IMPACT OF MACROECONOMIC FACTORS ON FINANCIAL PERFORMANCE OF DEPOSIT-TAKING MICRO FINANCE INSTITUTIONS IN KENYA

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A RESEARCH PROJECT REPORT SUBMITTED TO THE DEPARTMENT OF BUSINESS AND ENTREPRENEURSHIP IN THE SCHOOL OF BUSINESS AND ECONOMICS IN FULFILMENT FOR THE REQUIREMENT OF THE AWARD OF THE DEGREE OF MASTERS OF BUSINESS ADMINISTRATION OF SOUTH EASTERN KENYA UNIVERSITY

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DECLARATION

This research project report is my original work and has never been submitted for a degree or any other award in any other university.

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DEDICATION

I dedicate this piece of work to my family members and my class mates whose understanding, care and support has brought me this far.

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I give thanks to the almighty God for his guidance throughout the tough journey which would not have been successful without his grace. I sincerely acknowledge and thank my supervisor Dr. Jared Ariemba and Anne Christine Kabui who tirelessly guided and encouraged me throughout my study. I also acknowledge and thank my family members for their encouragement, understanding and financial support the accorded to me throughout the study.

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LIST OF ABBREVIATIONS

MFIs: Micro finance institutions

CBK: Central Bank of Kenya

AMI: Association of microfinance institutions

SMEP: Small and micro enterprise programme

DTMFIs: Deposit taking microfinance institutions

BOP: Balance of payments

GDP: Gross Domestic Product

EBIT: Earnings before Interest and Tax

ROA: Return on assets

CPI: Consumer price index

DEFINITION OF TERMS

Micro finance Microfinance involves the provision of financial services such as savings, loans and insurance to poor people living in both urban and rural settings who are unable to obtain such services from the formal financial sector. (Ledgerwood, 1999)

Financial performance It is the subjective measure of how well a firm can use Assets from its primary mode of business and generate revenues. (Novak, 2008).

Deposit Taking

Microfinance Institutions Are institutions which receive money by way of deposits and interests earned on deposit and lend the money to members for use to Finance the business in small and medium enterprises of low income households. (Microfinance Act, 2006)

Inflation Is sustained or persistent increase in the general prices of goods and services in the long run. (McMahon, 2010)

Gross Domestic Product Is the total market value (the amount that a product would trade for in the open market) of all goods and services produced within a specific a location over a particular time period. (Callen, 2008)

Exchange Rate Is determined by the demand and supply of the foreign currency (BOP), trade balance, current account balance and capital account balance. (Schiller, 2008)

Gross National Saving Is gross disposable income less final consumption expenditure after taking. (SNA, 1993)

Employment Rate Is a function of the level of activity and wages and, as a consequence, differs markedly from one model to the next. (Nickell, 2005)

ABSTRACT

The study focused on the impact of macroeconomic variables on financial performance of deposit taking microfinance institutions in Kenya. The specific objectives were to assess the impact of inflation on the financial performance of deposit taking microfinance institutions in Kenya, to ascertain the influence of gross domestic product growth rate on the financial performance of deposit taking MFIs in Kenya, to examine the relationship between exchange rate and financial performance of deposit taking MFIs in Kenya, to determine the impact of national saving rate on the financial performance of deposit taking MFIs and to find out the impact of employment rate on the financial performance of deposit taking MFIs in Kenya. The target population of the study was all the nine (9) deposit taking microfinance institutions in Kenya registered with the central bank of Kenya (2014). Secondary data was collected on all the microfinance institutions financial data from the Central Bank of Kenya periodicals, macroeconomic data was collected from the National bureau of statistics and the central bank of Kenya for a period of ten years between 2005 and 2014. Data was analyzed using a multiple regression analysis model using SPSS version 20.0 as the data analysis tool. The findings of this study are; there is a negative relationship between inflation rate and financial performance of deposit-taking micro finance institutions in all the years studied. This means that an increase in inflation coursed a decrease in financial performance of deposit-taking micro finance institutions in all the years studied. There was a positive relationship between gross domestic product and financial performance of deposit-taking micro finance institutions in all the years studied. This means that an increase in gross domestic product coursed an increase in financial performance of deposit-taking micro finance institutions in all the years studied. There was a positive relationship between exchange rate and financial performance of deposit-taking micro finance institutions in all the years studied. This means that an increase in exchange rate coursed an increase in financial performance of deposit-taking micro finance institutions in all the years studied, there was a positive relationship between national savings rate and financial performance of deposit-taking micro finance institutions in all the years studied. This means that an increase in inflation coursed an increase in financial performance of deposit-taking micro finance institutions in all the years considered. There was a positive relationship between employment rate and financial performance of deposit-taking micro finance institutions in all the years studied. This means that an increase in employment rate coursed an increase in financial performance of deposit-taking micro finance institutions in all the years studied. The recommendations of the study are; The Government should closely monitor and prudently manage the macroeconomic variable in order to spur greater financial performance as they explain a higher variation in financial performance of the deposit taking microfinance institutions in Kenya. The government should also control Inflation since it has an adverse impact on the financial performance of deposit taking microfinance institutions in Kenya. Lastly the government should strive to improve the country's GDP, National savings and employment rate as they positively affect the financial performance.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

This chapter will examine the background of the study, the statement of the problem, objectives of the study the research questions, significance of the study and the scope of the study. The limitations and delimitations of the study are also discussed.

Microfinance according to Otero (1999) is "the provision of financial services to low income, poor and very poor self-employed people". These financial services according to Ledgerwood (1999) generally include savings and credit but can also include other financial services such as insurance and payment services. Therefore microfinance involves the provision of financial services such as savings, loans and insurance to poor people living in both urban and rural settings who are unable to obtain such services from the formal financial sector. According to Microfinance Act (2006) Deposit-taking microfinance institutions are institutions which receive money by way of deposits and interests earned on deposits and lend the money to members for use to finance the business in small and medium enterprises of low income households. Macroeconomic factors which prevail in the external environment, affect the financial performance of microfinance institutions both positively and negatively since when adverse, they hamper members' ability to spend and to save, MFIs profits are reduced.

McGraw& HillIrwin (2002).Kenya's microfinance sector comprises of nearly of 250 MFIs, with only 50 of these being registered with their umbrella body, Association of Microfinance institutions (AMI).Only eleven of these are licensed by CBK to take

deposits. The eleven deposit taking microfinance institutions according to the central bank of Kenya (2014) are Sumac microfinance bank, U&I microfinance bank, Faulu Kenya, Kenya women finance trust, Rafiki microfinance bank, Small and micro enterprise programme (SMEP), Century microfinance, Remu microfinance , Choice, Caritus and Uwezo fund microfinance and they was the focus of this study. Several studies have been conducted on the impact of macroeconomic variables on performance of commercial banks and few studies have been conducted on deposit taking MFIs hence the researcher would want to fill the gap left.

1.1.1 Microfinance institutions

Institute of Economic Affairs (2002) shows that that the micro-finance institutions in Kenya had followed different development paths but with the main focus of providing varying degrees of credit facilities for Kenyan borrowers in both the rural and urban areas. MFIs had developed in response to the widespread poverty in Kenya and the need to provide financing and funds for investment to people who were unable to secure loans through the conventional banking system. In recent past some MFIs have been confronted with a number of challenges that has affected their way of doing business. Competition among the MFIs has increased significantly; this has lead to lower interest rate, increased efficiency through creation of different financial products. Another key challenge has been the involvement of commercial banks in MFIs services.

1.1.2 Financial performance

Financial performance as defined by Novak (2008) is the subjective measure of how well a firm can use assets from its primary mode of business and generate revenues.

