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# Effect of Risk Management Strategies on Profitability of Microfinance Institutions in Kenya: A Case Study of Faulu Kenya Nakuru County

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*Abstract:*
*Since the 1990s, poverty reduction remains an agenda at both national and international development levels. Microfinance initiative has caught the attention of many Aid donors, NGOs and Governments as an effective tool for poverty reduction. In the Kenyan context, this same initiative and hope has been adopted. The popular assumption is that it enables poor households to access credit and mount small businesses which would enable them improve their incomes and eventually overcome poverty. This study sought to find out the effects of risk management strategies on profitability of Micro Finance Institutions. The research methodology employed a survey design where collection of primary data was done using questionnaires. A census of 42 respondents consisting of 7 managers and 35 credit officers was used in the study. Data was analyzed using descriptive and inferential statistics with the aid of SPSS version 21.0. The study findings indicated that regulatory risks, operational risks, interest rate risks and credit risks ($\beta_1 = 0.007$, p-value= 0.011), ($\beta_2 = 0.228$, p-value = 0.000), ($\beta_3 = 0.031$, p-value = 0.009 and ($\beta_4 = 0.048$, p value=0.001) had a significant effect on profitability of MFIs. The study recommends that MFIs should continue using Risk Management Strategies as a tool for increasing profitability.*

*Keywords: Risk Management Strategies, Microfinance Institutions, Profitability, Kenya.*

## 1. Introduction

### 1.1. Background of the Study

Small scale entrepreneurs who include agriculture and rural businesses have contributed greatly to the growth of Kenyan's economy. The sector contributes to the national objective of creating employment opportunities, generating income and providing a source of livelihood for the majority of low income households in the country accounting for 12-14% of GDP (Republic of Kenya, 1999, 2002, 2005). Kenya's development challenge therefore largely remains that of identifying sustainable ways of enabling the main sectors (which include agriculture and rural business) of the rural economy to improve its performance.

The government recognizes that the challenge of sustainable development in Kenya is eradication of poverty and the achievement of sustained broad based economic growth (Sessional Paper no.2 of 1992). It is for this reason that the government in the 1990's through the Central Bank of Kenya (CBK) relaxed the entry requirements of the non-banking financial institutions to promote locally owned financial institutions. This was aimed at ensuring accessibility of credit facilities to Small and Medium entrepreneurs. Later, the regulatory differences led to the mushrooming of the non-banking financial institutions and this forced the government to harmonize capital requirements and interrelations for both banks and the non-bank financial institutions. This led to the decline in the number of the non-bank financial institutions that were converted to commercial banks (Atieno,2001). However; commercial banks have their restrictions of credit to specific activities, making it difficult to compensate for losses through other forms of enterprises, and their policies have not permitted the majority of the SMEs to access credit facilities.

A survey conducted by Finance Access found out that, Kenya's financial sector is probably the most advanced in East Africa, but to date, only an estimated 55% to 60% of the population has access to financial services (Murduch, 2007). Unsurprisingly, the Finance Access Survey found that the key issue for access to financial services is income, driven by three determinants which are: being able to afford the minimum balance and costs for a bank account, being able to afford bus fare to the bank, and finally having sufficient 'excess' cash to justify having a bank account. The commercial banks have used these criteria to categorize their customer as either being creditworthy or not creditworthy. The not creditworthy are risky to lend to and accessing credit facilities means exposing themselves to more risks. On the other hand, the Central Bank of Kenya (CBK) in its policies and guidelines (CBK Prudential Guidelines Basel II) advises financial institutions on the common risks that they are exposed to. These risks include: strategic risks, credit risk, liquidity, currency or foreign exchange risk, interest rate risk, operational risk, regulatory risks and reputation risks.

