# EFFECT OF FINANCIAL LITERACY OF CUSTOMERS ON LOAN PERFOMANCE OF COMMERCIAL BANKS IN KENYA

**BY**

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## DECLARATION

This research project is my original work and has not been presented for a degree in any other university or for any other award.

Signature ………………………………… Date…………………………………

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**D61/82335/2015**

This research project has been submitted with my approval as the university supervisor.

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# DEDICATION

I dedicate this research to my dear wife and friend Catherine, our two daughters Jennifer and Gathoni.

# ACKNOWLEDGEMENT

I first thank God for graciously seeing me through this research work and secondly my very able supervisor Dr Zipporah Onsomu for her positive criticism that made me a better researcher.

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| | | |
|---|---|---|
| CBK | - | Commercial Bank of Kenya |
| CBO | - | Community Based Organizations |
| CMA | - | Capital Markets Authority |
| KBA | - | Kenya Bankers Association |
| KPA | - | Kenya Ports Authority |
| KWFT | - | Kenya Women Finance Trust |
| MFI | - | Micro Finance Institution |
| NGO | - | Non- governmental organizations |
| NPL | - | Non Performing Loans |
| OCU | - | Opportunity Credit Union |
| SME | - | Small and Medium Enterprises |
| USAID | - | United Sates International Aid |

## ABSTRACT

In recent years financial literacy study has been used to gauge the state of competency of individuals' understanding of financial knowledge and prudent use of acquired money. Researchers supporting financial literacy see it as a basic necessity for individuals transacting with financial institutions. On the contrary, other scholars perceive excessive knowledge in finance leads to overconfidence resulting to costly mistakes in financial decisions. There are forty two commercial banks in Kenya offering financial services, one of the requirement by the central bank of Kenya is to submit audited annual reports which covers credit status, liquidity risk and loan performance. The banking sector as at December 2017 reported seven percent non-performing loans in there reports. Therefore this study was meant to find out effect of financial literacy of bank customers on the performance of loans among commercial banks operating in Kenya. Participants in this study were the customers from the 42 commercial banks in Kenya. Descriptive research design was used in describing the characteristics of the population under study in order to find the relationship. Method used to identify the sample size was simple random sampling design. Primary and secondary data collection was used in this study. Primary data was collected using administered questionnaires to respondents and secondary data was collected from the published audited reports from the banks for the year 2017 since this was a cross sectional study. The response rate of the tools administered was 73% and the test of reliability had a coefficient of 0.837 which is above the minimum acceptable level of 0.6. Descriptive results showed the highest number of customers were of the age between 26-35 years, there are more male customers (66%) than female customers (34%), the highest financial literacy activity by respondents was the critical analysis of price of goods before purchasing at a mean of 4.25 and the lowest activity was savings at 2.26.The regression model results indicates that variables under study had significant relationship, financial literacy ($\beta = 0.028$ $P<0.05$), age of customers ($\beta = 0.054$ $p<0.05$) and loan repayment period ($\beta = -0.036$ $P< 0.05$). The adjusted $R^2$ was found to be 0.521 depicting independent variability of 52.1% of the dependent variable loan performance. The results indicate a significant relationship between the independent variable financial literacy and dependent variable loan performance. The findings conclude that the level of financial literacy of customers would affect the loan performance of commercial banks in Kenya, there is a strong positive correlation. Recommendations from this study is that banks need to invest in financial literacy training amongst the customers before advancing loan in order to improve on loan performance. The government also needs to put measures that will encourage the citizenry on financial literacy awareness through policies and formal curriculum development.

# CHAPTER 1: INTRODUCTION

## 1.1 Background of the Study

Garman and Gappinger (2008) defined financial literacy as ones extensive knowledge of concepts, principals and facts that are crucial in understanding money. According to Huston, (2010) financial literacy is the application knowledge gathered on money matters and applying the knowledge in making informed judgment to achieve financial goals. Financial literacy has a major effect on financial decisions since most of the components affecting performance of a business or ability to pay a loan are compounded around financial decisions. Knowledge in areas such as budgeting, financial management, and ability to draft income and expenditure schedule improves on one's ability to understand more into their business performance (Mwangi, 2013). There is a keen interest in ensuring there is financial prudence this in turn improves on how one makes financial decisions as a result reducing cases of non-loan performance.

This study is anchored in the theories of goal setting, social learning theory and psychological and sociological. Goal setting theory states that in order to be more effective an individual or group of people need to be more effective in goal setting. Individuals need to set goal, analyze information received from it and how to do the said task. On the other hand, Social learning theory expounds on how factors that are largely social affect information that is financial and extensive advice largely shapes individuals behavior on financial performance. This relationship has a direct impact on the progress that can be made by individuals towards saving. Psychologist Allport (1985) defines social psychology as an area of study that elaborates on the thoughts, behavior and feelings of individuals using scientific methods and how they are affected by what one imagines or implied presence of other human beings. These theories are key in understanding financial literacy perspectives since they both deal with components that interrelate in ensuring sound judgment and motives by individuals in financial matters.

There are three Acts that govern banking sector in Kenya, these are the acts governing the companies, Central bank and Banking sector. These banks operate under the Central bank of Kenya (CBK). According to CBK (2015), there are 45 institutions in the banking sector, 42 of them entails banks that are commercial, financial companies, at least among them 2 mortgage finance entities, lastly one organization not operating as a bank fully. Commercial banks in Kenya have gone through major changed since market liberalization in the 1990's. The banks have had profit efficiency ranging averagely 65.6% over the period between in 2015 and 2017. Recent studies have indicated that banks have suffered a decline in profits due to the increased changes in economic dynamics that result to customers being unable to pay for the loan facilities they have undertaken. According to (Meso & Kaino, 2013) banking sector competition has been vigorous strategies put in place such as adoption of new technology and diversifications of products have brought new light in operations. Stringent rules in loan disbursement are also part of the strategies put in place. In recent years, loan performance has been widely discussed in the banking industry. Commercial banks have such a vast customer base, there is a keen interest in analyzing their loan performance. According Cytonns, (2015) study, there is a steady increase in non-performing loans among commercial banks that pose a great risk to the banking industry and its projected growth. This motivates this study that intends to find the effect of financial literacy of customers on loan performance of commercial banks in Kenya.

### 1.1.1 Financial Literacy

Financial literacy is the capacity of an individual to be able to use the knowledge and skills they have received over period of time in managing resources that are financial effectively and efficiently for lifetime financial security. Danes & Hira (2007) refers to financial literacy as an evolving state of competency that ensures individuals respond effectively to the increasingly changing personal and economic circumstances. This has made financial literacy to become a center of study in most developing and developed economies, and this has also brought about much elicited interest in the recent past with a lot of changes in the financial landscape.

Financial literacy helps in empowering and informing investors in order to gain more knowledge and skills regarding finance. This is very important to businesses since it enables them to put this knowledge into practice through product evaluation and decision making. It is widely expected that the more knowledge one has on financial matters helps them overcome difficulties in advanced credit market (Fessler et al 2007). Financial literacy prepares investors for challenging financial times. This is achieved though coming up with strategies that control risk such as aggressive savings by individuals, assets diversification and purchasing of crucial insurance components. Lusardi and Mitchell (2007) questions used scores in measuring financial literacy.

### 1.1.2 Loan Performance

Greenidge and Grosvenor (2010) defined non-performing loan (NPL) as a loan that has been unpaid for ninety days or more. If a loan is unpaid for such a period of time it affects the loan performance of commercial banks thus forcing these organizations to always pay attention to several factors when providing loans in order to avoid loan defaults. Some of these factors are economic performance and state of liquidity of assets provided as security. In many commercial banks, loans are considered as major assets of the banks. Loan value is greatly dependent on the interest that the facility will earn and the quality and likelihood that the principal will be paid. Loans are predominantly the source of revenue for most commercial banks. According to Comptrollers(1998) the level of risk that is mostly attributed to lending amongst the commercial banks largely depends on the loan composition and the degree to which loan terms exposes the commercial bank to revenue stream changes in rates.