This term is also used as a general measure of a firm's overall financial health over a given period of time, and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation. To measure the financial performance of DTMFIs there are variety of ratios used of which Return on Asset, Return on Equity and EBIT are the major ones (Murthy and Sree, 2003). Financial measures are expressed in monetary units. Kharawish (2011).The techniques widely used for analytical purposes include; ratio analysis, trend analysis and cross sectional analysis. A ratio is a mathematical expression of an amount in terms of another. Chandra (2005) noted that ratio analysis gives an objective picture of a company's financial performance because ratios eliminate the size effect. Two different firms whose sizes differ can be compared. This study will use EBIT to measure financial performance.

1.1.3 Macroeconomic Factors

According to Aghionet (2011) Macroeconomic is the study of the economy as a whole that is it focuses on the behavior of an entire economy the "big picture" which can be regional, national or international. Macroeconomic variables include interest rates, economic output, employment, unemployment, inflation, government budget balances, National saving rate and finance, international trade balances, finance and productivity. This study the researcher will consider five macroeconomic factors: Inflation, Gross Domestic product, Exchange rate, national saving rate and employment rate.

McMahon (2010) defines Inflation as a sustained or persistent increase in the general prices of goods and services in the long run. This is primarily brought about by the

increase in earning which is not proportionate with the increase in the production of goods and services. Due to the case of more money chasing few goods general prices of goods and services are bound to increase leading to significant reduction in disposable income and the purchasing power of the low income earners bracket of population. Inflation was measured by average annual rate of inflation. Average inflation is the arithmetic mean for of the month by month inflation normally reported by the Kenya National Bureau of Statistics for each of the twelve months forming one year.

According to Schiller (2008) the exchange rate is determined by the demand and supply of the foreign currency (BOP), trade balance, current account balance and capital account balance. Exchange rate is the value of a country's currency against that of another country. Average exchange rate used in this study was the exchange rate of the Kenyan shilling against the USA dollar. This study will compare exchange rate movements of the Kenyan shilling against the US dollar.

Callen (2008) defines Gross Domestic Product (GDP) as the total market value (the amount that a product would trade for in the open market) of all goods and services produced within a specific location over a particular time period. GDP includes all products that are sold in the home market as well as some non-market items like educational services paid for by the government. GDP for Kenya is measured by the annual economic growth rate.

According to system of national accounting (SNA, 1993) Gross National Saving is gross disposable income less final consumption expenditure after taking account of an

adjustment for pension funds. For many countries, the estimates of national saving are built up from national accounts data on gross domestic investment and from balance of payments-based data on net foreign investment. Despite the financial liberalization in Kenya, savings rates have generally remained very low. (Kahangi & Muturi, 2013) stated that Kenya's development road map dubbed the vision 2030 stipulates that by the year 2030, Kenya shall be a middle income country and one of the ways of achieving this is to encourage saving among the Kenyan households because this contributes to national economic growth. According to Ariemba, Kiweu, & Riro(2015). Kenya's gross domestic savings ratio has an average of only 14.6 percent of GDP through the period 1970 – 2013.national saving rate is measured by annual rate reported by the government. GDP growth rate is the proxy for economic growth and is the arithmetic average growth for twelve months as reported by the Kenya National Bureau of Statistics.

Nickell (2005) explained that employment is a function of the level of activity and wages and, as a consequence, differs markedly from one model to the next. He argued that employment equations can include variables such as wages, the level of prices, income taxes, employment taxes, output, and population of working age. Ikiara and Ndungu (1996) on their part linked employment changes to nominal wage earnings, inflation, recurrent government expenditure and the exchange rate. Employment rate was measured by the national employment rate measured by the government.

Macroeconomic variables have an impact the financial performance of micro finance institutions in the following ways: inflation reduces people disposable income and reduces people capacity to save and reduces the spending power of individuals. This

will mean that the profits of MFIs will decline since fewer loans interest was earned. Gross Domestic Growth rate will influence financial performance in relation with the level. In times of upwards fluctuations then profitability is increased and times of downward fluctuations the performance is low. Exchange rates stability means stable profits for the microfinance institutions while devaluation of the local currency against the US dollar means low performance.

1.2 Statement of the problem

Several studies about microfinance institutions performance have been conducted at different parts of the world, Krauss and Walter (2009) did a study on the global financial crisis affected microfinance institutions (MFIs) as lending growth was constrained by scarcer borrowing opportunities, while the economic slowdown negatively impacted asset quality and performance. It also brought to the fore the relatively high interest rates that MFIs charge to their (low-income) customers.

Ahlin, Lin & Maio (2011) found out that macroeconomic condition has an impact on the MFIs performance, Muriu (2011) found out that the macroeconomic condition has no impact on the MFIs' performance. Similarly some studies have attempted to link the economic growth and performance of the microfinance institutions. These studies, however, are not fully complete, since they only look at one aspect of microfinance success. MFIs do not only seek to maximize financial returns, but also try to maximize poverty assistance, or outreach to poor. Indeed, goal of poverty relief may be what defines microfinance as separate from commercial banks.

In Kenya Njunguna (2013) on the impact of Macroeconomic factors on the financial performance of deposit taking microfinance institutions in Kenya. He concluded that macroeconomic factors have an impact on financial performance of deposit taking MFIs. In other words Micro financing area has been widely researched in Kenya but there are contradictory results and conclusions from the studies i.e some give a positive impact of macroeconomic factors on financial performance of deposit taking Microfinance institutions while others give negative impact of macroeconomic factors on financial performance of deposit taking microfinance institutions in Kenya. This fact together with findings of previous studies carried elsewhere in the world become a good motive for this study to find out the Impact of macroeconomic factors on the MFIs' financial performance in Kenya.

1.3 General objective of the study

The general objective of this study was to assess the impact of macroeconomic factors on the financial performance of deposit taking micro-finance institutions Kenya.

1.3.1 Specific objectives of the study

i. To assess the impact of inflation on the financial performance of deposit-taking micro finance institutions in Kenya.

ii. To ascertain the influence of Gross Domestic Product growth rate on the financial performance of deposit-taking microfinance institutions in Kenya.

iii. To examine the relationship between exchange rate and financial performance of deposit- taking microfinance institutions in Kenya.

iv. To determine the impact of national saving rate on the financial performance of deposit taking micro finance institutions in Kenya.

v. To find out the impact of employment rate on the financial performance of deposit-taking micro finance institutions in Kenya.

1.4 Research questions

i. What are the effects of inflation on the financial performance of deposit-taking microfinance institutions in Kenya?

ii. How does Gross Domestic Product growth rate affect the financial performance of deposit-taking microfinance institutions Kenya?

iii. In what ways does exchange rate affect the financial performance of deposit-taking microfinance institutions in Kenya?

iv. How does national savings rate affect the financial performance of deposit taking micro finance institutions in Kenya?

v. What are the effects of employment on the financial performance of deposit taking micro finance institutions in Kenya?

1.5 Significance of the Study

This study is hoped to be of importance to several stake-holders in Kenya. Of these; the micro finance institutions themselves will know the economic conditions best for high performance that is they was in a position to analyze the best condition of inflation, GDP, Exchange rates national savings and employment rate that maximizes their performance. The study may also benefit the government in its regulatory role through the Central Bank of Kenya so as to determine the effectiveness of its regulatory guidelines. This may act as guidance in legislation during reviews Microfinance Act and even licensing of MFIs and policies formulations.

Other researchers will also benefit from the documentation of the research on the influence of macroeconomic factors on financial performance of deposit-taking microfinance institutions in Kenya. This study will used as empirical study by other researchers in the area and other related areas. Lastly the research will form a basis of

further research in this particular field. The findings of the study will add to body of existing knowledge to the academicians.

1.6 Scope of the Study

The scope of the study was deposit-taking microfinance institutions in Kenya and covered all nine (9) registered deposit-taking microfinance institutions according to the central bank of Kenya. The study considered data on trade analysis of macroeconomic variables for ten years between 2009 and 2014 from the Kenya National Bureau of Statistics. Published financial data of the microfinance institutions regulated by the central Bank of Kenya was used to measure performance of the deposit-taking microfinance institutions in Kenya.

