discovered that loan approval processes were exceptionally effective in protecting commercial banks from exposures to negative credit transactions with ineligible customers. Several factors, including credit standards regulations and interest rates, were shown to have a substantial impact on the rate and volume of borrowing in commercial banks, according to this study. It should be noted that the findings are in line with a study by Hotz, Kelly, Srinivasan, and Jindia (2011) on credit risk predictions using artificial neutral network algorithm, which stated that all banks and other credit institutions are guided by their own credit policies, which are used in the evaluation process of all applicants, whether they are individuals or businesses.

A p-value of 0.000 was found in the study, which is lower than the significance level of 0.05, indicating that there is a significant positive link between mobile credit risks identification and the financial performance of commercial banks in Mombasa, according to the findings of the study. As previously stated by Ang and Longstaff (2013), in order to assess the credit risk associated with a loan advanced to a borrower, it is necessary for the lending institution to conduct an in-depth investigation into the borrower's economic and legal situation as well as any relevant environmental factors. A research conducted by Remy and Njeru (2020) on the influence of credit risk identification and quantification on the financial performance of commercial banks in Burundi has also been linked to the findings. According to the findings of the study, good risk identification contributes significantly to the achievement of bank objectives, and the presence of an effective risk monitoring system of risk assessment contributes to the achievement of bank objectives.

A p-value of 0.021 was found in the mobile loan monitoring process, which is below the significance level of 0.05, indicating that there is a significant positive link between mobile loan monitoring process and financial performance of commercial banks in Mombasa, according to the findings of the study. A research conducted by Kithinji's (2019) on the influence of credit monitoring on the profitability of Kenyan commercial enterprises has found that the findings are connected to the conclusion of the study. According to the findings, data on the amount of credit granted, the proportion of non-performing loans, and earnings were gathered and analyzed for the years 2014 to 2018. The data revealed that the amount of credit given by commercial banks or the number of non-performing loans issued by them had minimal impact on the majority of their profits, showing that other factors besides credit and non-performing loans had an impact on profits.

According to the findings of the study, mobile credit risk analysis revealed a p-value of 0.013, which is less than the significance value of 0.05, indicating that there is a positive significant relationship between mobile credit risk analysis and the financial performance of commercial banks in Mombasa, which is supported by the literature. The findings are consistent with the conclusions of a research conducted by Juma, Odunga, Atheru, and Nzai (2018) on the credit risks analysis and performance of commercial banks in Kenya (Credit Risks Analysis and Performance of Commercial Banks in Kenya). According to the findings of the study, liquidity risk, interest rate risk, credit risk, and exchange risk all have a positive and statistically significant impact on the performance of commercial banks in Mombasa.

A robust method for assessing, recognizing, managing, and mitigating liquidity risk was suggested by the research for commercial banks. Having a robust risk management process in place, and having that process subject to proper board and Senior Management monitoring, is critical for banking businesses. It is also important for commercial banks to identify the risk appetite of their major stakeholders, such as their directors. In conclusion, the research revealed that all of the independent variables had a p-value that was less than 0.05, which indicates that there is a statistically significant relationship between mobile credit management and the financial performance of commercial banks in Mombasa, according to the findings of the study. A study conducted by Mwangi (2019) on the relationship between credit risk management practices and financial performance of microfinance institutions in Kenya revealed that financial institutions use mobile credit risk management to administer mobile credit to borrowers at the same time that they provide mobile credit. This has resulted in the construction of a well-developed mobile credit mechanism and process that incorporates credit assessment as well as staff training as well as the formulation of credit criteria and conditions in order to reduce the risk of loss and improve financial performance.

CONCLUSIONS AND RECOMMENDATIONS

The study confirmed that credit approval is a critical process that must be completed each time a member requests a loan in order to avoid extending credit facilities to clients who were financially unable to repay the credit borrowed in accordance with the terms and conditions stipulated, taking into account key credit appraisal characteristics such as the member's credit history, the client's disposable income, collateral substitutes, and other loan delinquencies. If the credit approval procedure is conducted effectively, the default rate is low, resulting in lower provision for bad debts and improved performance.

Mobile credit risks identification is critical for commercial banks since it serves as a work plan for benchmarking acceptable risk areas by establishing, investigating, deciding, and describing the desired risk level that can be readily handled and transmitted.

The study also concludes, as a way of conducting loan monitoring on mobile credit offered, the banks often contact with customers to remind them about loan repayment by phoning them or sending them text messages to their mobile phones. The bank makes certain that the amount of security they want from the consumer is more than the value of the loan. To guarantee that all loans provided to consumers were properly and punctually repaid, banks closely monitored all of the loans advanced to customers by calling the customer to remind them about repayment of their loans.

The study found that commercial banks in Mombasa employ considerable mobile credit risks identification procedures for risk management, which has had a significant impact on the financial performance of commercial banks. Additionally, commercial banks in Mombasa need to assure the security of consumer loans, hence reducing mobile credit loss. The study discovers a strong correlation between the use of credit risk monitoring tools and the financial performance of commercial banks.

According to research findings and conclusions, this study recommends that banks should monitor and carry out thorough analyses of all applications for mobile credit and advances, including credit history, before applicants receive credit approvals to reduce their non-performing credit to a minimum by increasing the focus on the ability to repay borrowers. It is essential for banks to make this practice a culture to generate greater profitability and improve their performance in risk management.

Banks need to examine levels of their capital adequacy, liquidity and deposit utilization for lending operations in order to determine the levels in which these elements might be a beneficial factor for banks' financial performance. Banks must continually assess and manage their use of resources effectively and efficiently in order to decrease operational expenses. Commercial banks in Mombasa need to strengthen their collection strategy by adjusting a more rigorous policy to an efficient mobile debt recovery policy.

The report also suggests that credit information be shared between financial institutions via credit reference bureaus (CRBs) to minimize the likelihood of fraudulent borrowers. As a result, banks need to invest in ICT in order to reduce fraudulent transactions and counterfeits in the market and build a stable financial environment.

The report also suggests that commercial banks in Mombasa need to strengthen their mobile credit customer assessment procedures in order to improve their financial performance. Through customer assessment approaches, Kenyan commercial banks would be able to identify loan worth customers and therefore reduce default levels and their un-performing loans thus enhance their financial performance.

Recommendations for Further Studies

In light of the fact that this study was limited to one location (Mombasa County) and among major branches of Tier 1 commercial banks, a similar study might be undertaken in other counties and across all levels of commercial banks to see whether a similar conclusion would be reached.

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