Loan performance is depicted by analyzing non-performing loans ratio to total loans advanced within a period of time. Some studies measured loan performance on small and medium borrowers from MFI in India using the repayment performance level of individuals who took loans. According to Olebedo and Olebedo (2008) their study measured loan performance by obtaining amount loaned by farmers and the years of experience in examining the loan repayment among the small farmers in Nigeria. His results from multiple regression analysis showed that there was a keen relation amongst the two key components of research.

### 1.1.3 Financial Literacy and Loan Performance

With increased financial knowledge educators believe that it leads to improved financial literacy and securities to most households (Garman, 1999). There has been an inclined perception on matters relating to financial literacy, this over time has been related to more informed decisions by small business owners who in turn have recorded a promising loan performance index. The more one understands the dynamics of fiancé and its intricacies it becomes easier to redistribute their strategies on matters related to debt management and financial solutions which is key in controlling loan applications and repayments.

Limited financial literacy skills lead to lower household savings and increase in debts in the household. Individuals who have lower skills on debt management tend to acquire debts that are of higher cost and interest rates leading to loan default. In addition to being easily deceived they are prone to fraud and abuse. An inadequate skill in financial literacy leads to borrower fragility which in turn leads to loan losses and poor loan performance (Mitchell, 2005).The more informed the consumers are the less prone they are to loan default. This is because with more information on financial literacy, they exercise innovation and monitor the trends of the market which improves on performance of the loan and business growth as stated by (Kim & Gramman, 2006). According to (Hilgert et al, 2003) study suggests  that financial literacy skill increases the members' assets, increases loan performance of micro-lending organizations, customers and reduces liabilities among members. Similarly lack of the same skills affects the entire operations of the business and groups in turn affecting the small businesses.

### 1.1.4 Commercial Banks in Kenya

There are forty-two commercial banks in the country some of which are internationally based (CBK, 2017). The headquarters of these banks are in Nairobi and they serve both retail and corporate customers. The banks in the country perform the following function: creation of money, community savings, ensure smooth support of payment mechanisms, ensure smooth flow of international transactions, storage of valuable goods and provision of credit services. The Central Banks of Kenya falls under Treasury docket, is accountable for the formulation and execution of monetary policy and foster of liquidity and proper operations of Kenyan commercial banks. This policy formulation and implementation also include commercial banks financial risk management and financial performance (Central bank of Kenya, 2015).

Commercial banks in Kenya are required by CBK to submit audited annual reports, which include their financial performance and in addition show to the public financial risks in the reports like the credit, liquidity risk and loan performance ratio, as well as management of credit risk. Effective management of credit risk practices involve reporting, reviewing to ensure credit risks well identified, assessed, controlled and informed responses are well in place by commercial banks. When the loan is issued after being approved by the bank's officials, the loan is usually monitored on a continuous basis so as to keep track on all the compliance issues/terms of credit by the borrower (CBK, 2015).

## 1.2 Research Problem

Financial literacy status of individuals who transact with banks on a daily basis plays a crucial role in commercial banks loan performance. This is because banks main activity is managing monetary flow through transactions and lending to its customers (Mwangi, 2013). If an individual is financially literate they tend to save more, make better decisions and pay loans promptly. Limited financial literacy skills lead to lower household savings and in turn increase in debt. Individuals who have lower skills on debt management tends to acquire debts that are of higher cost and interest rates leading to loan default or poor loan performance (Mitchell, 2015). Researchers supporting financial literacy see it as a basic necessity for an individual transacting or intending to transact with a bank. Contrary to that, other scholars have stated that the more financial knowledge one has easily makes them overconfident thus making simple but costing mistakes in their daily financial decisions.

At the end of December 2017, there were 42 commercial banks in Kenya. Two of the mentioned banks were no-operational since they are under receivership. The Kenyan banking sector non-performing loans constituted 7 % of the loans advanced as reported in the banks' balance sheets (CBK, 2017). Generally loan performance of commercial banks largely depends on ability of customers to repay their loans on time and banks strategy on credit management. According to Dickinson (2012) banks that experience struggling trend have achieved less success in managing their loan portfolio especially in the corporate sector, this largely affects the working capital and profitability negatively. Currently in Kenyan banking sector eight large banks have their loan performance index cut by 8.04 percent with 11 medium banks reported as struggling by the regulator (CBK, 2017). According to Cytton (2015) study on 10 commercial banks loan performance, the results of the study showed that only four banks had performed better while others had rating below five.

Lusardi et al (2010) studied financial knowledge capacity of youth in USA using a survey across different regions. In their study they found that the level of financial literacy within the age group of the youth was very low. Thereafter local studies have also focused on financial literacy. According to Doyo (2013), the study looked into members of the informal sector in Kenya level of financial literacy and pension preparedness, the study found out that there is a significant positive relationship between financial knowledge by members and level of preparedness on retirement. However, the study left out the formal sector assuming quite a number of those employed in this sector had financial knowledge.

According to Obago (2013) study on financial literacy among employees of commercial banks in Kenya, commercial banks' staff have very limited knowledge on financial matters. Whereas many other studies have been done on financial literacy and its effect on commercial banks, there are limited studies that have directly looked into the effect of financial literacy of customers on loan performance. This gap drives the intention of this study to seek an understanding on the effect financial literacy of customers can have on the performance of loans within commercial banks in Kenya. by answering the stated research question; is there an effect of financial literacy of customers on loan performance of commercial banks in Kenya?

## 1.3 Research Objective

To determine the effect of financial literacy of customers on loan performance of commercial banks in Kenya.

## 1.4 Value of the Study

The findings of this study will be crucial for commercial banks to make informed decisions on how to handle customers in regards to loan applications and approvals at the same time improving financial literacy amongst its customers by adopting whatever recommendations will suit them best. Banks are keen on loan performance since it affects profitability and bank image amongst the shareholders.

The customers will also use this study to gauge their level of financial knowledge whereby they can later use the information to advance their skills through trainings and seminars or improve on areas that they find crucial in helping them become better personal financial managers. Sharing of such findings might also help in reducing the loan defaults and harassment from individual bank customers' side.

The government may also use the research findings to come up with policies that are geared towards promoting finance literacy among the population which in turn might lead to financial wellness and improved investments both in public and private sector. This may be done by promoting saving, debt and credit management as well as financial security such as pension plans and retirement preparedness among citizens.

# CHAPTER 2: LITERATURE REVIEW

## 2.1 Introduction

This chapter contains the review of literature in the area of financial literacy and its effect on loan performance of commercial banks. It covers theoretical review, determinants of loan performance, Empirical review, literature review summary and and conceptual framework.

## 2.2 Theoretical Review

This study was anchored in three theories namely, Goal setting theory, Social Learning Theory, psychological and sociological theory.

### 2.2.1 Goal Setting Theory

According to Kirst Lewin (1960) early works on inspiration levels among individuals, goal theory was one of the aspects. His motivation theory stated that people are naturally motivated by setting up goals which makes their performance improve. Goal setting is related to a strong belief that when an individual or a group set goals consciously and have an intention of achieving them, this leads to positive results. Locke and Latham, (1990) concluded that individual goals in most cases have a determinant on how well they perform tasks allocated to them. Goals that are clearly defined and are at least challenging have the ability to yield higher performance than goals that are vague such as do your best goals.

This goal can be properly applied in loan performance by ensuring there is a clear goal by both the lenders and receivers on how they intend to furnish the loan and payment follow ups in order to reduce the rate of non-performing loans. This means that financial literacy programs should have more impact when motivated by a strong desire by individuals to maintain a good financial rating by lender through prompt loan repayments. It is considered that an individual who is deemed to be knowledgeable enough on financial skills should be more effective in loan repayment and administration. According to Mandell and Klei (2007) it is also possible that even taking a course in personal finance there could still be lack of motivation to learn and retain these skills for future or current use.