1.7 Limitation and Delimitation of the study

The study was confined to the case of DTMFIs hence the research findings may not be entirely generalized to the entire financial sector and microfinance sector. This limitation can be minimized by conducting other research in a wide geographical area.

This study is based on a test on five independent variables namely inflation, GDP , Exchange rate, National savings and employment rate whereas there are other macroeconomic variables that affect EBIT such as interest rate. This limitation can be avoided by including all the macroeconomic variables in the study as independent variables. The study only relied on EBIT as a measure of financial performance whereas there are other parameters that can be used to measure financial performance such as Return on Capital Employed (ROCE).

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter contains a review of literature on the subject proposed for study and organized under the following sub-headings, theoretical studies review, empirical review, summary of gaps that need to be filled by the study and the conceptual framework. There are a number of studies that have attempted to develop theoretical and empirical works to understand the effects of Macroeconomic factors on financial performance of deposit taking MFIs in Kenya.

2.2 Theoretical framework

The study was guided by views on various theories of macroeconomic factors and financial performance.

2.2.1 Deflation Theory

The theory was proposed by Fisher (1933) which suggested that fall on inflation rates leads to fall in the level of prices, which leads to greater fall in the net worth of business, reduced profitability hence precipitating bankruptcies which leads the concerns running at a loss to make a reduction in output, in trade and in employment of labour. The cycles cause complicated disturbances in the rates of interest and a fall in the money value. The complicated disturbances described above can be summed as both external and internal forces (macro and micro factors) influencing state of over-indebtedness existing between, debtors or creditors or both which can compound to loan defaults.

According to this theory, if inflationary pressures from the fiscal stance are being transmitted exclusively through the financing channel, then inflationary pressures could be reduced without fiscal adjustment if alternative (sustainable) sources of financing, such as external financing, are available. In practice, however, some fiscal adjustment is typically also necessary because either the amount of alternative finance is insufficient and/or the fiscal stance is also putting upward pressure on prices through the aggregate demand channel. Indeed, evidence shows that successful disinflation episodes have typically been accompanied by sizable and sustained fiscal adjustment.

Therefore, countries that wish to target a significantly lower rate of inflation need to ensure that the corresponding fiscal adjustment is adequate (Phillips, 1999).In relevance to the study, the theory posits that reduced inflation rates will lead to reduced microfinance institutions revenues, reduced profitability and can lead to DTMFIs running to bankruptcy. This is contrary to the expectation that increased inflation reduces purchasing power of money, reduced real sales and increased operation costs and also interest rates in the economy. McGuire, Paul& conroy (1998) opposed to this theory argue that inflation rate is the most important macroeconomic variable since it affects all the other variables. Increased inflation rates leads to currency depreciation (affects exchange rates) as explained by purchasing power parity. Due to loss of purchasing power of money and erosion of value of money, economic growth slows down and hence negatively affecting country's GDP growth (Pandey, 2009).

2.2.2 Macroeconomist Hypothesis

The usual methods of using factor analysis approach to determine the factors affecting assets returns, some scholars have measured macroeconomic factors to explain firm return and found that changes in interest rate are associated with changes in revenue. They interpreted the observation to be reflection of changes in the rate of inflation, given the finding of Fama (1977) that changes in the rate of inflation are fully reflected in interest rates (Emenuga, 1994).

The macroeconomic approach attempts to examine the sensitivity of firms" prices to changes in macroeconomic variables. The approach posits that firm prices are influenced by changes in money supply, interest rate, inflation and other macroeconomic indicators. It employs general equilibrium approach, stressing the interrelations between sectors as central to understanding of the persistence and co-movement of macroeconomic time series, based on the economic logic, which suggests that everything does depend on Everything else (Muchiri, 2012).this theory is relevant to this study since it determines the influence of microeconomic factors on financial performance of microfinance institutions in Kenya.

2.2.3 Flow Oriented Model

This model was developed by Dornbusch and Fisher (1980). The model claims that changes in exchange rates alter the international competitiveness of a firm as well as the balance of trade position, and thus exchange rate changes affect real income and output in a country. Share prices of companies are influenced by exchange rate changes and future cash flows of firms. This implies that exchange rate changes lead to stock price returns, and that they are positively correlated. The flow oriented model maintains that a causal relationship, which runs from the exchange rate to the stock

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prices. This simply means that exchange rate changes affect the competitiveness of firms as a result of its effect on input and output prices.

It follows therefore that if exchange rate appreciates, exporters are likely to be affected negatively. In the same regard an appreciation of the currency is likely to cause goods and services to be dearer on the international market. This will therefore bring about a decline in exports, as they will be seen as expensive by buyers on the international market. It means that such goods will lose their competitiveness internationally. Consequently, their profits will drop and if profits decrease the firms will lose competitiveness on the domestic stock market. Their attractiveness on the domestic stock market will decrease and this will result in their stock prices decreasing in value.

This model is relevant to the study since it relates to macroeconomic variables being studied that is exchange rates on the impact of financial performance. This model claims that changes in exchange rates alter the international competitiveness of a firm. A microfinance institution that is competitively advantaged will report high profits than the other firms in the same industry. As such exchange rates will have an impact on the financial performance of microfinance institutions.

2.3 Empirical review

In this section, the researcher will review the existing literature surrounding financial performance of microfinance institutions in light of changes in domestic economies, and some of the explanations offered for microfinance observed resilience.

The researcher will look at different ways in which academics have measured the performance of microfinance institutions.

2.3.1 Inflation and financial performance

Inflation has an effect on the financial performance of microfinance institutions. According to Huybens and Smith (1999) on a study on the impact of inflation on financial sector performance in eleven countries; argue that an increase in the rate of inflation could have at first negative consequences on financial sector performance through credit market frictions before affecting economic growth. In fact, market frictions entail the rationing of credit which reduces intermediary activity and capital formation. The reduction of capital investment impacts negatively both on long term economic growth and equity market activity.

Cull (2007) examine the financial performance (using measures of profitability) and outreach in a large comparative study, based on a new and extensive data set of 124 MFIs in 49 countries. The study suggests that MFIs that focus on providing loans to individuals perform better in terms of profitability. Yet, the fraction of poor borrowers and female borrowers in the loan portfolio of these MFIs is lower than for MFIs that focus on lending to groups. It also suggests that individual-based MFIs, especially if they grow larger, focus increasingly on wealthier clients, a phenomenon termed as "mission drift". This mission drift does not occur as strongly for the group-based MFIs. Thus, Cull et al. do find evidence for a trade-off between efficiency and outreach. Kamau (2008) in his study on determinants of profitability of microfinance institutions stated that financial institutions including MFI's still exhibit better management ratings. The technical, organizational and communication competencies of the top managers are the most important management dimensions to explain all financial results. Under this dimension of management, the professional skills of top

managers must be emphasized. Therefore the institutions were effective in risk management performance.

There are various studies that have been conducted in Kenya on the relationship between macroeconomic factors and financial performance and their findings variables are diverse. Mwangi (2013) undertook a research in non-financial sector where the study was on the relationship that exists between macroeconomic variables and financial performance of aviation industry in Kenya. The study concluded that the macroeconomic variables influenced the financial performance of companies in the aviation industry in Kenya at 20%, level of significance (5%) The study also concluded that ROA has a weak positive insignificant correlation with GDP .It further conclude that there is a weak negative insignificant correlation between ROA and real exchange rate, annual average lending rate and annual inflation rate.

Kipngetich (2011) did a study on the relationship between interest rates and financial performance of commercial banks in Kenya and found that there is a positive relationship between interest rates and financial performances of commercial banks. Thus companies should therefore prudently manage their interest rates to improve their financial performance.

2.3.2 Gross domestic product growth rate and financial performance

The trend of GDP affects the demand for a firm asset. During the declining GDP growth the demand for credit falls which in turn negatively affect the profitability of firms, On the contrary, in a growing economy as expressed by positive GDP growth Athanasoglou (2005). The same authors state in relation to the Greek situation that the relationship between inflation level and firms profitability is remained to be debatable. The direction of the relationship is not clear Vong & Chan (2009).

