EFFECT OF GROSS LOAN PORTFOLIO MANAGEMENT PRACTICES ON PERFORMANCE OF DEPOSIT TAKING MICRO FINANCE INSTITUTIONS IN KENYA: A SURVEY OF DEPOSIT TAKING MICRO FINANCE INSTITUTIONS IN UASIN GISHU COUNTY

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DEDICATION
This research is dedicated to God Almighty for the gift of life and my family for their love, support and encouragement.
I express my sincere gratitude to God the Almighty who blessed me with good health and strength during the research period. This work could not have been possible without the cooperation and support of a number of people, who in one way or the other steered me towards my ultimate goal.

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ABSTRACT

Microfinance plays an important role in adding value to people with little or no income and who may not have collateral to allow them to borrow from commercial banks. Their performance is manifested in the financial services that they offer to their clients. Loan portfolio management features prominently as a major challenge. Loan portfolio management therefore, is regarded as not only the largest asset, but also as the predominant source of revenue. Its central role in financial
institutions makes it the greatest source of risk to the institution’s safety and soundness. This study was on Effect of gross loan portfolio management practices on performance of deposit taking micro finance institutions in Uasin Gishu County. Specifically this study looked at four theories that, accounting policies, credit policies, portfolio disclosure reports and portfolio monitoring were adopted to guide the study. Theories that explained the variables were Modern portfolio theory, Trade off, Stakeholder and Stewardship theories were discussed in relation to the key variables of portfolio management. Four deposit taking MFIs with a population of 33 staff formed the sample size. Census technique was used where all 33 officers were selected. The study adopted quasi-experimental posttest research design. Data was collected through administration of questionnaires. The questionnaire was structured using a five point Likert scale to measure levels of agreements towards the statements. The study used the expert opinion method to measure the validity of the research instruments. Internal consistency was used to test reliability, where Cronbach’s alpha co-efficient of above 0.7 confirmed the reliability of the research instruments. Data was analyzed using descriptive statistics: mean, standard deviation, frequency, percentages and inferential statistics techniques: multiple regressions. The analyzed data was presented using tables. Findings of the study were that gross loan portfolio management practices affects positively the performance of deposit taking MFIs. The study found that accounting policies, credit policies, Portfolio disclosure reports and portfolio monitoring were all significant and had a positive effect on portfolio management. This will benefit the government, MFIs and other scholars who will refer to it. The study recommended that further research be carried out to determine the effects of gross loan portfolio management practices on credit only MFIs in Uasin Gishu County using a larger sample and compare with this findings.

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<th>Description</th>
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<tr>
<td>ALB</td>
<td>Average Loan per Borrower</td>
</tr>
<tr>
<td>AMFI</td>
<td>Association of Microfinance Institutions</td>
</tr>
<tr>
<td>CAPM</td>
<td>Capital Asset Pricing Model</td>
</tr>
<tr>
<td>CEO</td>
<td>Chief Executive Officer</td>
</tr>
<tr>
<td>CGAP</td>
<td>Consultative Group to Assist the Poor</td>
</tr>
<tr>
<td>EFA</td>
<td>Exploratory factor Analysis</td>
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<tr>
<td>IAS</td>
<td>International Accounting Standards</td>
</tr>
<tr>
<td>KMO</td>
<td>Kaiser Meyer Olkin</td>
</tr>
<tr>
<td>KNBS</td>
<td>Kenya National Bureau of Statistics</td>
</tr>
<tr>
<td>KWFT</td>
<td>Kenya Women Finance Trust</td>
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<tr>
<td>LLR</td>
<td>Loan Loss Rate</td>
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<td>MFI</td>
<td>Microfinance Institution</td>
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<tr>
<td>MPT</td>
<td>Modern Portfolio Theory</td>
</tr>
<tr>
<td>NAB</td>
<td>Number of Active Borrowers</td>
</tr>
<tr>
<td>PAR</td>
<td>Portfolio at Risk</td>
</tr>
<tr>
<td>PCA</td>
<td>Principal Components Analysis</td>
</tr>
<tr>
<td>ROA</td>
<td>Return on Assets</td>
</tr>
<tr>
<td>ROE</td>
<td>Return on Equity</td>
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<tr>
<td>SACCO</td>
<td>Savings and Credit Cooperative</td>
</tr>
<tr>
<td>SML</td>
<td>Security Market Line</td>
</tr>
<tr>
<td>UN</td>
<td>United Nations</td>
</tr>
<tr>
<td>VIF</td>
<td>Variance Inflation Factors</td>
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<tr>
<td>WOR</td>
<td>Write Off Ratio</td>
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</tbody>
</table>
CHAPTER ONE
INTRODUCTION