According to this theory, it has a practical implication in that, customers are likely to make financial decision based on personal goals that they have at personal level. Consumers who have gone through financial literacy training will have enough knowledge to either borrow responsibly or improve on their loan repayment schedule (Mande & Klei, 2007).The proponents of this theory believed that individual financial knowledge has a higher influence on the goals individual set. Observational learning demonstrates that indicators such as loan performance that depends on one ability and willingness to pay would largely depend in decision made to meet set goals. How much loan performed largely depends on the decision a customer makes to meet the loan repayment goal, this is closely alluding to observational learning.

### 2.2.2 Social Learning Theory

Bandura, et al, (1961) argues that social learning theory expounds how social factors such as sources of financial information and advice largely shape individuals behavior. Financial values and way of thinking is largely developed by the immediate environment. According to Bandara, (1977) the effects of social interactions on individual behavior have been applied and tested in different situations.

Greenspan, (2002) supported this theory in his findings that peer effects had a great influence on retirement savings decisions because people tend to think deeply on particular planned advantages and disadvantages before engaging in them. However (Glaesser & Scheinkman, 2013) states that learning financial matters necessarily doesn't guarantee behavior that demonstrate good financial decisions, other factors may be used to measure such factors other than social learning theories.

Practicality of this theory depicts investors as likely to make decisions based on social factors. This implies that financial knowledge might have attachment to the loan performance if the consumer portfolio largely collects information from its immediate environment (Bandura, et al 1977).These might result to higher rates of loan repayment amongst the customers in instances where the beneficiaries are well informed on financial knowledge. For instances where it is low then there is probability of reversed gains. This is clearly illustrated by (Artkins & Messy, 2005) stocks ownership trend study that cites individuals' ability to participate in company they feel ownership on compared to those buying for the sake of investment.

### 2.2.3 Psychological and sociological theory

Social Psychology is an area of study that extracts an understanding of how people think, feel and behave around certain circumstances, imaginations and other human beings (Allport, 1985). Some commercial banks and financial institutions are keen on lending to community social groups rather than individuals from such settings. This is a good example that group lending is perceived to be less risky due to the collective responsibility and sociological factor. Their propositions on how these components mentioned are shaped by sociology and psychology. In this regard, Chitedi and Stattered (1999) suggest that friends and immediate social accomplices can greatly affect individual patterns of consumption, saving culture and expectations of saving. In cases where individuals lose their jobs, business environment changes or income flow stops, they tend to maintain past consumption pattern therefore past experiences whether good or bad always affects individuals perception about saving. Psychological propositions also consider personality characteristics to a cause to blame in individuals consumption pattern. Some of the psychologists and socialist propositions are largely implying that individuals are solely responsible for asset accumulation experiences.

Whereas scholars have supported the psychological and sociological theory, Freud (1975) ideas are clear and key on literacy criticism of the theory. As in “psychoanalytic criticism” Freud says that there are some secret desires and motives that cannot be clearly underpinned in the analysis of the theory. In this regard Rogers (1951) is imposing a lot of creativity in understanding full functioning person. His criticism is in the line with a wider view of assumption which would affect key aspects of savings, expenditure and debt management that are not deeply analyzed. This theory is applicable in financial literacy through the understanding that most defaulted loans are as a result of poor understanding of past experience of individuals.

The practicality aspect of this study is that it was anchored on psychological and sociological theory since the respondents targeted in this study exhibited some aspects of financial literacy and autonomy to impact on financial decisions such as savings, loan acquisitions or investment decisions. This was clearly demonstrated by studying how much ones feelings about loans can influence or being influenced by immediate environment or human interactions. A clear check on the background of individuals gave very crucial pattern of past experience which in turn advised on the possibility of such individuals defaulting on loan payment.

## 2.3 Determinants of Loan Performance

The independent variables under discussion in this are Age of Customer, interest rate levels and financial knowledge.

### 2.3.1 Age of Customer

The age of customers in most micro-lending institutions determines the loan repayment status. Clients who range between 18 and 25 years old have a bit of difficulties in loan repayment compared to the old who are more responsible and keen on ensuring loans are repaid. This rate of default amongst the young borrowers is related to lack of experience in running businesses. The young borrowers are also perceived to be reluctant in committing to repay their loans with the mind that they can still access micro credit facilities from other micro finance institutions who widely venture on the young borrowers because of age.

According to (Roslan & Mohd, 2009) there is more certainty in old borrower's not experiencing difficulty in repayment since they have stable income and large experience in financial management. Some customers who are of advanced age have problems with paying loans due to in accessibility of liquid cash and stringent financial conditions put up by lending institutions (Mwangi, 2012).Whereas many banks lend according to the financial status of individual, in some cases the lender fails to capture the actual age of the borrower in terms of how far they are to retirement. This result into default in an event the loan repayment spills over to post retirement period.

### 2.3.2 Financial Knowledge

Personal financial management has been perceived as a sensitive matter to discuss even with an increasing debate of rise of personal debt (Bennett, 2006). Many prominent and non -prominent people are decaled bankrupt due to the recently changed bankruptcy laws. According to White (2005), in June 2016 the developing nations registered a negative 1.5% personal savings rate. Whereas the Act of 2005 that control bankruptcy prevention and consumer interest protection declare that consumers must have enough financial literacy skills before being declared bankrupt, this will largely help in financial management skills. Lauren (2011) sees commercial banks focusing on savings and lending to small scale business owners as important and necessary tool to have financial inclusion. The study states that financial inclusion is key in ensuring there is financial literacy and freedom.

The study looked at baseline data that was collected as part of impact assessment across three African countries implementing micro-lending program through member voluntary lending and saving associations. Its findings showed that with financial knowledge loan repayment is greatly improved amongst target customers. Aspects such as budgeting, saving and debt management largely feature among the important components in the records. However it's very difficult ensure that customers adhere keenly to best practices in implementing these concepts, most customers don't monitor movement of cash until a crisis comes up. According to White, (2005) this is why it's important to understand concepts of financial literacy in handling cash on a daily basis.

## 2.4 Empirical Review

Jeanne (2006) conducted study on improving financial literacy amongst credit organizations in the developed countries. The paper was presented in a conference hosted by the G8 presidency cooperation in Russia focusing on economic cooperation and urban infrastructural development. The study employed random sampling to collect data form 50 opportunity credit union (O.C.U) members out of 300 memberships through questionnaire and interviews. The findings provide some valuable insights into the possible links that lies between financial education, community development outcomes, savings and Loans, financial education and financial services.

Lauren (2011) looked into micro lending institutions focusing on savings and lending to small scale business owners as important and necessary tools to have financial inclusion. The study states that financial inclusion is key in ensuring there is financial literacy and freedom. The study looked at baseline data that was collected as part of impact assessment across three African countries implementing micro-lending program through member voluntary lending and saving associations. The study concluded that there was a clear relation between financial knowledge and performance of this institution.

At the local level, Nyamute and Maina (2011) examined areas of financial practices that promote savings practices, expenditure practices, cash management and investment. This study showed a significant difference between practices of fiancé of those with knowledge against those without financial knowledge as key respondents. Its findings concluded that financial literacy affects positively financial management practices of individuals.

Achola (2012) studied impact of capacity building on sustainable micro lenders in Suba district. The methodology used was qualitative and quantitative descriptive survey design, with sample populations of 26 groups out of a total population of 133 groups. The research findings were that the micro lending groups in Suba district were very organized. The extent of selection, planning and management as a component of capacity building brought about the aspect of stability and growth that was positive. The study also examined the quality of trainer of trainers impacted on sustainability of micro lending organizations and 69% indicated they understood the modules they were trained on. However, selection, planning and management should in their structured way consider different other economic activities like there are others who do agricultural business so they should be trained considering that in the modules.

Hussein et al, (2012) conducted a study on credit organizations in Iran that resolve their activities on transactions and savings. Data was collected using questionnaires, surveys and observations design analysis of the data inclined towards simple linear regression. The findings established that forms of contract, loan size distances and borrowers peculiarities were important determinant of costs of transactions but not financial literacy or measure of loan performances.