Various studies have been carried out on the impact of gross domestic product and the financial performance of institutions. Krauss and Walter (2006) suggested that clients of microfinance are less integrated into financial markets and hence they are less affected by changes in the domestic economy than other borrowers in the country. Robinson (2001) noted that the goods that micro entrepreneurs sell generally see an increased demand when domestic economic conditions deteriorate, as consumers shift away from more expensive imported goods. She also notes that, fundamentally, micro entrepreneurs have stronger repayment ethics because of a desire to prove themselves or because they do not have access to other sources of credit. In addition to micro entrepreneur characteristics, Maina (2011) found that institutions who lend primarily to women offered loans with high rates and higher repayment amounts. They suggested that was because women are believed to be less risk averse. Hence, MFIs, which traditionally have focused on lending to women, may be seen to reap financial benefits from their clients' risk profiles.

2.3.3 Exchange rate and financial performance

The issue of exchange rate levels and their relationship with other major economic variables such as growth, income, current account balances, consumption and trade have led to a great deal of discussion since the beginning of the mid-2000s, in particular when global imbalances started to widen. Even if the literature has not yet achieved a definitive consensus regarding the best definition of the long-term equilibrium real exchange rate, Onyancha (2011) recall that various empirical papers have studied the impact that exchange rate overvaluations or undervaluation's can have on performance. In particular, some studies have found that overvaluation hinders financial performance.

Obadan (2009) while carrying out a study in Nigeria using the moving average standard deviation as a measure of variability also established the exchange rate plays a role in connecting the price system in different countries thus enabling traders to compare price directly. Markowitz (1952) Changes in exchange rate have a powerful effect on imports and exports of the countries concerned through effects on relative prices of goods. He considered the exchange rate to be an important conditioning variable for counter- inflationary policy. This stems from the basic make-up model of pricing and the view that nominal wages tend to adjust to price changes. Exchange rate under this condition conveys information about the fundamentals in the economy and a fast-depreciating local currency may fuel inflationary expectations.

In Kenya Muriithi (2011) did a study whose objective was to establish the relationship between foreign exchange rate and market performance for manufacturing companies. The study used a descriptive research design. His study showed that exchange rates had a positive influence on market performance. In addition, Mongeri (2011) did a study on the impact of foreign exchange rates and foreign exchange reserves on the performance of NSE share index whose objective was to determine the impact of foreign exchange rates and foreign exchange reserves on the performance of NSE index. The study used a longitudinal study design.

2.3.4 National Savings and financial performance

Bankole & Fatai (2013) examined the cause and effect relationship between domestic savings and economic performance in Nigeria during the period 1980-2010. The researchers employed the Granger-causality and Engle-Granger co-integration techniques to analyze the relationship between savings and economic growth. In addition, the granger causality test revealed that causality moves from savings to

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economic growth in Nigeria. Thus, the researchers accept the Solow's hypothesis that savings precedes economic growth but reject them Keynesian theory that it is economic growth that leads to higher savings. The researchers recommended that government and policy makers should employ policies that would accelerate domestic savings so as to increase economic growth.

Waithama (2008) analyzes the causal relationship between the rate of saving and economic growth for Kenya for the period 1960 – 2005 and examines the impulse response of a shock in savings and the effects of such a shock on GDP and investment. The results do not find causality between GDS and GDP, GDP per capita is found to Granger cause private savings. On the other hand, there appeared to be a double causality between GDS and investment. An increase in savings will cause an increase in investment and vice versa. Four variables were found to have a significant long run effect on private saving. These are; GDP growth rate, import share, export share and population growth rate. One striking variable is population growth rate which instead of having a negative impact on private saving had a significant positive impact. It would then appear that the notion of a smaller population as a mobilization tool for private savings is incorrect in the case of Kenya.

2.3.5 Employment rate and financial performance

Nickell, Nunziata, W.Ochel, &Quitini (2005) used annual data and estimated a fixed effects model with lagged dependent variable. The authors found a significantly positive influence of the unemployment benefit replacement rate, benefit duration and the tax variable density on unemployment, a significantly negative effect of wage coordination, but no significant influence of employment protection or union density. Control variables include various measures of macroeconomic shocks, which turn out

to have significant coefficients. What comes out of the estimations is that half of the rise in unemployment between the 1960s and the 1990s can be explained by macroeconomic factors, the other half depends on institutional variables concerning the labour market.

The assessment of the effect of institutional variables independently of macroeconomic factors is made more complex if the two types of influences interact with each other. This issue is tackled in Blanchard and Wolfers (2000), According to their results, labour market institutions produce high unemployment only in direct interaction with macroeconomic shocks. However, their findings are very sensitive to changes in specifications, and the use of time varying institutional variables considerably weaken their results.

2.4 Research gaps

McGuire and Conroy (1998) used survey data to observe the effects of the Asian financial crisis on microfinance institutions in nine countries by looking at percentage changes in loans, savings, total assets, and capital stocks of microfinance institutions over six-month periods from 1996 to 1998. Interestingly, they found that microfinance institutions were able to maintain relatively strong financial success, especially among those institutions that serviced poor clients. Another method of looking at microfinance financial performance is regression analysis. Krauss and Walter (2006) use regression analysis to see how microfinance institutions compare in financial indicators to commercial banks in response to world and domestic economic systemic risk. They do several analyses, looking at both world and domestic economic movements.

Sufian (2011) did a study on the impact of macroeconomic variables on the financial performance of Korean commercial banks he analyzed 11-29 Korean commercial banks during year 1992-2003.Linear regression results revealed negative impact of Gross Domestic Product (GDP) on Return on Assets (ROA), but positive impact of inflation. An empirical study by Damena (2011), on the profitability determinants of Ethiopian commercial banks used 10 years balance sheet data of 7 leading banks confirming positive effect of GDP, inflation and interest rate. Likewise, Davydenko (2011) used fixed effects estimation technique and proved that both GDP and Inflation have a positive relationship with ROA of Ukrainian banks. Saksonova and Solovjova (2011) performed comparative analysis of five largest Latvian commercial banks during period of economic crises. GDP growth had positive contribution to profits, and inflation negatively affected ROA.

In Kenya, Desaro (2012) did a study on the effect of macroeconomic variables on financial performance of commercial banks in Kenya and found out that the ROA was negatively correlated with the exchange rate and positively correlated with the GDP growth and inflation. Wanjala (2014) did a study on macroeconomic determinants of stock market performance in Kenya. The study followed descriptive research design and used secondary data. The results were that there is a positive relationship between the Stock Market Performance and the macro-economic variables However, the study results established that the relationship between inflation as measured by CPI and Stock Market Performance is inverse as the corresponding coefficient in the model was negative.

Hasanov (2010) employed annual data set on growth rate of real GDP, Consumer Price Index Inflation and growth rate of real Gross Fixed Capital Formation to investigate whether there was any threshold effect of inflation on economic growth over the period of 2001-2009. Estimated threshold model indicated that there was non-linear relationship between inflation and economic growth in the Azerbaijani economy and threshold level of inflation for GDP growth was 13 percent. Inflation rate lower than 13 percent reflected statistically significant positive effect on GDP growth but this positive relationship became negative when inflation exceeded 13 percent. He added that, economic growth was expected to decline by about 3 percent when inflation increased above the 13 percent threshold.

From the above review limited studies have concentrated on the effect of macroeconomic factors on financial performance of deposit-taking micro finance institutions in Kenya. This study therefore seeks to fill this research gap by use a survey research design and ordinary least squares model to determine the impact of microeconomic variables on the financial performance of microfinance institutions in Kenya.