According to the CBK, it is apparent that every firm is subject to operational risks in any one of its operations that may arise from inadequate or failed internal processes, human behavior, external or internal disasters or from the systems. The financial institutions should realize that risks are unavoidable part in their operations and the main role should be to mitigate and manage them. They should be able to minimize the probability of risks occurring and if they occur how their effects can be minimized. If the risks are not managed well, MFIs are likely to fail to meet their social financial objectives. Risks not well managed leads to financial losses hence resulting to capital erosion (Central Bank of Kenya, 2009).

In Nakuru County, there are a number of MFIs which include; Kenya Women Finance Trust (KWFT), Women Development Corporation (WDC), Faulu Kenya among others. These MFIs are providing services to the people engaged mainly in agricultural activities and small scale businesses. Most of the SMEs are accessing credit facilities from these institutions, which in turn have boosted growth of small scale businesses in the region. This study therefore sought to establish the relationship between the risk management strategies employed by the Microfinance Institutions (MFIs) and profitability of these institutions.

## 1.2. Statement of Research Problem
Risk is an integral part of financial services. When financial institutions issue loans, there is a risk of borrower default. When banks collect deposits and on-lend them to other clients (that is, conduct financial intermediation), they put clients' savings at risk. Any institution that conducts cash transactions or makes investments risks the loss of those funds. Financial institutions should neither avoid risk nor ignore risk. Like all financial institutions, microfinance institutions (MFIs) face risks that they must manage efficiently, effectively and economically so as to be successful. When the borrowers fail to pay, they may disappear with their guarantor(s) leaving the loan burden to immediate relatives who may be aged or have a lot of responsibilities thereby unable to payback. This study therefore sought to examine the effect of various risk strategies employed by the micro finance institutions on profitability of these institutions.

## 1.3. Objectives of the Study
The main objective of the study was to establish the effect of risk management strategies on profitability of Microfinance institutions.

## 1.4 Specific Objectives
i) To determine how regulatory risk affects profitability of microfinance Institutions in Nakuru County.
ii) To examine the effects of operational risk on profitability of Microfinance Institutions in Nakuru County.
iii) To evaluate how interest rate risk affects profitability of Microfinance Institutions in Nakuru County.
iv) To assess the effects of credit risk on profitability of microfinance Institutions in Nakuru County.

## 1.5. Research Hypothesis
- $H_{01}$: There is no significant effect of regulatory risk management on profitability of Microfinance Institutions in Nakuru County.
- $H_{02}$: There is no significant effect of operational risk management on profitability of Microfinance Institutions in Nakuru County.
- $H_{03}$: Interest rate risk management has no significant effect on profitability of Microfinance Institutions in Nakuru County.
- $H_{04}$: There is no significant effect of Credit risk management on profitability of Microfinance Institutions in Nakuru County.

## 2. Literature Review

### 2.1.1. Regulatory Risk
The regulation and supervision of MFIs should be an integral part of a strategy to develop a market based financial system. Microfinance is not limited to lending and borrowing, but also includes other financial services such as savings, insurance and transfer facilities. Savings facilities are a particularly important question when considering prudential regulation of MFIs because the prospective microfinance target group is usually many times larger in deposit business than in lending (Buckley, 2006a).

### 2.1.2. Operational Risk
Operational risks are the vulnerabilities that an MFI faces in its daily operations, including portfolio quality, fraud risk and theft. The investment portfolio must balance credit risks (for investments), income goals and timing to meet medium to long term liquidity needs. An aggressive approach to portfolio management maximizes investment income by investing in higher risk securities. A more conservative approach emphasizes safer investments and lower returns (Juan, 2000). Operational risk arises from human or computer error within daily product delivery and services. It transcends all divisions and products of a financial institution. This risk includes the potential that inadequate technology and information systems, operational problems, insufficient human resources, or breaches of integrity (i.e. fraud) will result in unexpected losses.
This risk is a function of internal controls, information systems, employee integrity, and operating processes (Buckley, 2000).