Lawina, (2013) studied on financial literacy and financial management of the youth enterprise in Kenya. Her focus was mainly factors leading to poor performance and non-repayment of loans. The study used the descriptive survey and random sampling of three individuals from every group in a population of 108. The findings came out that the government has been providing access to finance the youth through youth enterprise development found but there is limited knowledge on financial literacy among the youth in question hence calling for more intensive program on financial literacy for the youth in order to get maximum benefits. There are other factors affecting these groups other extent of study. There is need to have more studies which when harmonized can give reliable solutions on development of these youth in enterprise.

Cherugong, (2015) conducted a research paper to determine the small and medium enterprises performance and how financial literacy affects them within Trans Nzoia County, the researcher used a cross-sectional study design. The population of study was categorized under 4 major markets comprising of a high concentration of all types of SME's and data was collected using simple questionnaires. The findings of this study were that there is a strong positive effect of financial literacy on performance of SME's.

It indicated that SME's that are more successful are run by entrepreneurs who are financially literate. The study identified on gap that there should be more study on financial literacy focusing on artisans who are drop-outs and entrepreneurs from informal sector in both rural and urban centers.

Obure, (2017) studies the effect of financial literacy on personal investment decisions among bankers in Kenya. The study used descriptive research method with bankers in Kenya being the target population. Data was collected through modified questionnaires that looked into different demographic factors. The study had respondents portray a conclusion that there is no significant effect of financial literacy on investment decisions made by bankers in Kenya, it also portrayed that most bankers are women. The results were contrary to initial notion that expected an obvious conclusion that bankers had enough access to financial literacy information and would not have challenges investing.

## 2.5 Summary of Literature Review

Empirical studies have been conducted on the influence of financial literacy training on the loan performance of micro lenders projects. Different results have emerged from the studies. Some studies agreed to the conclusion that there was a relationship among variables while others fell short of establishing the said relationship among them. Huseini et al (2012) study on credit organization that was arrived at to analyze relationship failed to expound on any clear relationship. However, Lauren (2011) found micro lending an important component in financial inclusion. The study found a clear positive relationship between key variables that affirmed the relationship between financial literacy and its effect on loan performance. Some local studies such as Margaret (2013) on financial literacy and loan management of the youth enterprise had findings that the government has provided enough funding to finance youth activities. However, Obure (2017) concluded in his study that there is no significant effect of financial literacy on investment decisions made by bankers in Kenya.

The literature reviewed above shows that there is an existence of clear gaps with respect to financial literacy studies on loan performance in Kenyan context. This is evident by extensive review of literature on other aspects of banking sector and performance in Kenyan banks. These studies are such as emerging markets dynamics in USA and Europe. The literature reviewed also shows there are no enough studies done on financial literacy with divergent results that can be used in the academia scope. This provides a significant area of study which will be crucial in coming up with comparison papers to study effect of financial literacy on loan performance in commercial banks operations. The finding of this existing literature is what this research addressed bridging the gap that research was addressed by determining the effect of financial literacy of customers on loan performance of commercial banks in Kenya.

## 2.6 Conceptual Framework

The conceptual framework in Figure 2.6.1 shows the key relationship of the variables that informed this study. It illustrates the independent variables, the dependent variables and the moderating variables. Under the independent and dependent variables, key indicators that were measured are indicated. The arrows depict the presumed relationship between the variables financial literacy and loan performance, independent and dependent respectively and the control variables such as age of the customer, level of interest rates and loan repayment period.

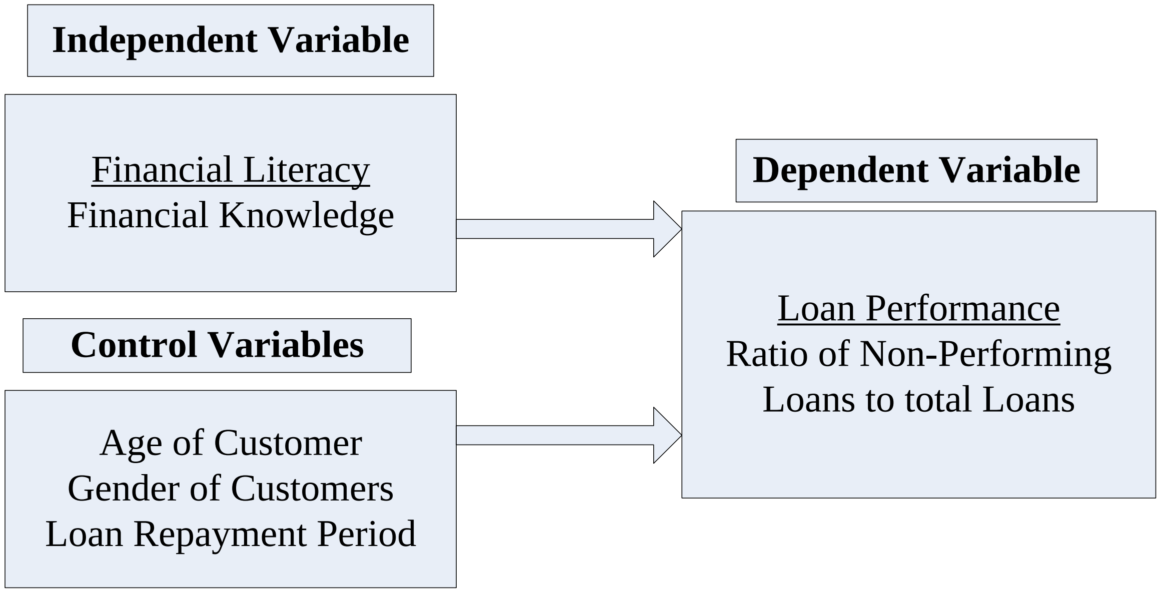


***Figure 2.6.1 Conceptual Framework***

# CHAPTER 3: RESEARCH METHODOLOGY

## 3.1 Introduction

This chapter covers the approach that was used by the researcher in collection of data from the field of study and analyzed. It has the following areas: research design, target population, sampling size and design, data collection, regression diagnostics, data analysis and test of significance.

## 3.2 Research Design

The study used descriptive research design. It was the most suitable since it described the characteristics of a specific population under study. The design in this study sought to find the causal relationships between variables as per this study it is financial literacy of customers and loan performance of commercial banks.

## 3.3 Population

The total number of Customers as at 31st December 2017 was 32,450,200 in Kenya CBK, (2017). They represent the generalized characteristics of the 43 commercial banks in Kenya.

## 3.4 Sampling Size and Design

This study adopted simple random sampling. In selection of the research design the researcher assumed the population was highly homogeneous. The standard error and covariance used was 0.3 and 0.30 respectively. These components of study were selected to see that there is low variability and minimized error.

Therefore, using Kombo and Tromp, (2009)

$$n = \frac{NC^2}{C^2 + (N-1)e^2}$$

N - Population Size

e - Standard Error

n - Sample Size

c - Covariance

The study assumed a 0.95 level of confidence level. Significance level was 0.003 and variability of 0.03, the significance level was 3% giving the e value to be 0.03.

Sample size was given by:

$$n = \frac{32{,}450{,}200\ (0.3)^2}{(0.3)^2 + (32{,}450{,}200-1)0.03^2}$$

$$n = 100$$

### 3.5 Data Collection

Primary and secondary data was used in this study. Primary data was collected through administration of questionnaires to the respondents representing the 43 commercial banks, 2 customers were randomly selected from each of the 45 commercial banks in Kenya in order to have an equal representation. Interviews were also used in this study on face to face in order to help with the respondents who were not comfortable answering the questionnaire alone. The instruments used were reliable. The questionnaire was examined, discussed and reviewed by the supervisor and the researcher who studied the relevance of the content of the instrument in relating it to the statement of the problem and research questions to determine its validity and reliability. The data from the secondary source was in form of audited financial statement and reports of the bank for the year 2017, the loan performance measure was done through getting the ratio of non-performing loan to total loans which was analyzed through cross sectional study of the 43 commercial banks in Kenya for the year 2017.