2.5 Conceptual Framework

Mugenda and Mugenda (2003) said a conceptual framework is a graphical or diagrammatic representation of the relationship between variables in a study. It helps the researcher see the proposed relationship between the variables easily and quickly. The following figure gives a brief summary on the relationship between macroeconomic variables and financial performance of microfinance institutions.
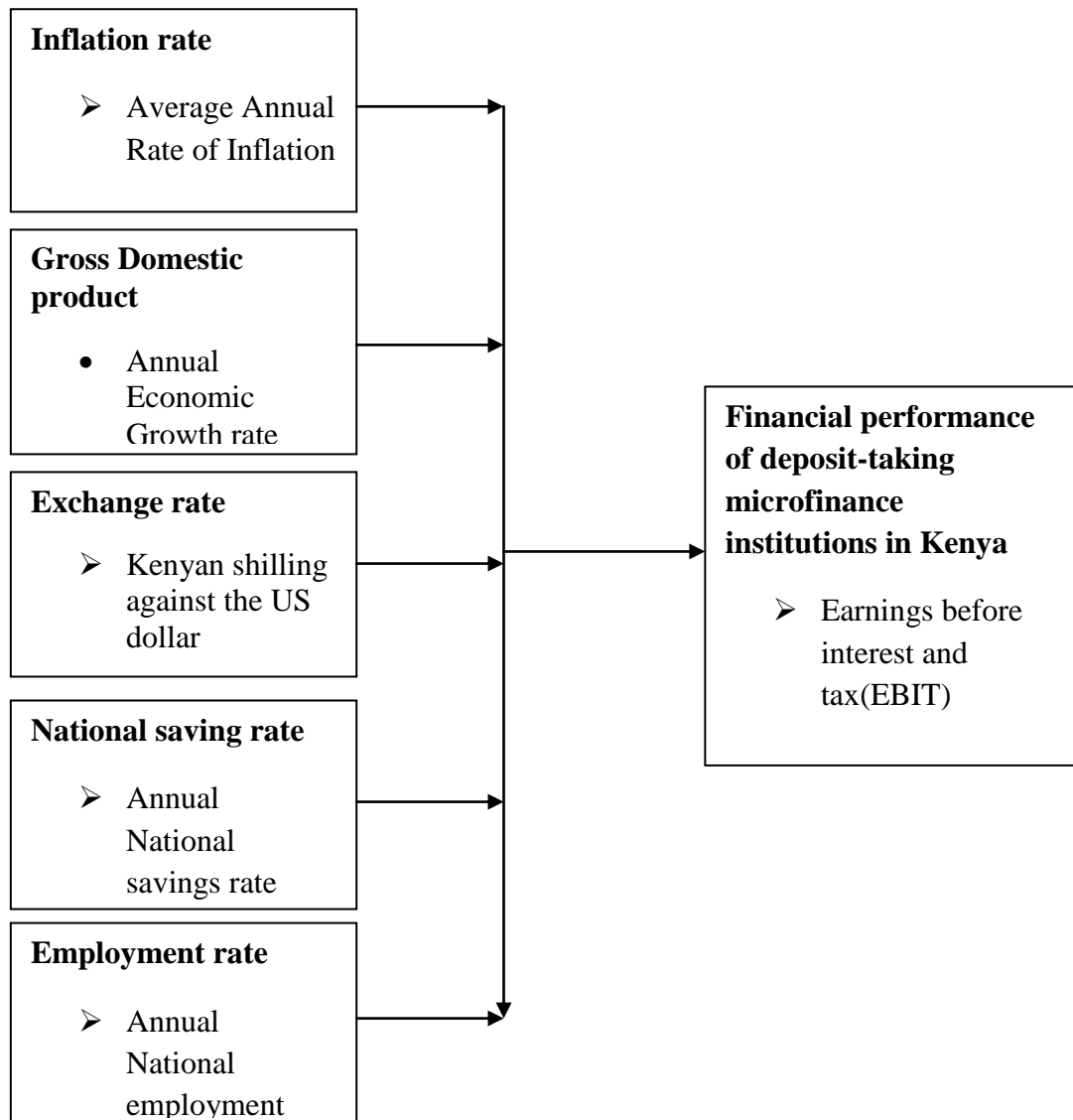
Independent variables   Dependent variable

Figure 2.1 Conceptual framework

Source: Author (2016)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This Chapter discussed the methodology that the researcher used in gathering data, processing the data and translating the collected data into meaningful information. The process of research for the study was primarily exploratory as it sought to find out if the Macroeconomic factors have influence on MFIs performance. It also discussed the research design that take into consideration aspects like the size of sample in relation to the target population, the variables under the study, the approaches to the research, and the methods to be employed in data collection.

3.2 Research Design

Research design refers to a detailed outline on how the research took take place. It specifies the methods and procedures that were used to collect and analyse data Borg *(*2007). The study employed the descriptive survey design and a correlation research design. Descriptive research involves gathering data that describe events and then organizes, tabulates, depicts, and describes the data collection Glass & Hopkins, (1984). Descriptive survey design was used since the data to be obtained on the elements and the variables was for a given time period. According to Groves (2004) descriptive technique gives accurate information of persons, events or situations. Correlation and regression methods were used to determine the association between macroeconomic factors (the independent variables) and DTMFIs financial performance (the dependent variable).

3.3 Target population

Flick (2009) defines target population as the entire group of people, events or things that the researcher intends to investigate. The target population in the study involved all the deposit-taking microfinance institutions in Kenya. Central Bank of Kenya (2015) there are 12 deposit-taking Microfinance institutions in Kenya. Only 9 microfinance institutions were targeted since three of the deposit taking were licensed during the year (2015) which is not in the study period. All The 9 deposit taking Microfinance institutions were targeted for a census in the research study since they were in existence during the period of the study. The researcher choose the deposit taking MFIs because first, they have the widest geographical coverage in the Kenya through their branch network band, secondly they offer both saving and credit services. These two facts make the deposit taking MFIs ultimately represent the other MFIs.

3.4 Research instrument

The instruments used were tabulation of parameters. Cooper and Schindler (2003) stated that through note taking, the research deduced parameters that were used in the study. It gives the researcher freedom to choose what is relevant to the study. This method was used in capturing all available information from the available publications from the central bank of Kenya and the National Bureau of statistics.

3.5 Data Collection

Secondary data was collected from published reports of the central bank of Kenya on the microfinance financial reports for the years in the study. Single variable (EBIT) data was used to measure financial performance. Earnings before interest and tax for each year data of the nine microfinance institutions was collected from their published

financial statements with the central bank of Kenya. Average inflation data was collected from the Kenya bureau of statistics periodicals. Data on exchange rate was obtained from the Central Bank of Kenya for the various years and it was a comparison of the Kenyan shilling against the USA dollar. GDP data was collected from National Bureau of Statistics periodicals. Employment rate data was collected from Kenya National Bureau of Statistics reports. National savings data was also collected from the Kenya National Bureau of Statistics Publications.

3.6 Data Analysis and presentation

According to Mugenda and Mugenda (2003) data must be cleaned, coded and properly analysed in order to obtain meaningful information. The study used both quantitative and qualitative methods to realize the relationship from the data and to strengthen the analysis emerging from the data. This model of analysis will examine the simultaneous effects of the independent variables on a dependent variable. Domestic GDP growth, exchange rates (ER) inflation (INF) national saving rate and employment rate was used as independent variable.

Data was analyzed using the Karl Pearson correlation Moment to test the association between the independent and dependent variables. Multiple regression analysis model was also used to measure the effect of changes in the macroeconomic variables on the financial performance of deposit taking MFIs with only one dependent variable (EBIT) as opposed to the three used by Hermanto &Astute (2013). Similar model was used by Krauss &Walter (2006) to measure effect of GDP on performance of MFIs
The model used for this study was:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon$$

Where: Y is the dependent variables of average EBIT of DTMFIs at, i.e. EBIT measured as revenue minus expenses.