1.1 Background to the Study
Microfinance plays an important role in adding value to people with little or no income and who may not have collateral to allow them to borrow from commercial banks. The performance of microfinance is manifested in the financial services that they offer to their clients to alleviate poverty, promote opportunities, enhance security and facilitate their empowerment. Among services offered by micro-financing institutions include; loans, savings, micro insurance, technology and rural outreach (Muiruri, 2014). Micro insurance services increase performance in terms of protection from disasters, drought, illness or death. Technology on the other hand is used to reach financial services to the most marginalized and those in remote areas. Microfinancing institutions take cognizance of the fact that in developing countries, people residing in rural and remote areas have difficulties in accessing financial services leaving them impoverished. Consequently, most MFIs take financial services to the people no matter the distance (Hermes & Lensik, 2011).

The performance of microfinance with regards to poverty eradication continues to gain recognition among scholars. The World Bank (2009) acknowledges that the food crises that continue to push millions of people into extreme poverty have occasioned proliferation of poverty eradication programmes in most developing countries. Not all of these programs as reported by Alimukhamedora (2013) are able to reach the poorest among the poor people. Microfinance is therefore perceived as the solution to the endeavor to reach as many deserving individuals as can be fathomed. According to Alimukhamedora (2013), microfinance is easily accessible to a large proportion of the poor despite requiring less investment. The global crisis of the late 2007 is reported to have posed major challenges to some MFIs (Di Bella, 2011). Among the impacts, the
The global crisis had on microfinance is reported to have been deteriorating in the quality of portfolios for most of the MFIs (CGAP, 2009). Some MFIs reported increased portfolio at risk (PAR), others experienced loan delinquency, while others reported liquidity constraints (CGAP, 2009).

Loan portfolio is regarded as not only the largest asset, but also as the predominant source of revenue. According to the loan portfolio management handbook (2017), the central role loan portfolio plays in financial institutions makes it the greatest source of risk to the institutions safety and soundness. Defining loan portfolio management as a process of managing and controlling risks inherent in the credit process, the handbook notes that of fundamental importance to financial institutions is the ability to effectively manage their loan portfolio. Loan portfolio management handbook (2017). Indeed, a number of studies have been conducted globally with a view of establishing how various financial institutions have addressed the issue of loan portfolio management.

Discourse on management of loan portfolio particularly in microfinance institutions has also permeated the African continent. Addae–Korankye (2014) focuses on what causes loan default or delinquency in Ghana’s microfinance institutions and how this could be controlled. Buoyed by the understanding that microfinance institutions have been associated with effective implementation of programs. Their study arguments were that interest rates, loan sizes, monitoring, appraisal, and client selection were major factors that could lead to loan default.

Analysis of loan portfolio management in Kenya has focused on aspects such as organizational profitability (Gongera, Miroga, Njoroge et al, 2013); micro-credit default (Gatimu & Kalui, 2014, Muturi, 2016); loan performance (Moti, Masinde, Mugenda & Sindani, 2012); and loan
delinquency (Warue, 2012). According to Gongera et al. (2013), advancing loans from deposits made by customers continues to put banks under liquidity risk. This however does not clearly spell out how such risk impacts on the eventual value of the banks. Gongera and colleagues argue that though loans present liquidity risks, they are unavoidable given that higher loan volumes are commensurate with higher income accruals from interest and hence increased profit potentials.

Muturi (2016), contends that increased loan portfolio at risk (PAR) is a major concern to the health of microfinance institutions in Sub-Saharan Africa. Muturi does not however connect microfinance health in terms of the value such as MFIs possess. Muturi identifies institutional characteristics such as loan monitoring, prompt loan disbursement, client screening, and adherence to loan procedures as among determinants of loan default. The question then remains whether loan default has potential to affect the performance of the MFI in question. Gatimu and Kalui (2014) report that credit policies, procedures for loan recovery and the process used for loan appraisal are significant predictors of loan default. They however do not highlight the impact gross loan and social service portfolio could then have on the financial performance of the microfinance institution.