### 3.6 Reliability and Validity Tests

Reliability test measures the degree that the instruments bring out consistent results after several trials (Crocker & Algne, 1986). This test was carried out in this study to analyze consistency of the outlined questions through critically studying the replicability. Cronbachs Alpha was used to test questionnaires reliability.

Whereas, Validity is the test used to analyze accuracy of the inferences (Manaf, 2012).The questionnaires were tested on validity and the tools developed were used to come up with modifications to address study objectives.

### 3.7 Regression diagnostics Tests

The study used tests of normality for the regression model by determining the skewness tests. Homoscedasticity was carried out to measure the extent of equal variances between the values for dependent and independent variables. Multicollinearity of the study variables was used to test tolerance levels.

### 3.8 Data Analysis

Questionnaires received from the respondents were checked for completeness with keen analysis. Coding and categorization was done and data entered into SPSS for windows version 20 for analysis. This study used descriptive and inferential tests in the analysis. Descriptive statistics such as frequency and mean were used to summarize the findings from the responses and they are referred as the best for analysis. Inferential statistics was used to infer population characteristics from the sample and pearsons correlation coefficient was used to gauge the extent of the relationship between the variables.

### 3.8.1 Analytical Model

The study used Multiple Linear regression model. The variables that were used to determine the effect of loan performance were financial knowledge, Age, Level of Interest rates and Number of years of existence. The model is as follows

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_{4+} \varepsilon$$

Where;

Y – Loan performance

$\alpha$ – Constant

$\varepsilon$ - Error term

$X_1$ – Financial Knowledge

$X_2$ – Age of Customer

$X_3$ – Gender of Customers

$X_4$ – Loan Repayment Period

### 3.8.2 Operationalization of Study Variable

Independent and dependent variables operationalization is shown using the interval and ratio measurements in their respective questionnaires as shown in Table 3.8.1.

.

*Table 3.8.1 Operationalization of Study Variable*

| Category | Variable | Empirical Studies | Measurement | Questionnaire |
|---|---|---|---|---|
| Independent variable | Financial Literacy | Annamaria (2010)<br>World Bank(2012)<br>Mitchell (2011)<br>Binyanga (2013) | Interval | Q3 |
| Dependent Variable | Loan Performance | Greenidge & Grosvenor<br>Olebedo & Olebedo | Ratio | - |
| Control Variable | Demographic characteristics | Age | Ratio | Q1 |

**3.9 Test of significance**

In this study, F test was used to test the joint significance of all coefficients and T-Test for testing significance of individual coefficients. The Adjusted $R^2$ will be used to depict the significance level of variables.

# CHAPTER 4: DATA ANALYSIS, FINDINGS AND INTERPETATION OF FINDINGS

## 4.1 Introduction

This chapter analyzes data collected with an aim of presenting the findings collected. The analysis is divided into several sections: response rate, reliability and validity tests, diagnostics tests, descriptive tests, correlation analysis of variables, regression analysis and discussion of findings.

## 4.2 Response Rate

In the targeted 100 respondents, 11 questionnaires were not filled properly thus discarded and 16 were not returned. The total number of respondents analyzed was 73. This gives a 73% return rate which is above the accepted threshold in studies.

***Table 4.2.1 Response Rate***

| **Instrument** | **Frequency** | **Percent** | **Cumulative Percent** |
|---|---|---|---|
| Response Rate | 73 | 73 | 73 |
| Non- Response Rate | 27 | 27 | 27 |
| **Total** | **100** | **100** | **100** |

## 4.3 Reliability and Validity Tests

### 4.3.1 Test of Reliability

Reliability test was done on the key independent variables that were under financial literacy. As it is shown in Table 4.3.1, the Cronbach's Alpha values of this study shows it reliability coefficient variable is 0.837 which is above the minimum acceptable level 0.6 hence the reliability of the research tool is at a good level (Caslin, 2009).

***Table 4.3.1 Reliability Statistics***

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | Number of Items |
|---|---|---|
| **.837** | **.643** | **13** |

### 4.3.2 Test of Validity

The validity of the instruments was approved by the help of the supervisor who had expertise insight. The response from the analysis of the questionnaire was used to modify the instruments to the desired degree. A pilot study was conducted to pre-test the instruments which helped in ensuring the questionnaires were appropriate for the final data collection. Some adjustments were prevailed upon on the questionnaires in order to improve the relevance of the study.

## 4.4 Diagnostics Tests

### 4.4.1 Homoscedasticity

According to Cache (2010), when comparing data values of independent variables ad dependent variables with equal variances then this is referred to as Homoscedacity. In a scenario where the variances are unequal it is referred to as Heteroscadicity. The regression model is in most cases based on equal variances. Findings in this study have shown that the variance of the independent variables are not correlated, P=0.984 which show ($p > 0.05$) thus insignificant.

*Table 4.4.1 Equality of Error Variance Test*

| Levene's Statistics | df1 | df2 | Sig. |
|---|---|---|---|
| 1.021 | 46 | 4 | .984 |

### 4.4.2 Multicollinearity

The VIF for the stated parameters across the variables was found to be 1.452,meaning that the VIF value obtained is between 1 to 10 it can be concluded that there was absence of multicollinearity (Joshi, 2012).

In the Table 4.4.2, the Durbin Watson results were 2 showing the variables auto correlation. The value of 2 depicts no auto correlation in the sample since it's between the standard 0 and 4 (Caslin, 2009).

*Table 4.4.2 Coefficients[a]*

| Collinearity Statistics | |
|---|---|
| **Tolerance** | **VIF** |
| .689 | 1.452 |
| .922 | 1.408 |
| .889 | 1.411 |
| .674 | 1.448 |

a. Dependent Variable: Loan Performance of Commercial Banks

### 4.4.3 Auto Correlation Test

The results were carried out with a focus of understanding how independent factor financial literacy, age of customers, level of interest rates and loan repayment period affected loan performance. The study came up with a comprehensive model summary on ANOVA and regression model. The Adjusted $R^2$ of the study was found to be 0.521. The results depict independent variables chosen had 52.1% variability of the dependent variable. The adjusted R square has been adjusted for the number of predictors in the model is 0.521 it can provide unbiased estimates.

***Table 4.4.3 Model Summary***[b]

**Model Summary**[b]

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | | Durbin-Watson |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change | |
| 1 | .647[a] | .482 | .521 | 1.42891 | .120 | 1.262 | 4 | 37 | .07 | 2.000 |

a. Predictors: (Constant), Financial Literacy, Loan Repayment Period, Age of Customer, Level of interest rate.

b. Dependent Variable: Loan Perfomance of Commercial Banks

### 4.5 Descriptive Statistics

This section analyses the demographics of the respondents. The information collected under the demographics section includes the age of respondents, the gender of the respondents and the marital status.

### 4.5.1 Age of Customers

The respondents' age gap was sought and the following were the findings. Of the interviewed customers 76.7% were customers of ages between 26-35 years old, followed by customers whose age gap is between 36  to 45 years, then 17.8 % have their ages between 18 to 25 years of age then finally the least percentage of 5.5% are those who are 46-55 years of age. The chart in Figure 4.5.1 below shows the findings.