β_0 is a constant, intercept of the equation

β_1- β_5 is the regression coefficient of the independent variables

X_1= average inflation rate

X_2= average GDP growth rate

X_3=average exchange rate of Kenyan shilling against the USA dollar.

X_4 =average national saving rate

X_5 =average employment rate.

ε is the error term normally distributed about a mean of zero. For computation purposes it is assumed to be 0.

Informed by theory and empirical review the coefficients of the regression equation above are expected to yield, β_0 coefficient which shows how the financial performance of deposit taking microfinance institution will vary holding all the independent variables constant. β_1 coefficient shows how a unit change in Inflation will change the financial performance DTMFIs holding all other factors constant. β_2 coefficient explains how a unit change in GDP will change performance holding other factors constant. β_3 explains by how much a unit change in exchange rate explains change in financial performance. β_4 coefficient shows how a unit change in national savings will cause changes in financial performance holding other factors constant. Lastly β_5 explains how a unit change in employment rate will cause a change in financial performance of DTMFIs in Kenya holding other factors constant. Other un captured factors are expected to be explained by the error term.

CHAPTER FOUR

DATA ANALYSIS AND FINDINGS OF THE STUDY

4.1 Introduction

This chapter presents the data analysis and findings of the study. Secondary data was collected from published reports of the central bank of Kenya on the microfinance financial reports for the 2009 to 2014. Single variable (EBIT) data was used to measure performance. Earnings before interest and tax for each year data for the nine microfinance institutions were collected from their published financial statements with the central bank of Kenya. Data was analyzed using a multiple regression analysis model to measure the effect of changes in the macroeconomic variables on the financial performance of deposit taking MFIs with only one dependent variable the financial performance of deposit-taking micro finance institutions. The independent variables were Domestic GDP growth, exchange rates (ER), inflation (INF), National saving rate and employment rate and employment rate.

4.2 Findings of the study

The findings of this study were obtained using inferential statistics only using SPSS software version 20.0. The inferential statistics calculated included; correlations, and regression outputs.

4.3 Correlation analysis

The study first sought to establish the relationship that prevailed between the variables used in modelling the study. In this case the Karl Pearson Moment correlation coefficient was sought for all the variables relative to each other. Of interest to the study though was the association between the dependent variable and each of the

independent variables individually. The findings in this were computed with the help of the SPSS V 20.0 software and the output is presented in the table below.

Table 4.1 Correlations

		Average inflation rate	Average GDP growth rate	Average exchange rate	Average national savings	Average employment rate.	Average)TMFIs	EBIT
Average inflation rate	Pearson Correlation	1	.698**	.623**		.814**	-.864**	
	Sig. (2-tailed)		.000	.000	.824**	.000	.000	
	N				.000		9	
Average GDP growth rate	Pearson Correlation	.698**	1	.608**		.719**	.659**	
	Sig. (2-tailed)	.000		.001	.759**	.000	.012	
	N				.000		9	
Average exchange rate	Pearson Correlation	. .623**	.608**	1		814**	0.632**	
	Sig. (2-tailed)	.001	.000		814**	.001	.000	
	N				.001		9	
Average national savings	Pearson Correlation	.824**	.759**	0.814**		1	.842**	
	Sig. (2-tailed)	.000	.012	.000	1		.000	
	N						9	
Average employme nt rate.	Pearson Correlation	.814**	.719**	0.814**		1	.852**	
	Sig. (2-tailed)	.000	.012	.000	1		.000	
	N						9	

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

Table 4.1 shows that there is a strong positive correlation between the independent variables; Average GDP growth rate (r = 0.659) average exchange rate (r = 0.632), average national savings (r = 0.842) and average employment rate (r = 0.852) and the dependent variable (average EBIT of DTMFIs). This means that there is a strong positive association between these independent variables and the dependent variable. The results revealed that the average employment had the strongest association(r = 0.852) followed by average national savings (r = 0.842). The positive correlation implies that an increase in the independent variable would lead to an increase in the dependent variable by the following factors; Average GDP growth rate (0.659), average exchange rate (0.632), average national savings (0.842) and average employment rate (0.852) and vice versa. It was however revealed that on average inflation had a negative correlation (r = -0.864). This implies that there was a negative association between inflation and the average EBIT of DTMFIs and that an increase in inflation would lead to a decrease in average EBIT of DTMFIs.

4.4 Regression outputs

In order to determine the relationship that exists between the dependent variable and the independent variables, a multiple regression analysis was conducted. In this case the computer software; statistical package for social sciences (SPSS V 20.0), was used to code, enter, and calculate measurements of the multiple regressions. Multiple regression analysis was used because it measures the relationship between independent and dependent variables by generating an equation which can be used to predict the dependent variable for some given independent variables. The model summary from the regression output was shown below in table 4.2.

Table 4.2 Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.741[a]	.682	.715	.1131

Predictors: (Constant), inflation, Domestic GDP growth, exchange rates, national savings rate and average employment rate.

The model summary shows that the adjusted R Squares was 0.715. This implies that the independent variables (inflation rate, average Domestic GDP growth rate, exchange rates, national saving rate and employment rate) explained the variations on financial performance of deposit-taking micro finance institutions by 71.5%. The remaining 28.5% would be explained by other variables not included in the study.

The researcher further presented that the multiple regression model was to determine the form of relationship between macroeconomic factors such as Domestic GDP growth, exchange rates, inflation, national saving rate, employment rate and the financial performance of deposit-taking micro finance institutions using SPSS software version 20.0 of IBM. The regression analysis model was used for all the years from 2009 to 2014. The coefficient results for the regression equation were presented in Table 4.3

Table 4.3 Coefficients results for year 2009 to 2014

Model	Un standardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.553	0.032		20.140	.000
Average inflation rate (X_1)	-0.271	.0124	-.652	-2.22	.002
Average GDP growth rate (X_2)	0.331	.0632	.342	1.444	.001
Average exchange rate (X_3)	0.326	.0234	.784	3.126	.000
Average national saving rate (X_4)	0.386	.0325	-.052	341.83	.003
Average employment rate (X_5)	0.411	0.0351	0.552	8.1211	0.001

From Table 4.3, the following regression equation was established for the all the years 2009 to 2014 combined:-

$$Y = 1.553 - 0.271X_1 + 0.331X_2 + 0.326 X_3 + 0.386 X_4 + 0.411 X_5$$

From the regression equation above it follows that holding all the independent variables constant, financial performance will increase by 1.553 units. Inflation rate was found to have a negative effect on financial performance of deposit taking microfinance institutions in Kenya. All the other independent factors were found to have a positive impact on the financial performance of deposit taking microfinance institutions in Kenya. Employment rate was found to have the strongest relationship with a factor of 0.411.

4.4.1 Inflation and the financial performance

From the findings of the study it was found that there was a negative contribution of inflation to the regression model with a factor of -0.271. This implies that a unit increase in inflation would cause a decrease in financial performance of deposit-taking micro finance institutions by a factor of - 0.271 while a decrease in inflation by one unit would course an increase in financial performance of deposit-taking micro finance institutions by a factor of 0.271. These results agree with Huybens and Smith (1999) who argued that inflation has negative effect on the financial performance of microfinance institutions. According to the study on the impact of inflation on financial sector performance in eleven countries, Huybens and Smith (1999), argue that an increase in the rate of inflation could have at first negative consequences on financial sector performance through credit market frictions before affecting economic growth. In fact, market frictions entail the rationing of credit which reduces intermediary activity and capital formation. The reduction of capital investment impacts negatively both on long term economic growth and equity market activity.