Moti, Masinde, Mugenda and Sindani (2012) argue that MFIs in Kenya suffer from high levels of non-performing loans. In their view, the size of the MFI, signing agreements, loan portfolio diversification, credit rating, and MFIs self-evaluation reports determine loan performance among microfinance institutions. Gatimu and Kalui (2014) argue that credit policy, loan appraisal process, and loan recovery procedures significantly impact on loan default. It therefore becomes apparent that gross loan portfolio management remains a major issue among microfinance institutions, which could pose a major threat to the performance of the industry if not individual MFIs.
1.2 Statement of the Problem

The potential that microfinance has as a tool for alleviating poverty by providing financial services to under privileged members of the society is well documented (UN, 2013). Through MFIs, the poor have been able to grow their savings, rural and remote areas have been reached and cooperatives have been strengthened. Nonetheless, despite the potential benefits that accrue from micro financing, the performance of some of these micro-financing institutions has been found wanting. The sector report on microfinance in Kenya (2014) indicates that credit only MFIs have performed poorly with a significant deterioration in portfolio. Although factors such as structural fragility, supply of credit not able to meet demand, and limited ability to meet demand from enterprises have been associated with MFIs poor performance, poor loan portfolio management features prominently in discourse as the major challenge. The sector report (2018) shows that as of December financial year 2016/17, the microfinance who shared the data recorded 8% positive growth moving from 35.1 billion to 37.8 billion. However, at the same period 15 institutions recorded 5% negative growth with portfolio declining from 52.4 billion as at 31/12/2016 to 49.9 billion as at 30/6/2017. The report further notes that the overall portfolio quality deteriorated for the period. MFIs had PAR with highest concentration in older ageing– categories. The report further notes that their PAR>90, PAR>180 and PAR>365 were quite significant and were somehow responsible for the deterioration in portfolio quality and challenges experienced in overall portfolio management.

Although studies have examined the impact of loan portfolio management on performance of microfinance institutions, they have tended to focus more on financial indicators of performance such as profitability, ROA, ROE among others. There is no doubt that MFIs bring a lot of social value in terms of: provision of loans, saving opportunities, micro-insurance, technology and rural outreach. More often than not performance of MFIs in terms of these core functions is hardly put
into consideration. The study therefore sought to establish the impact such deterioration in portfolio could have on these functions by examining the effect of gross loan portfolio management practices on the performance of deposit taking microfinance institutions in Kenya.

1.3. Overall Objective

The overall objective of this study was to establish the effects of gross loan portfolio management practices on performance of deposit taking microfinance institutions in Uasin Gishu County.

1.3.1 Specific Objectives of the Study

i. To establish the effect of accounting policies on the performance of deposit taking microfinance institutions in Uasin Gishu County.

ii. To find out the effect of credit policies on the performance of deposit taking microfinance institutions in Uasin Gishu County.

iii. To determine the effect of portfolio disclosure reports on the performance of deposit taking microfinance institutions in Uasin Gishu County.

iv. To examine the influence of portfolio monitoring on the performance of deposit taking microfinance institutions in Uasin Gishu County.

1.4 Hypotheses of the Study

The study was analytic in approach since the performance of MFIs was measured with known constructs and therefore the researcher chose to analytically explore the effect of each portfolio management practice on each of the identified constructs. Research hypotheses were therefore formulated in line with the stated specific objectives and were as follows:
**H₀₁:** Accounting policies have no statistically significant effect on the performance of deposit taking microfinance institutions in Uasin Gishu County.

**H₀₂:** Credit policies have no statistically significant effect on the performance of deposit taking microfinance institutions in Uasin Gishu County.

**H₀₃:** Portfolio disclosure reports have no statistically significant effect on the performance of deposit taking microfinance institutions in Uasin Gishu County.

**H₀₄:** Portfolio monitoring has no statistically significant effect on the performance of deposit taking microfinance institutions in Uasin Gishu County.

### 1.5 Significance of the Study

The contributions made by microfinance institutions towards empowering the poor and alleviating poverty informed the desire to conduct the study. The researcher viewed that findings from such a study will possess potential benefits not only to the industry players but also to other stakeholders as well as the Government of Kenya through the relevant Ministry of finance.