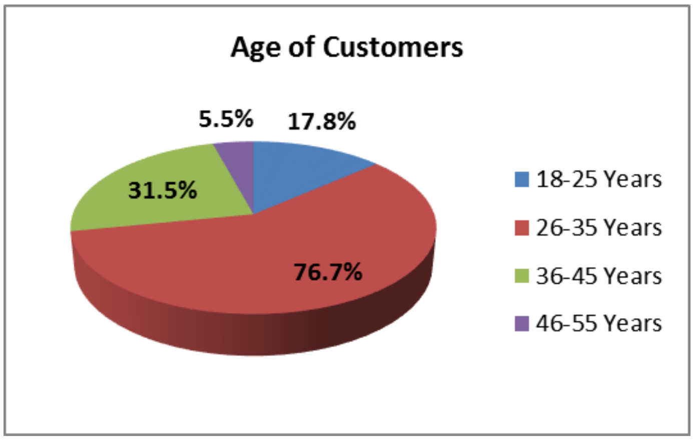


*Figure 4.5.1 Age of Customers*

### 4.5.2 Gender of the Customers

The findings indicate that of the bank customers interviewed as respondents, majority of them, that is 65.8% were female and 34.2% were male. Figure 4.5.2 illustrates this.

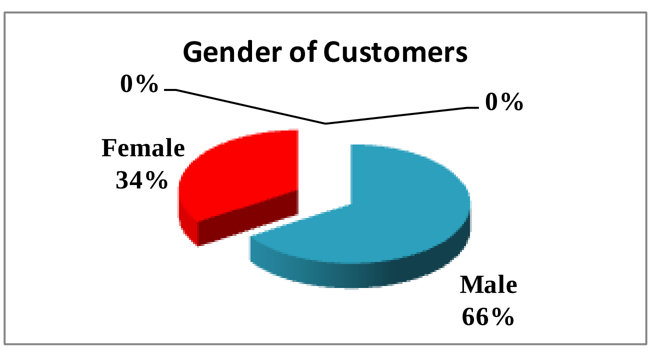


*Figure 4.5.2  Gender of Customers*

### 4.5.3 Financial Literacy Levels

According to the findings the respondents agree that they critically look at the price of goods they buy before making a purchase decision with a mean of 4.25, followed by those who agree that they often borrow to pay their debts with a mean of 3.71, those who agreed that they pay their bills on time had a mean of 3.68 and those who alluded to the fact that they do record keeping of everything including income and expenditure were at 3.53. The respondents who stated that they pay the loans they take through business proceeds of income from work had a mean of 3.12. However with a mean of 2.26 most respondents stated that they do not save from the income they earn very often. Table 4.5.1 below shows the descriptives.

*Table 4.5.1 Financial Literacy*

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| I do record keeping of Everything including income and expenditure | 73 | 1.00 | 5.00 | 3.5342 | 1.09395 |
| I critically look at the price of goods I buy before I make a decision to purchase | 73 | 1.00 | 5.00 | 4.2466 | .92467 |
| I usually save from the Income I earn | 73 | 1.00 | 5.00 | 2.2603 | 1.26960 |
| I always pay my bill on time | 73 | 1.00 | 5.00 | 3.6849 | 1.07854 |
| I often borrow to pay my debts | 73 | 1.00 | 5.00 | 3.7123 | .97865 |
| I pay my loan from my business proceeds/Income | 73 | 1.00 | 5.00 | 3.1096 | 1.32876 |
| **Valid N (listwise)** | **73** | | | | |

**4.5.4 Loan Repayment Period**

According to the findings the commercial banks customers who have taken loan for a period between 7-12 months were the highest with a percentage of 54.8% followed by customers who have taken a loan over 24 months with a percentage of 20.5%. 13% of the respondents have taken a loan that is repaid within a period of 1-6 months and finally those who have taken a loan and are paying within 13-24 months are 11% as illustrated in Table 4.5.2 below.

***Table 4.5.2 Loan Repayment***

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|
| 1-6 Months | 10 | 13.7 | 13.7 | 13.7 |
| 7-12 Months | 40 | 54.8 | 54.8 | 68.5 |
| 13-24 Months | 8 | 11.0 | 11.0 | 79.5 |
| Over 24 Months | 15 | 20.5 | 20.5 | 100.0 |
| **Total** | **73** | **100.0** | **100.0** | |

### 4.6 Correlation analysis of variables

The study variables in this study were analyzed using correlation coefficient. This analysis enlightens the scope and extent of relationship between the variables if there exists any. This study used Pearson's co-efficient of correlation used widely to measure the relationship between variables all other factors constant. The variable financial literacy, gender and age of customers in relation to loan performance had a correlation coefficient of 0.683 and 0.96 respectively which shows a moderate and strong relationship between the two variables. Similarly age of customers as a strong positive correlation of 0.926 which explains that the more knowledgeable a customer is on financial literacy the better results for their loan performance. However, loan repayment period had a strong negative correlation which shows that the period one takes doesn't affect the loan repayment.

*Table 4.6.1 Correlations of Variables*

| | | Loan Perfomance | Financial Literacy | Loan Repayment period | Gender of Customers | Age of Customers |
|---|---|---|---|---|---|---|
| Loan Perfomance of Commercial Banks | Pearson Correlation | 1 | | | | |
| | Sig. (2-tailed) | | | | | |
| Financial Literacy | Pearson Correlation | .683 | 1 | | | |
| | Sig. (2-tailed) | .014 | | | | |
| Loan Repayment Period | Pearson Correlation | -.003 | -.013 | 1 | | |
| | Sig. (2-tailed) | -.021 | .024 | | | |
| Gender of Customer | Pearson Correlation | 0.04 | 0.03 | | 1 | |
| | Sig. (2 –tailed) | 0.09 | 0.12 | | | |
| Age of Customers | Pearson Correlation | .926* | -.481** | -.141 | | 1 |
| | Sig. (2-tailed) | .034 | .000 | .007 | | |

### 4.7 Regression Analysis

### 4.7.1 ANOVA

The ANOVA results confirm that the regression model was adequate. The processed data shows that the population parameters had a significance level of 0.001 which shows that with the research data used in this study, it is right to concluded based on these parameters since it is less that 5%. The F test ratio was found to be 12.2 with a P- value of 0.001 which is less than 0.05 ($P<0.05$) depicting its significance level.

*Table 4.7.1 ANOVA*

**ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 10.304 | 4 | .2576 | 12.2 | .001[b] |
| | Residual | 75.546 | 37 | .2042 | | |
| | Total | 85.849 | 41 | | | |

a. Dependent Variable: Loan Perfomance of Commercial Banks

b. Predictors: (Constant), Financial Literacy, Loan Repayment Period, Age of Customer, Level of interest rate,

### 4.8 Regression Model

The equation below shows a filled up model by Regression results.

$$Y = 0.032 + 0.028X_1 + 0.054\,X_2 + 0.035X_3 - 0.003X_4$$

This indicates the results of regression co-efficient indicating an existence of a significant relationship between financial literacy and loan performance ($\beta = 0.028$, $P<0.05$) which implies that there is a change magnitude of 0.028 in every unit change of financial literacy. The age of customers had ($\beta = 0.054$, $P<0.05$), these results showed that in every change of the magnitude of 0.054 there is a unit change on the age of the customer.

The gender of customers results was (β = 0.035, P< 0.05), these results depicted that other variables remaining constant the gender of gender of customer will change at a magnitude of 0.035. Finally loan repayment period had (β = - 0.036, P < 0.05) which means there is a negative relationship that is significant between loan repayments period and financial literacy.

From the regression equation if all factors are held constant the loan performance of commercial banks would be 0.032. Further if all other variables are held constant, a unit increase in the financial knowledge will lead to a 0.028 increase in loan performance of commercial banks in Kenya, a unit increase in the age of customer and interest rates at 0.054 and 0.094 respectively will lead to increase in loan performance of commercial banks in Kenya, where as a unit increase in the loan repayment period will lead to a decrease in loan performance by 0.003.