4.4.2 Domestic GDP growth rate and financial performance

The regression model also revealed that a unit increase in gross Domestic GDP growth rate would cause an increase in growth of financial performance of deposit-taking micro finance institutions by a factor of 0.331 while a decrease in a unit of gross Domestic GDP growth rate would cause a decrease in growth of financial performance of deposit-taking micro finance institutions by a factor of 0.331 holding other factors constant. These results are in line with Robinson, (2001) argument that the goods that micro entrepreneurs sell generally see an increased demand when domestic economic conditions deteriorate, as consumers shift away from more expensive imported goods. She also notes that, fundamentally, micro entrepreneurs

have stronger repayment ethics because of a desire to prove themselves or because they do not have access to other sources of credit. In addition to micro entrepreneur characteristics, Maina, (2011) found that institutions who lend primarily to women offered loans with high rates and higher repayment amounts. They suggested that was because women are believed to be less risk averse. Hence, MFIs, which traditionally have focused on lending to women, may be seen to reap financial benefits from their clients' risk profiles.

4.4.3 Exchange rate and financial performance

It was also established that there was a significant relationship between exchange rate and financial performance of deposit-taking micro finance institutions and that a unit increase in exchange rates would cause an increase in financial performance of deposit-taking micro finance institutions by a factor of 0.326 while a decrease in exchange rates would cause an decrease in financial performance of deposit-taking micro finance institutions by a factor of 0.326.These results agrees with Muriithi (2011) who did a study whose objective was to establish the relationship between foreign exchange rate and market performance for manufacturing companies. The study used a descriptive research design.

His study showed that exchange rates had a positive influence on market performance. In addition, Mongeri, (2011) did a study on the impact of foreign exchange rates and foreign exchange reserves on the performance of NSE share index whose objective was to determine the impact of foreign exchange rates and foreign exchange reserves on the performance of NSE index. The study established that the foreign exchange rates positively influenced the performance of NSE index.

4.4.4 National savings rate and financial performance

The study also established that there was a significant relationship between national savings rate and financial performance of deposit-taking micro finance institutions. This means a unit increase in national savings rate would cause an increase in financial performance of deposit-taking micro finance institutions by a factor of 0.386 and a unit decrease in national savings rate would cause a decrease in financial performance of deposit-taking micro finance institutions by a factor of 0.386. These results agrees with Waithama (2008) who analyzed the causal relationship between the rate of saving and economic growth for Kenya for the period 1960 – 2005 and examines the impulse response of a shock in savings and the effects of such a shock on GDP and investment. The results did not find causality between GDS and GDP, GDP per capita is found to Granger cause private savings. On the other hand, there appeared to be a double causality between GDP and investment. An increase in savings will cause an increase in investment and vice versa.

4.4.5 Employment rate and financial performance

The study also established that there was a significant relationship between employment rate and financial performance of deposit-taking micro finance institutions. The study established that a unit increase in employment rate would cause an increase in financial performance of deposit-taking micro finance institutions by a factor of 0.411 while a unit decrease in employment rate would cause a decrease in financial performance of deposit-taking micro finance institutions by a factor of 0.411. These results agree with Nickell (2005) who used annual data and estimated a fixed effects model with lagged dependent variable. He found a significantly positive influence of the unemployment benefit replacement rate, benefit duration and the tax

variable density on unemployment, a significantly negative effect of wage coordination, but no significant influence of employment protection or union density.

4.5 Analysis of Variance (ANOVA)

To test the fitness of the regression model, the researcher used the model Table as shown in Table 4.4.

Table 4.4 ANOVA

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	2.332	1	0.221	11.774	0.000
Within Groups	1.423	8	0.016		
Total	3.755	9			

Dependent Variable: Financial performance of deposit-taking micro finance institutions

Source, Author (2016)

The study used ANOVA to establish the significance of the regression model from which an f-significance value of $p < 0.001$ was established. This shows that the regression model has a less than 0.001 likelihood (probability) of giving a wrong prediction. Hence the regression model has a confidence level of 95%.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a summary of the findings; the conclusion and the recommendations of the study and suggestions for further research.

5.2 Summary of the findings

Data was analyzed using a multiple regression analysis model to measure the effect of changes in the macroeconomic variables on the financial performance of deposit taking MFIs with only one dependent variable the financial performance of deposit-taking micro finance institutions. Secondary data on Domestic GDP growth, Exchange rates (ER), inflation (INF), National Saving Rate and employment rate and employment rate was collected from published reports of the central bank of Kenya on the microfinance financial reports for the years being studied.

From the findings of this study it was observed that, inflation rate had a negative impact on financial performance of deposit-taking micro finance institutions in all the years studied. The study also established that there was a positive relationship between Gross domestic product growth rate and financial performance of deposit-taking micro finance institutions. It was also established that there was a positive relationship between exchange rates and financial performance of deposit-taking micro finance institutions. The study also established that there was a positive relationship between national savings growth rate and financial performance of deposit-taking micro finance institutions. The study finally established that there was

a positive relationship between employment rate and financial performance of deposit-taking micro finance institutions.

5.3 Conclusions from the study

The study aimed at finding the impact of macroeconomic factors on financial performance of deposit taking microfinance institutions in Kenya. This research was triggered by the contradictory results given by different researchers on the impact of macroeconomic variables on financial performance of deposit taking microfinance institutions in Kenya.

The study tried to answer the research questions: first what are the effects of inflation on the financial performance of deposit-taking microfinance institutions in Kenya? Based on the findings of the study there was a negative relationship between inflation rate and financial performance of deposit-taking micro finance institutions in all the years studied. This means that an increase in inflation coursed a decrease in financial performance of deposit-taking micro finance institutions in all the years in study. Second, how does Gross Domestic Product growth rate affect the financial performance of deposit-taking microfinance institutions Kenya? It was found that there was a positive relationship between gross domestic product and financial performance of deposit-taking micro finance institutions in all the years studied. This means that an increase in gross domestic product coursed an increase in financial performance of deposit-taking micro finance institutions in all the years studied.

Thirdly, what ways does exchange rate affect the financial performance of deposit-taking microfinance institutions in Kenya? The findings concluded that there was a positive relationship between gross exchange rate and financial performance of

deposit-taking micro finance institutions in all the years studied. This means that an increase in exchange rate coursed an increase in financial performance of deposit-taking micro finance institutions in all the years studied. Fourth, how does national savings rate affect the financial performance of deposit taking micro finance institutions in Kenya? The results revealed that there was a positive relationship between national savings rate and financial performance of deposit-taking micro finance institutions in all the years studied. This means that an increase in national savings coursed an increase in financial performance of deposit-taking micro finance institutions in all the years studied.

Lastly, what are the effects of employment on the financial performance of deposit taking micro finance institutions in Kenya? The study found out that there was a positive relationship between employment rate and financial performance of deposit-taking micro finance institutions in all the years studied. This means that an increase in employment rate coursed an increase in financial performance of deposit-taking micro finance institutions in all the years studied.

Independent variables (inflation rate, average Domestic GDP growth rate, exchange rates, national saving rate and employment rate) explained the variations on financial performance of deposit-taking micro finance institutions by more than seventy percent as shown by the adjusted R squares. The remaining percentage would be explained by other variables not included in the study. Also the dependent variables (EBIT) used in the study were found to be a good fit in explaining the financial performance among Deposit Taking microfinance institutions in Kenya. In conclusion macroeconomic

variables have an influence on financial performance of deposit taking microfinance institutions in Kenya.

5.4 Recommendations to policy

The study recommends that the Government should closely monitor and prudently manage the macroeconomic variable in order to spur greater financial performance as they explain a higher variation in financial performance of the deposit taking microfinance institutions in Kenya as shown by the adjusted R squares. The government should also control Inflation since it has an adverse impact on the financial performance of deposit taking microfinance institutions in Kenya. Lastly the government should strive to improve the country's GDP, National savings and employment rate as they positively affect the financial performance of deposit taking microfinance institutions in Kenya.

5.5 Suggestions for further research

It was found that Independent variables (inflation rate, average Domestic GDP growth rate, exchange rates, national saving rate and employment rate) explained the variations on financial performance of deposit-taking micro finance institutions by a certain percentage, meaning that there are other factors that explain variation in financial performance other than macroeconomic factors. Further research should be conducted to explain the other factors that influence financial performance of deposit taking microfinance institutions in Kenya not included in this study.