### 2.1.3. Interest Rate Risk
Interest rate risk arises when assets and liabilities are mismatched, in terms of interest rates and terms. Interest rate risk is particularly problematic for MFIs operating in high inflationary environments. If inflation rises, the interest rate on loans may not be sufficient to

offset the effects of inflation (Anita, 2000). Interest rate risk arises from the possibility of a change in the value of assets and liabilities in response to changes in market interest rates. Also, known as asset and liability management risk, interest rate risk is a critical treasury function, in which financial institutions match the maturity schedules and risk profiles of their funding sources (liabilities) to the terms of the loans they are funding (assets) (Chan, 2007). In MFIs, the greatest interest rate risk occurs when the cost of funds goes up faster than the institution can or is willing to adjust its lending rates. The cost of funds can sometimes exceed the interest earned on loans and investments, resulting in a loss to the MFI. Interest rate changes can also affect fee income, since most fee income is associated with loan products that are interest rate sensitive. Interest rate risk management is most important to MFIs that make longer-term loans and rely on capital markets for a large percentage of their funds. In most environments, the interest rates paid to savers tend to move more slowly (Kwame, 2007).

2.1.4. Credit Risk
Credit risk, the most common and often the most serious vulnerability in a microfinance Institution, is the deterioration in loan portfolio quality that results in loan losses and high delinquency management costs. Credit risk relates to client failure to meet the terms of a loan contract (Ledgewood, 2009). The first great challenge in microfinance is to minimize the credit risk associated with providing unsecured loans. This is because they advance loans to its clients basing on their savings and their property such furniture and domestic animals (Nelson, 2004).
One microloan does not pose a significant credit risk because it is such a small percentage of the total portfolio. Since most microloans are unsecured, however, delinquencies can quickly spread from a handful of loans to a significant portion of the portfolio. This contagious effect is exacerbated by the fact that microfinance portfolios often have a high concentration in certain business sectors. Consequently, a large number of clients may be exposed to the same external threat, like a crackdown on street vending or a livestock disease. These factors create volatility in microloan portfolio quality, heightening the importance of controlling credit risk (Churchill, 2007).

2.1.5. Profitability
The capital asset pricing model specifies the relationship between risk and required rates of return on asset when they are held in well-diversified portfolios. According to Brigham (2008) examines the assumptions behind capital Assets Pricing Model (CAPM) which are: all investors focus on a single holding period and they seek to maximize the expected utility of their terminal wealth by choosing among alternatives portfolios on the basis of each portfolio expected return and standard deviation, all investors can borrow or lend an unlimited amount at a given risk-free rate and there are no restrictions on short sales of any assets; that is investors have homogenous expectations, all the assets are perfectly divisible and perfectly liquid, there are no transaction cost and taxes and finally the quantities of all assets are given and fixed. To boost profitability, MFIs may purposely "mismatch" assets and liabilities in anticipation of changes in interest rates. If the asset liability managers think interest rates will fall in the near future, they may decide to make more long-term loans at existing fixed rates, and shorten the term of the MFI's liabilities (Pandey, 2006).