***Table 4.8.1 Regression***

**Regression Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | .032 | .024 | | 1.329 | .0192 |
| | Financial Literacy | .028 | .056 | -.092 | -.497 | .0062 |
| | Age of Customer | .054 | .028 | -.308 | -1.919 | .0063 |
| | Gender of Customers | .035 | .03 | -.412 | .2167 | .0030 |
| | Loan Repayment Period | -.036 | .033 | -.226 | -1.201 | .0023 |

a. Dependent Variable: Loan Performance of Commercial Banks

## 4.9 Discussion of Findings

This study used Pearson's co-efficient of correlation used widely to measure the relationship between variables. The findings of this study were that there is a strong positive correlation between financial literacy and loan performance. The variable financial literacy and age of customers in relation to loan performance had a correlation coefficient of 0.683 and 0.96 respectively which shows a moderate and strong relationship between the two variables. Respectively, these findings supported Obago (2014), where also findings showed a positive relationship between financial literacy and loan performance. The study findings also supported Macharia (2010) findings that concluded age of customers relations with financial literacy, the study found a strong positive correlation of 0.926 which explains that the more knowledgeable a customers is on financial literacy the better results for their loan performance. The gender of customers was found to be having a correlation of 0.35 with financial literacy whereas the loan repayment period had a negative correlation of -0.003 with financial literacy.

The ANOVA results confirm that the regression model was adequate. The F test ratio was found to be 12.2 with $p= 0.001$ which shows $p<0.05$ depicting its significance level. These results supported the findings of Mwangi (2012) who found that age had a positive correlation to financial literacy; thereafter the study also found out that gender had a moderate relationship with financial literacy. Interest rates level was depicted as a having a strong significant relationship to financial literacy with the study showing customer reservations to taking loans when the interest rate is increased. The findings showed that majority of respondents were between 26-35 years. This is referred to as youthful age gap and it is perceived to be the age group where one starts career after college education.

The finding also shows that the banks can consider providing this section of customers with enough financial literacy skills in order to improve loan performance. The financial literacy findings also depicted the respondents between 26-35 years had a low extent practice of savings. The bank customers are increasingly dynamic and savings is one of the major targets of commercial banks in order to improve on its performance and also reduce the chances of poor loan performance.

The findings have shown that the relationship between financial literacy and loan performance is significant with a correlation of 0.028. According to Obago (2013), the study got similar findings that financial literacy had important implication on management of finance among the employees of commercial banks in Kenya. The more knowledge one has on financial matters the less possibility of default on loan thereby improving loan performance. These findings also support Chan et al (2000), the study found out that the more knowledge individuals are in a better position to make financial decisions that are sound.   According to findings majority of respondents have taken loans and are repaying within a period of 7-12 months at 54.8%.This shows that loans advanced are short term. The correlation coefficient of 0.03 depicts that even though significant it shows a relatively weak relationship loan repayment period and performance of the loan.

# CHAPTER 5: SUMMARY, CONCLUSIONS AND RECOMMENDATION

## 5.1 Introduction

This chapter covers the summary of findings, conclusions, recommendation, limitation of study and suggestions for further study.

## 5.2 Summary of findings

This study was looking on the effect financial knowledge of customers has on commercial banks loan performance. The study used descriptive research with customers in the commercial banks across Kenya being the target. Simple random sampling design was used to select 100 respondents from the 43 commercial banks in Kenya. The study used a combination of both primary and secondary data. Findings were as a result of descriptive, regression and correlation analysis which was used to measure the variable relationship between financial literacy of customers and loan performance.

From the findings, majority of bank customers interviewed were youth 76.7 % < 35 years. The study findings also showed that majority of bank customers were male at 66% and 54.8% of customers in the bank preferred to take loan in the period of 7-12 months. The findings also show that the bank customers are financially literate however savings has the lowest mean 2.26 meaning most customers don't save from their income.

The results of regression analysis indicated an existence of a significant relationship between financial literacy and loan performance $\beta = 0.028$, $p<0.05$ which implies that there is a significant relationship between financial literacy and loan performance. The F test ratio was found to be 12.2 with a p- value of 0.001 which is less than 0.05 ($p<0.05$) depicting its significance level. The age of customers had $\beta = 0.054$ with $p <0.05$, this shows that there was a significant relationship between age of customers and loan repayment. Finally loan repayment period had $\beta = - 0.036$, $p < 0.05$ depicting a negative effect on loan performance.

The findings also show the variables under this study, financial literacy, age of customers and gender had a moderate and strong correlation coefficient which shows a moderate and strong correlation respectively. This means that any effect of age of customers, gender and financial literacy would directly affect loan performance of commercial banks in Kenya. The commercial bank strategists need to empower these specific groups with financial knowledge with an aim of improving loan performance.

## 5.3 Conclusion

According to the study findings it can be concluded that the level of financial literacy of customers of the commercial banks in Kenya would affect the loan performance of commercial banks Kenya. There is a strong and positive correlation which means that the more the commercial banks work on improving the financial knowledge of customers then loan performance of the commercial banks will improve.

The findings conclude that most of commercial bank customers are within age of 25-35 years old. This means banks have a big population of youth who should be targeted in order to improve loan performance. Commercial banks should endeavor to train more of this age group on financial literacy with an aim of improving general loan performance.

The gender of customers' findings gives a conclusion that there are more male customers at 66% than female at 34%. This concludes that men are majority of commercial bank customers. The bank can focus on lending more to this group with an intention of improving loan performance.

Generally, these findings conclude that financial literacy is a key component in loan performance and there must emphasis on ensuring we improve the level of financial literacy within the commercial banks customers in order to improve loan performance. Age of customers ,gender and financial literacy have shown a positive relationship with loan performance indicating that the bank should highly consider these parameters in its strategy to improve loan performance. On the other hand loan repayment period has a negative relationship with loan performance meaning there should be keen consideration on how long one is expected to pay back the loan they have taken by the commercial banks.

**5.4 Recommendations**

The banks should embark on aggressive drive on financial literacy trainings to ensure that their customers have skills that will help them make sound financial decision in-order to avoid loan defaults and improve loan performance. This means banks will make more profits and improve on the loan performance ration.

On the other hand, the study recommends the bank and other financial institution players to look at the big percentage of the youth revealed in this while making product and services. With the introduction of mobile banking this group can become more active on-line thus reducing the traditional banking systems which in turn will cut down costs. Authorities and banks also need to invest more on the youth group through enacting policies that are friendly to the youth. This will make the banking industry more attractive and habitable.

Customers at a personal level should endeavor to implement the best practices on financial literacy as educated in different forums. There should be a personal drive to attend seminars and trainings in order to learn more on financial prudence this in turn will lead to business growth and better financial management skills.

## 5.5 Limitations of Study

The research work generally demanded a lot of time in-order to ensure that the data collection and preparation of the research work was done adequately, this led to an extension of data collection period. After the extension, the time available was adequate to get meaningful data for the study.

Initially the respondents were skeptical but after assurance that the information was for study and would be used for that purpose only the feedback got to be very well. The data feedback and the collection process were very smooth and went within the timeline that had been stipulated by the researcher.

## 5.6 Suggestions for further Study

Financial literacy covers a big scope of variables therefore more studies can be done measuring different variables of financial study other than the ones studied in this paper. This can in-turn expand the scope of study and comparison for other researchers by looking into details some components of financial literacy such as credit control skills, budgeting process and expenditure controls.

The other very key area of study that can come out of this study is the specific group of customers in different industries. More study can be done to ensure that the researcher look into specific groups of customers, such as employed customers, business people or students, whereas using the same variables in this study. This will bring about a new perspective of study.

The findings of this study were in a way limited to the contextual scope as a result of the size of the sample that was used herein. Some of the aspects that ought to be identified to further the study is change of time and allocation of enough resources in order to do an in depth analysis of the same area of research. Surveys need to be carried out to generate more represent able analysis, some of the areas that can be used to further this study is refined research tools designed for further research conducted.

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# APPENDICES

## APPENDIX I: Questionnaire

The aim of this study is to analyze the effect of financial literacy on loan performance among commercial banks in Kenya a case study of Equity Bank Mombasa County. All responses provided in this study shall be used for academic purposes and will be kept confidential.