First and foremost, the study findings will offer microfinance institutions a springboard upon which to exploit existing strategies of managing their loan portfolio for purposes of improving their performance in order to further improve their overall performance and hence regain competitiveness. Moreover, the study findings will provide an avenue that the Ministry of finance can use to appraise existing MFIs other than relying on financial measures only. Besides the findings have potential to inform arguments towards further reforms targeting microfinance institutions. The study findings will also add to existing literature delving on the subject of portfolio management in microfinance institutions examined from a performance perspective.
1.6 Scope of the Study
Scope is a key parameter identified by Castetter and Heisler (as cited in Creswell, 2008) as offering the study’s boundaries, qualifications, exceptions and reservations. Consequently, the scope shows the coverage in terms of academic and geographic contexts. The geographic scope of the present study was Micro finance institutions in Kenya, which were narrowed down to those based in Uasin Gishu County.

1.7 Limitations of the Study
The study was conducted in Uasin Gishu County and the findings are limited to deposit taking microfinance institutions in the county and may not be generalized to cover other MFIs in the County and in other counties. Data collection relied mainly on the questionnaire. The researcher administered questionnaires to respondents to fill them themselves was limiting since some of the respondents gave responses that were not well thought out before answering. In extreme cases, an assistant was recruited to help collect them. Moreover, the high non-response rate associated with questionnaire was known to interfere with the external validity. The researcher ensured that as many of the questionnaires were filled and returned.

1.8 Assumptions of the study
This study was based on the assumption that proper management practices of gross loan portfolio determines how well an MFI performs in the market. For the portfolio to be profitable the levels of breadth and depth outreach determines the size and attractiveness of the portfolio which when managed well determines performance.

1.9 Operational definition of terms
Accounting policies- Are specific principles, bases, conventions, rules and practices applied by an entity in preparing and presenting financial statements.
Credit policies: - are clear written guidelines that set terms and conditions for issuing out loans, qualification criteria, loan collection methods, steps to be taken in case of delinquency. This can be also called loan collection policy.

Gross loan portfolio: - All outstanding principal for all outstanding client loans, including current, delinquent and restructured loans, but not all loans that have been written off. It does not include interest receivable and employee loans.

Portfolio disclosure reports: - Portfolio disclosure is the releasing of all relevant information pertaining to a company that may influence an investment decision

Portfolio management: - is the art of selecting the right investment for the individual in terms of minimum risk and maximum return..

Portfolio monitoring and control: - is a function of delinquency monitoring, tracking of payment performance, internal controls, fraud control, and staff incentives.

CHAPTER TWO
LITERATURE REVIEW

2.1 Theoretical literature Review

Four theories, Modern Portfolio theory (MPT), trade off theory, stakeholder theory and stewardship theory were reviewed in relation to the key variables of portfolio management. On the contrary, transaction cost innovation theory was reviewed in relation to how it informs microfinance performance.
2.1.1 Modern Portfolio Theory

Modern portfolio theory (MPT) was proposed by Harry Markowitz in the early 1950s ostensibly as an investment decision tool (Omisore, Yusuf & Nwufo, 2012). Megginson (as cited in Myles, 2013,) contends that through the MPT model, Markowitz was able to articulately describe the impact of a number of securities in a portfolio along with their covariance relationships on portfolio diversification. In essence, therefore the MPT is viewed as a tool for risk-averse investors to gain opportunities for maximizing expected returns while at the same time minimizing market risk (Investopedia.com, 2018).

Modern Portfolio Theory takes cognizance of the fact that a portfolio as a grouping of financial assets that include bonds, stocks and cash equivalents, as well as associated funds, requires that investments risk and return characteristics are not viewed alone but rather as the overall portfolio, risk and return (Investopedia.com, 2018). Markowitz therefore noted that an investor could achieve diversification and a reduction in volatility of gross portfolio by considering how securities co-move with each other (as cited in Pedersen, 2014).

Several models were as a consequence advanced to help construct portfolios that could guarantee maximum returns and minimum risk in view of co-movements among securities. Key among these models includes; the efficient frontier curve, the capital market-pricing model, and the security market line.

The success of the Modern Portfolio Theory and its models is pegged upon number assumptions. Hull (2012) argues that MPT models are often left compromised in financial contexts where some
of the assumptions are not eligible. However, Hull adds that whenever such assumptions are taken care of MPT has been proven useful for financial portfolio management.

Omisore et al. (2012) identified eleven key assumptions that ought to be considered when applying MPT. They include; the assumption that information disseminated by financial markets is practically efficient for the sole purpose of investment; asset returns are variables jointly normally distributed; the correlation between assets forming a portfolio is fixed and constant; all investors focus on maximization of economic utility, are rational and risk averse; investors have access to the same information and have an accurate conception of possible returns, there are no taxes or transaction costs; all investors are only price takers and their actions do not influence pricing; lending and borrowing is unlimited and under risk free rate of interest; and all securities come in parcels of any size.