*2.2. Empirical Review*
Various researches on Microfinance Institutions have been undertaken. A study carried out by (Adam & Von Pische, 2002), on the relevance of microfinance as a poverty reducing policy. He argued that debt is not an effective tool for helping most poor people to enhance their economic condition be they operators of small farms or micro entrepreneurs. The main argument of Adam and Von Pische (2002) is that there are other more important constraints that face small agricultural households and they include product prices, land tenure, technology, market access and risk. Also in support of the same view is Gulli (1998) who argues that credit is not always the main benefit but also there are positive spillover effects to the rest of the community.
In his study Khandker (2006) used a panel household survey from Bangladesh and observed that access to microfinance contributes to poverty reduction, especially for female participants, and to the overall poverty reduction at the village level (Khandker 2006).
In her thesis, Jamieson evaluates a variety of the social performance indices that have been proposed, ultimately recommending a series of low-cost assessment tools — known as poverty scorecards — that measure a small number of observable and verifiable indicators of poverty. Jamieson argues that these inexpensive and easily replicable tools have the most potential for quick and effective deployment to microfinance institutions around the world. She proposes that these tools could be used to assess a borrower's status upon joining an organization and annually thereafter to assess change in the borrower's living situation (Jamiesson, 2008).
A study by Murumba (2011) on evaluation of the effect of risks on Microfinance financial sustainability found out that MFIs are exposed to various risks. According to the study, credit risk is the very frequent one. He recommended that MFIs should integrate effective risk management into their culture and operations. They should systematically analyze their preparedness for potential events through building in sufficient caution for unexpected effect.
Warui, (2007), investigated on external factors on MFIs and self-help groups to establish which of these factors significantly affects loan delinquency performance in MFIs in Kenya. The study found evidence that there exist a negative and significant relationship between loan delinquency and MFIs performance. In addition, self-help groups and external factors significantly affect loan delinquency performance among MFIs in Kenya. The study recommends that MFIs portfolios management strategies to focus more on the internal causes of delinquency which they have more control over and seek practical achievable solutions redress delinquency problems.
Research by Makworo, (2012) on the frequent risks that affect general performance of MFIs found out that strategic risk, credit risk, liquidity and management risk affect profitability of Micro Finance Institutions. These risks are both internal and external. He

recommended that MFIs can anticipate for these risks and prepare for their impact although they cannot control external risks. Wesonga, (2010) researched on the effect of internal and external risk on the performance of commercial banks. He found out that risk affects daily operation of commercial banks and therefore affect the return on assets. Wesonga recommended that commercial banks should manage risk efficiently and effectively so that they can increase return on assets.

Mwangi (2013) did a study on the effect of risk management practices on the financial performance of commercial banks in Kenya. The objectives of this study were to analyze the risk management practices undertaken by Commercial Banks in Kenya and to determine and assess the effect of these risk management practices on their financial performance. From the research conducted it is evident that risk management and the related practices are considered significantly important to the operations and financial performance of these commercial banking institutions. This has been influenced to a large extent by guidelines put forward by the Central Bank of Kenya and also the nature of the banking industry. In most cases banks, had adopted a proactive and enterprise wide approach to their risk management practices by having a risk department with a manager, and had a documented risk management policy which was fairly well communicated throughout all levels of the organization from the Board to Staff. The study also found that some risk management practices do have more significant effect on financial than others. For example, the existence of a risk management policy and the integration of risk management in setting of organizational objectives were considered to be the key risk management practices that had a direct effect on financial performance.

A study by Kombo, (2000) on whether MFIs are exposed to risks study found out that like any other financial institution, MFIs are exposed to various risks. According to the study, credit risk, regulatory risk, and operational risks do affect MFIs. Similarly, liquidity, market and management risk are frequent but legal and compliance, reputation and subsidy dependency are not frequent risks. These risks are both internal and external. She recommended that while external risk is out of MFIs direct control, the Microfinance Institutions can still anticipate them and prepare for their impact.

Daniel (2006) did a study on the preventive and detective controls Microfinance Institutions employ and their effect on financial performance. He found out that preventive and detective controls significantly affect financial performance of microfinance institutions and therefore an appropriate balance between preventive and detective controls should be arrived at. He further explained preventive controls as those controls taken to avoid problems before they occur, while detective controls involve identifying undesirable outcomes before they do happen and that they are easier to implement. He gave an example that it is easier to do monthly bank reconciliation than to prevent employees from pocketing repayments.

## 3. Research Methodology

### 3.1. Research Design
According to Kothari (2006), a good research design which provides a quick, efficient and accurate means of accessing information about the population should be preferred. In this case, the study used a survey design to evaluate the effects of risk management strategies on profitability of microfinance institutions. The design was selected for the reason that it uses standardized questions, which make measurement more precise by enforcing uniformity and ensuring replication success.