**SECTION A: Respondents personal Information**

**PART A: BIO DATA**

*Instruction: tick in the spaces provided.*

| **Variable** | **Investor's Grouping** | Tic**k (√) Appropriately** |
|---|---|---|
| 1. Age | 18-25 years | |
| | 26-35 years | |
| | 36-45 years | |
| | 46-55 years | |
| | Above 55 years | |
| 2. Gender | Male | |
| | Female | |
| 3. Marital Status | Married | |
| | Single | |
| | Medium | |
| | Low | |
| 4. Loan Repayment Period | **1- 6 Months** | |
| | 7 - 12 Month | |
| | 13- 24 Months | |
| | Over 24 Months | |

**SECTION B: Financial Literacy**

| The following statements represent financial literacy related questions. Please indicate your level of agreement to each of the following items as related to financial literacy using the scale of 1 – 5 where 1=Strongly disagree; 2= Disagree; 3=Neutral; 4= Agree and 5= Strongly agree | To what extent? | | | | |
|---|---|---|---|---|---|
| | **Strongly** | **Disagree** | **Neutral** | **Agree** | **Strongly agree** |
| | 1 | 2 | 3 | 4 | 5 |
| a) I do record keeping of everything including income and expenditure. | | | | | |
| b) I critically look at the price of goods I buy before I make a decision to purchase. | | | | | |
| c) I spend all the money I get on a daily basis not mindful of the days coming. | | | | | |
| d) I always pay my bills on time | | | | | |
| e) I keenly analyse terms of loan agreement before I sign the document. | | | | | |
| f) I keep a close watch on my financial affairs | | | | | |
| g) I borrow money for my personal use and pay with my business income. | | | | | |
| h) I always experience unexpected significant reduction of income during low seasons. | | | | | |
| i) I often apply for a loan when I don't manage to make ends meet when my income suddenly drops. | | | | | |
| h) I often borrow to pay back other debts. | | | | | |
| i) I pay my loan using proceeds from my business | | | | | |
| j) I usually save from the income I earn. | | | | | |

## APPENDIX II: List of Commercial Banks in Kenya

1. Imperial Bank Ltd.
2. I & M Bank Ltd.
3. Habib Bank Ltd.
4. Habib Bank A.G Zurich.
5. Gulf African Bank Limited.
6. Guardian Bank Ltd.
7. Giro Commercial Bank Ltd.
8. First community Bank Limited.
9. Fina Bank Ltd.
10. Fidelity Commercial Bank Ltd.
11. Family Bank Limited.
12. Equity Bank Ltd.
13. Victoria Commercial Bank Ltd.
14. UBA Kenya Bank Limited.
15. Trans-National Bank Ltd.
16. Standard Chartered Bank Kenya Ltd.
17. Prime Bank Ltd.
18. Paramount Universal Bank Ltd.
19. Oriental Commercial Bank Ltd.
20. NIC Bank Ltd.
21. National Bank of Kenya Ltd.
22. Middle East Bank (K) Ltd.
23. K-Rep Bank Ltd.
24. Kenya Commercial Bank Ltd.
25. Jamii Bora Bank Limited
26. Equatorial Commercial Bank Ltd.
27. Ecobank Kenya Ltd.
28. Dubai Trust Banks
29. Diamond Trust Bank Kenya Ltd.
30. Commercial Bank of Africa Ltd.
31. Charterhouse Bank Ltd
32. Citibank N.A Kenya
33. Bank of Africa Kenya Ltd.
34. Barclays Bank of Kenya Ltd.
35. Credit Bank Ltd.

35\. Bank of Baroda (K) Ltd.

36. Consolidated Bank of Kenya Ltd.
37. CFC Stanbic Bank Ltd.
38. Development Bank of Kenya Ltd.
39. African Banking Corporation.
40. Co-operative Bank of Kenya Ltd.
41. Chase Bank (K) Ltd
42. Bank of India

(**KBA, 2017)**

# APPENDIX III: Tabulation of raw data.

| CUSTOMERS | GENDER | AGE | FINANCIAL LITERACY | REPAYMENT PERIOD(MONTHS) | LOAN PERFOMANCE |
|---|---|---|---|---|---|
| **KCB BANK** | MALE | 36- 45 | S. AGREE | 7-12 | 0.05 |
| **STANCHART** | MALE | 18-25 | NEUTRAL | OVER 24 | 0.08 |
| **BARCLAYS BANK** | FEMALE | 18-25 | AGREE | 7-12 | 0.13 |
| **BANK OF INDIA** | FEMALE | 26-35 | NEUTRAL | 1-6 | 0.07 |
| **BANK OF BARODA** | MALE | 46-55 | NEUTRAL | 7-12 | 0.02 |
| **COM. Of AFRICA** | MALE | 18-25 | AGREE | 13-24 | 0.06 |
| **PARAMOUNT** | FEMALE | 18-25 | DISAGREE | 1-6 | 7.27 |
| **CORPORATIVE** | MALE | 26-35 | S. AGREE | 13-24 | 0.06 |
| **NATIONAL BANK** | MALE | 18-25 | NEUTRAL | 7-12 | 2.59 |
| **ORIENTAL BANK** | FEMALE | 26-35 | NEUTRAL | 13-24 | 0.41 |
| **CITIBANK BANK** | FEMALE | 18-25 | DISAGREE | OVER 24 | 0.10 |
| **HABIB BANK** | MALE | 36-45 | AGREE | 7-12 | 0.05 |
| **MIDDLE E. BANK** | MALE | 36-45 | AGREE | 13-24 | 0.10 |
| **BANK OF AFRICA** | MALE | 18-25 | AGREE | 7-12 | 5.94 |
| **CONSOLIDATED** | FEMALE | 26-35 | S.DISAGREE | 13-24 | 0.31 |
| **CREDIT BANK** | FEMALE | 36-45 | NEUTRAL | 7-12 | 0.25 |

| CUSTOMERS | GENDER | AGE | FINANCIAL LITERACY | REPAYMENT PERIOD(MONTHS) | LOAN PERFOMANCE |
|---|---|---|---|---|---|
| **STANBIC BANK** | FEMALE | 26-35 | DISAGREE | 13-24 | 0.40 |
| **TRANSNATIONAL** | FEMALE | 18-25 | NEUTRAL | OVER 24 | 0.82 |
| **AFRICAN BANK** | MALE | 26-35 | S. DISAGREE | 7-12 | 0.22 |
| **NIC BANK** | MALE | 26-35 | S. DISAGREE | 7-12 | 0.10 |
| **ECO BANK** | FEMALE | 18-25 | S. DISAGREE | 7-12 | 0.12 |
| **F. COMMUNITY** | FEMALE | 18-25 | AGREE | 13-24 | 0.39 |
| **PARAMOUNT** | MALE | 18-25 | DISAGREE | OVER 24 | 0.34 |
| **JAMII BORA** | FEMALE | 26-25 | AGREE | 7-12 | 0.12 |
| **GUARDIAN BANK** | MALE | 36-45 | AGREE | OVER 24 | 0.21 |
| **I&M BANK** | FEMALE | 26-35 | DISAGREE | 7-12 | 1.27 |
| **VICTORIA BANK** | FEMALE | 26-35 | S. DISAGREE | 13-24 | 0.00 |
| **GUARANTEE** | FEMALE | 3.00 | AGREE | 13-24 | 0.11 |
| **DEVELOPMENT** | MALE | 18-25 | NEUTRAL | 7-12 | 0.01 |
| **SBM BANK** | MALE | 26-35 | NEUTRAL | 7-12 | 0.22 |
| **DIAMOND TRUST** | MALE | 26-35 | AGREE | OVER 24 | 0.59 |
| **MAYFAIR BANK** | FEMALE | 26-35 | AGREE | 13-24 | 0.08 |
| **SIDIAN BANK** | FEMALE | 26-35 | NEUTRAL | 13-24 | 0.21 |
| **EQUITY BANK** | FEMALE | 18-25 | AGREE | 7-12 | 0.07 |
| **FAMILY BANK** | FEMALE | 36-45 | DISAGREE | 7-12 | 0.20 |