Only one dependent variable (EBIT) was used to measure financial performance of deposit taking MFIs in Kenya, further studies could be conducted using other dependent variables like ROA as a measure of financial performance and more macroeconomic factors since they were not fully exhausted. Further studies should be

carried to include firm specific variables such as management investment decisions that also affect EBIT.

Lastly, this study only used the deposit taking MFIs in Kenya. However in Kenya, there are more than twenty MFIs which are not authorized to take deposits but only give credit. Further research should be undertaken in this area to determine whether the non-deposit taking MFIs are affected by the macroeconomic factors in the same way as deposit taking MFIs. Also further research should be undertaken to determine how macroeconomic factors would affect MFIs EBIT when using both deposit taking and non-deposit taking MFIs.

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Appendix I: Introduction Letter

Roselyne Mwende Nzuve

South Eastern Kenya University

P.O BOX 170

Kitui

10th December 2015

Dear Sir/ Madam

RE: REQUEST FOR DATA

I am a Master of Business Administration student in the School of Business and Economics carrying out research on *Impact of macroeconomic factors on the financial performance of deposit taking microfinance institutions in Kenya*. The purpose of this letter is therefore to kindly request your voluntary participation in this study by providing me with publications made by your entity containing information on financial reports. The information gathered shall be treated confidentially and shall be used for this research only.

Kindly sign this form if you agree to participate in this study.

Yours sincerely,

Roselyne Mwende Nzuve

Appendix II: University Introduction Letter

SOUTH EASTERN KENYA UNIVERSITY
OFFICE OF THE DIRECTOR
BOARD OF POST GRADUATE STUDIES

P.O. BOX 170-90200
KITUI, KENYA
Email: info@seku.ac.ke

TEL: 020-2413859 (KITUI)
020-2531395 (NAIROBI)
E-mail: directorbps@seku.ac.ke

Our Ref: D61/KIT/20489/2014

Date: Thursday, February 04, 2016

Nzuve Roselyne Mwende
Reg: D61/KIT/20489/2014
Master of Business Administration
C/O Dean, School of Business and Economics

Dear Nzuve,

RE: PERMISSION TO PROCEED FOR DATA COLLECTION

This is to acknowledge receipt of your Master in Business Administration Proposal document entitled, *"Impact of Macroeconomic factors on financial performance of deposit-taking Micro finance institutions in Kenya"*.

Following a successful presentation of your Master Proposal, the School of Business and Economics in conjunction with the Directorate, Board of Post graduate Studies (BPS) have approved that you proceed on and carry out your research data collection in accordance with your approved proposal.

During your research work, you will be closely supervised by Dr. Jared Ariemba and Ms. Anne Christine Kabui. You should ensure that you liaise with your supervisors at all times. In addition, you are required to fill in a Progress Report *(SEKU/ARSA/BPS/F-02)* which can be downloaded from the University Website.

The Board of Postgraduate Studies wishes you well and a successful research data collection as a critical stage in your Master of Business administration.

For Kabui

Prof. Cornelius Wanjala
Director, Board of Postgraduate Studies

Copy to: Deputy Vice Chancellor, Academic, Research and Students Affairs
            Dean, School of Business and Economics
            Chairman, Department of Business & Entrepreneurship
            Dr. Jared Ariemba

            Ms. Anne Christine Kabui
            Director, Kitui Campus
            BPS Office- To file

ARID TO GREEN .... TRANSFORMING LIVES

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Appendix III: Data collection instrument

Part one: Financial performance

   a) **Earnings before interest and tax**

EBIT	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005
Faulu Microfinance Bank Ltd										
Kenya Women Microfinance Bank Ltd										
SMEP microfinance bank										
Remu Microfinance Bank Ltd										
Rafiki Microfinance Bank Ltd										
Uwezo Microfinance Bank Ltd										
Century Microfinance Bank Ltd										
Sumac Microfinance Bank Ltd										
U&I Microfinance Bank Ltd										

Part two: Macroeconomic Factors

	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005
Average annual Inflation										
Annual Gross Domestic Product										
Annual Exchange rate of KSHs vs USA Dollar										
Annual National saving										
Annual Employment rate										

Appendix IV: Deposit taking MFIs in Kenya

Retrieved December 2015*https://www.**centralbank**.go.ke/*

Faulu Microfinance Bank Ltd
Postal Address: P. O. Box 60240 – 00200, Nairobi
Telephone: +254-20- 3877290 -3/7, 38721883/4
Fax: +254-20-3867504, 3872183/4; 3867503, 0711 074 074, 0708 111 000
Email: info@faulukenya.com, customercare@faulukenya.com
Website: www.faulukenya.com
Physical Address: Faulu Kenya House, Ngong Lane -Off Ngong Road
Date Licenced:21st May 2009
Branches: 32

Kenya Women Microfinance Bank Ltd
Postal Address: P. O. Box 4179-00506, Nairobi
Telephone: +254-20- 2470272-5, 2715334/5, 2755340/42
Pilot Line: 070 - 3067000
Email: info@kwftdtm.com
Website: www.kwftdtm.com
Physical Address: Akira House, Kiambere Road, Upper Hill,
Date Licenced:31st March 2010
Branches: 29

SMEP Microfinance Bank Ltd
Postal Address: P. O. Box 64063-00620 Nairobi
Telephone: 020-3572799/2055761, 2673327/8, 0711606900
Email: info@smep.co.ke info@smep.co.keinfo@smep.co.ke
Website: www.smep.co.ke
Physical Address: SMEP Building - Kirichwa Road, Off Argwings Kodhek Road
Date Licensed:14th December 2010
Branches: 7

Remu Microfinance Bank Ltd
Postal Address: P. O. Box 20833-00100 Nairobi
Telephone: 2214483/2215384/ 2215387/8/9, 0733-554555
Email: info@remultd.co.keinfo@remultd.co.keinfo@remultd.co.ke
Physical Address: Finance House, 14th Floor, Loita Street
Date Licensed: 31st December 2010
Branches: 3

Rafiki Microfinance Bank Ltd
Postal Address: 12755-00400 Nairobi
Telephone: +254-020-2166401/0730 170 000/0730 170 500
Email: info@rafiki.co.ke
Website: www.rafiki.co.ke
Physical Address: : Rafiki House, Biashara Street
Date Licensed:14th June 2011
Branches: 17

Uwezo Microfinance Bank Ltd
Postal Address: 1654-00100 Nairobi
Telephone: 2212919, 0703591302 / 9
Email: info@uwezodtm.com
Website: www.uwezodtm.com
Physical Address: Rehani House, 11th floor, Koinange Street
Date Licensed: 08 November 2010
Branches: 2

Century Microfinance Bank Ltd
Postal Address: P. O. Box 38319 – 00623, Nairobi
Telephone: +254-20-2664282, 6768326, 0722168721, 0756305132
Email: info@century.co.ke
Physical Address: KK Plaza 1st Floor, New Pumwani Road, Gikomba
Date Licensed: 17th September 2012
Branches: 1

Sumac Microfinance Bank Ltd
Postal Address: P. O. Box 11687-00100, Nairobi
Telephone: 020-2212587, 2210440, 2249047, 0738637245, 0725223499
Fax: (254) 2210430
Email: info@sumacdtm.co.ke
Website: www.sumacdtm.co.ke
Physical Address: Consolidated Bank House 2nd Floor, Koinange Street
Date Licensed: 29th October 2012
Branches: 3

U&I Microfinance Bank Ltd
Postal Address: P.O. Box 15825 – 00100, Nairobi
Telephone: (254) 020 2367288, 0713 112 791
Fax: (254) 2210430
Email: info@uni-microfinance.co.ke
Website: http://uni-microfinance.co.ke/uni-microfinance/
Physical Address: Asili Complex Building 1st Floor, River Road
Date Licensed: 8th April 2013.