### 3.2. Target Population and Sampling Design
The research targeted all the forty-five credit officers and the seven managers of the seven branches of Faulu Kenya in Nakuru County. The researcher stratified the target population into 2 strata of managers and credit officers. Since there were forty-five credit officers and seven managers, the researcher applied a census on the population.

### 3.3. Data Collection Instruments and Procedures
Primary data was collected through self-administered questionnaires to seek for a non-biased response from the respondents and ensured that results were favorable to the objective of the study. The self-administered questionnaires were considered the best in collection of primary data because they provide an avenue for the researchers to ask probing questions, they are fast, cheap and can be self-administered (Mugenda, 2003). The key variables under which data was collected was regulatory risk, operational risk, interest rate risk and credit risk in relation to the dependent variable the profitability of Microfinance Institutions.

### 3.4. Validity and Reliability of Research Instrument
Validity is the degree to which data in a research is accurate and credible while reliability is the degree to which an instrument will produce similar results at different periods (Gray, 2004). The researcher used Cronbach's alpha since it is a coefficient of internal consistency commonly used as an estimate of the reliability. The Cronbach's coefficient alphas were obtained from the SPSS to determine the internal consistency of the questionnaire in measuring efficiency in operating risk, regulatory risk, interest rate risk, credit risk and profitability. The obtained Cronbach's value was 0.961 implying it was above the recommended value by Gliem (2003) and therefore suitable for administration.

## 4. Results, Interpretations and Discussions

### 4.1. Data Analysis
Data was analyzed by descriptive and inferential statistics using SPSS version 21. Descriptive statistics involved the use of frequencies and percentages. Pearson's correlation was used to show the relationship between risk management strategies while

regression analysis was used to determine to what degree the independent variables (risk management strategies) explain the change in profitability of Microfinance Institutions as well as in testing the hypotheses.

### 4.2. Results

The study targeted all forty-five credit officers of Faulu Kenya in Nakuru County but the actual number that participated in the study was 35, giving a response rate of 77.78%. The study also targeted all the seven managers of Faulu Kenya in Nakuru County and all of them filled and returned the questionnaires giving a response rate of 100%.

### 4.2.1. Correlation and Regression Analysis

Correlation and Linear regression analysis results are presented in this section to evaluate the relationship between the dependent variables and independent variable.

The correlation results in Table 1 shows a significant positive association between regulatory risks (0.566), operational risk (0.774), interest rate risk (0.587), and credit risk (0.435) and profitability. Results also shows a positive relationship between operational risk and regulatory risk (0.678), operational risk and interest rate risk (0.694), operational risk and credit risk (0.488), Credit risk and interest rate risk (0.455) and finally credit risk and regulatory risk (0.580). This positive relationship between the independent variables implies that the variables are inter-dependent and their efficient management has a significant effect on the general performance of Microfinance Institutions in Nakuru County. It also implies that the four independent variables depend on each other in the operation of Microfinance Institutions. The general implication is that each of the risk management strategies has a significant effect on the other; hence, the need to incorporate the four risk management strategies in the Microfinance Institutions. From the correlation results it was found out that Operational risk exhibited the strongest association with profitability followed by interest rate risk then regulatory risk and finally credit risk.

| | | Regulatory | Operations | Interest | Credit | Profit |
|---|---|---|---|---|---|---|
| Regulatory | Pearson Correlation | 1 | | | | |
| | P-value | .000 | | | | |
| | | | | | | |
| Operations | Pearson Correlation | .678** | 1 | | | |
| | P-value | .000 | | | | |
| | | | | | | |
| Interest | Pearson Correlation | .662** | .694** | 1 | | |
| | P-value | .000 | .000 | | | |
| | | | | | | |
| Credit | Pearson Correlation | .580** | .488** | .455** | 1 | |
| | P-value | .000 | .001 | .002 | | |
| | | | | | | |
| Profit | Pearson Correlation | .566** | .774** | .587** | .435** | 1 |
| | P-value | .000 | .000 | .000 | .004 | |
| | | | | | | |
| **. Correlation is significant at the 0.01 level (2-tailed). | | | | | | |

*Table 1: Correlation Coefficients*
*Source: Research data, 2016*

Regression Model summary in Table 2 shows that the value of adjusted $R^2$=0.564. This implies that combined effect of the independent variables explains 56.4% of the variation in profitability of MFIs in Nakuru County and that 43.6% of the profitability could be due to other factors not mentioned in this research. Comparison of the value of $R^2$ and adjusted $R^2$ gives a difference of 0.043. This affirms that the validity of the model is very good since its shrinkage is less than the 0.5 threshold suggested by (Field, 2011).

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .779[a] | .607 | .564 | .46576 |
| a. Predictors: (Constant), Credit, Interest, Operations, Regulatory | | | | |

*Table 2: Regression Analysis Model Summary*

Results from Table 3 shows that Operational risk had the greatest effect on profitability of Microfinance Institutions followed by credit risk, interest rate risk and regulatory risk respectively. A unit change in managing operational risk, leads to a 0.228 increase in profitability whereas a unit change in credit risk management, leads to a 0.048 increase in profit. Further findings indicate that a change in one unit in managing interest rate risk result to 0.031 increase in profit. Finally, a unit change in managing regulatory risk leads to 0.007 increase in profit.

| | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | Collinearity Statistics | |
|---|---|---|---|---|---|---|---|
| | B | Std. Error | Beta | | | Tolerance | VIF |
| (Constant) | 0.775 | .715 | | 5.277 | .000 | | |
| Regulatory | .007 | .045 | .023 | 2.146 | .011 | .412 | 2.426 |
| Operations | .228 | .053 | .678 | 4.299 | .000 | .427 | 2.340 |
| Interest | .031 | .064 | .075 | 2.288 | .009 | .449 | 2.225 |
| Credit | .048 | .109 | .057 | 2.435 | .001 | .646 | 1.549 |

*Table 3: Regression Analysis*

4.2.2. Hypotheses Testing

Regression results on Table 3 showed that regulatory risk management significantly influence profitability of Microfinance Institutions ($\beta_1$ = 0.007, p-value= 0.011 and t value=2.146) and thus the null hypothesis $H_{01}$ was rejected and conclusion made that regulatory risk management has significant effect on profitability of Microfinance institutions.

Regression results showed that operational risk has a significant influenced on profitability of Microfinance institution at ($\beta_2$ = 0.228, p-value = 0.000 and t-value = 4.299) and thus the null hypothesis $H_{02}$ was rejected. Conclusion is that there is a significant effect of operational risk on profitability of Microfinance Institutions.

Regression results showed that interest rate risk has no significant influenced on profitability of microfinance Institution at ($\beta_3$ = 0.031,p-value = 0.009 and t= 2.288) thus the null hypothesis $H_{03}$ was not accepted. This implies that interest rate risk management has statistically significant effect on profitability of Microfinance Institutions in Nakuru County.

Regression results showed that credit risk did not significantly influenced profitability of Microfinance Institution at ($\beta_4$= 0.048, p value=0.001 and t = 2.435) thus the null hypothesis $H_{04}$ was accepted. The implication of this is that credit risk management has a significant effect on profitability of Faulu Kenya in Nakuru County.

*4.3. Discussions and Recommendations*

From the correlation results, it was found that regulatory risk had a significant positive effect on profitability of microfinance Institution. In addition, regression results showed that regulatory risk had a significant effect on profitability of Microfinance Institutions in Nakuru County. This result is consistent with the findings of Wesonga (2010). The implication is that the existence of a risk management policy and its integration into organizational objectives have a direct effect on financial performance of MFIs.

The second objective of the study was to examine the effects of operational risk on profitability of Microfinance Institutions in Nakuru County. Data analysis revealed that majority of the respondents agreed that the institution very often review loan collection policy and perform operational audit. However, some respondents agreed that the institution rarely carryout client probing. From the correlation results, it was found that operational risk had a significant positive effect on profitability of Microfinance Institution in Nakuru County. Regression results showed that it had a linear relationship with profitability and that it was the most important factor in the multiple linear regression model with standardized beta of 0.678 at p-value of 0.000. These findings are in line with Mwakoro (2010) whose results supported the fact that operational risks if well managed would lead to profitability of MFIs.

The third objective of the study was to determine the effect of interest rate risk on profitability of MFIs in Nakuru County. From the correlation results, it was found out that interest rate risk has a significant positive effect on profitability of Microfinance Institution in Nakuru County. Regression results showed that it had a linear relationship and that it was the second most important factor in the regression model. The study in agreement with Juan and Martinez, (2002) findings. Thus, MFIs should mount effective risk management processes that maintain interest rate risk. At minimum, the board should approve broad business objectives, strategies and policies that govern or influence the management interest.

Finally, the study sought to assess the effects of credit risk on profitability of microfinance Institutions in Nakuru County. This is the degree to which the Institution can manage its loan delinquency and manage loan portfolio among other factors. The findings revealed that majority of the credit officers and managers of Faulu Kenya agreed that the Institution rarely incur loan delinquency. They also agree that the Institution rarely change its loan portfolio quantity. Correlation results indicated a positive significant relationship. Regression results also showed a positive relationship and that it was the third most important factor of the regression model.

Profitability of Microfinance Institutions is influenced by various aspects. The study findings have revealed that operational risk was the most important factor in boosting profitability compared to other three variables; (regulatory risk, interest rate risk and credit risk) of Microfinance Institutions in Nakuru County. In particular performance of operational audit and review of loan collection policy had a strong influence on profitability of Microfinance Institutions in Nakuru County. Therefore, better credit risk management results in better Microfinance Institutions performance. Thus, it is of crucial importance that Microfinance Institutions pursue prudent credit risk management that safeguard the assets of the Institution and protect the investors' interests. Microfinance Institutions are some of the predominant financial institutions whose changes in performance and structure have far reaching implications on the whole economy. The of this study findings concur with Wesonga, (2010) research who found out that risk affects daily operation of commercial banks and therefore affect the return on assets. Wesonga recommended that commercial banks should manage risk efficiently and effectively so that they can increase return on assets. Commercial banks and MFIs are both financial Institutions hence Wesonga's findings are equally helpful to MFIs. The study concludes that all the four dependent variables if managed well will increase profitability in MFIs.

## 4.4. Recommendations

Based on the findings from the study, it is recommended that MFIs be thorough in identifying the risk areas. This can be enhanced by examining the credit and lending operations, and reviewing funding sources, loan transactions and portfolio management processes. Policies should be evaluated and revised accordingly to keep risks at the minimum. Risk management should be an explicit part of the line functions (i.e. program, financial, legal, among others). For example, branch managers be responsible for managing the credit, operational and fraud risks associated with the branch's loan portfolio. Regulated MFIs often hire treasury managers to oversee the institution's investment portfolio and to manage the institution's overall investment funds risk. The MFI should be clear in assigning responsibilities to risk managers. The MFI should not assume that managers understand their role in managing risks simply because they fall under their areas of supervision, but should clearly state the expectations and limitations of their risk management responsibilities. In addition, management can solicit information from employees and clients about the effectiveness of current risk management strategies and ideas for additional controls and strategies to monitor and mitigate risk.

Regulatory risk is considered external risk because Microfinance Institutions particularly small to medium size ones, tend to have little influence over the regulatory environment. Despite the above fact, Microfinance Institutions should educate their clients of their rights and responsibility in the loan process. This is because most of the Microfinance clients tend to be of low education levels. Finally, the management and board of Microfinance Institutions should consider each of the risks identified as vulnerable points. It is their responsibility to assess the institution level of exposure, prioritize areas of greatest vulnerability, and to ensure that proper controls are in place to minimize Microfinance Institution exposure.

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