The real world market environment however, exposes MPT to a lot of criticism. It is argued that there is a mismatch between the ways MPT views the financial markets and how such markets appear in real life settings (Omisore et al., 2012). For instance, although MPT assumes efficient markets, critics have blamed global financial crises of the Post 2000 era on a belief in rational markets (Hull, 2012), proponents of the theory however point to market efficiency as an aspect of practical efficiency for purposes of investment as opposed to a lack of future uncertainties. Moreover, while MPT assumes that assets are normally distributed, evidence shows that returns in equity as are other markets, are not normally distributed. It is argued that large swings in ROE occur at a frequency that is not consistent with the assumption of the normal distribution (Omisore et al., 2012).
Another point of concern noted with regards to use of MPT is the assumption that investors are only price takers. While proponents of the theory tend to assume that investors actions have no influence on pricing. Critics argue that investors personal factors, environment and strategic dimensions associated with investment decisions are key investment drivers. Sabbadini (cited in Omisore et al., 2012) points to the financial investment successes in noting that investment returns could be more of a result of his managerial skills as opposed to investment skills.

The choice of the MPT for this study was based on the need to align loan portfolio management control systems inherent in credit policies and procedures with the models of MPT. Models such as the efficient frontier model, capital pricing model, and the security market line, are in essence models for controlling credit risk. It is argued that a microfinance institution (MFI) which is aptly defined as a variety of financial services targeting low income earners needs to balance the different types of risk within its portfolio (Adugna, 2014). Narahari (as cited in Adugna, 2014. p. 19) identifies credit risk, interest rate risk, and liquidity risk as common risks facing MFI’s.

According to Narahari, credit risk is as a result of the unwillingness or inability among clients to repay loans. The resultant is that the MFI’s portfolio deteriorates, revenues reduce, and operating expenses increase. On the other hand, interest rate risk, which relates to changes occurring in market interest rates during the term of the loan, results from MFIs mismatch of maturities of its assets and liabilities. Narahari further identifies a MFIs liquidity risk as largely residing in its loan portfolio (Narahari, as cited in Adugna, 2014). The need to control such risks no doubt underpins the proposed study within the MPT models.
Adugna (2014) suggests that the efficient frontier model can for instance be used to model lower portfolio construction for all levels of expected risk, as well as for given levels of expected returns. Evidence shows that receiving back money loaned to borrowers together with the accrued interest is the most common and often the most serious vulnerability in MFI's (Warue, 2012). Warue argues that lack of security for micro loans tends to lead to delinquency that affects a significant portion of the portfolio. There is need therefore to control credit risk by putting in place systems such as business and capital planning, risk identification and classification, loan underwriting and loan appraisals that can highlight problems associated with repayment clearly and quickly. MPT models have the propensity to facilitate such systems.

Indeed, Magali (2014) identifies strategic planning, lending policies, underwriting standards and risk identification as key internal preventive control systems that form key characteristics of effective loan portfolio management. The efficient frontier model therefore plays a significant role in identification of the best systems for the maintenance of MFI's credit safety and soundness. Moreover, the capital asset pricing model could be useful in informing expected portfolio management realized from the diverse control systems.

### 2.1.2 Trade off Theory

Trade off theory was suggested by Myers in 1984 as a capital structure theory seeking to explain debt and equity as major sources of finance for corporations (Shahdila, Shalzlinda, Norfadilah, Nurul Walji, Shafina & Nurauliani, 2015). The tradeoff theory posits that the firm in question opts to trade off its benefits and costs. According to Syed Muhammad (2012), a set of investments is compared and priority is then given to the better one(s). Mihaela (2012) views trade off theory as seeking to strike a balance between the tax shield benefits accruing from a debt and the dead weight
costs of bankruptcy. On the basis of this theory, it is argued that debt tax shields have potential for generation of annual benefits. Consequently, firms are motivated to turn to debt (Serrasqueiro & Caetano, 2012).

Myers (as cited in Serrasqueiro & Caetano, 2012) posits that there is reluctance among firms to use high amounts of debt for fear of increasing the likelihood of bankruptcy. The bottom line is that on the basis of trade off theory, greater growth opportunities are proportional to lower level of debt. Besides, the tradeoff theory postulates that the ability among large firms to diversify activities enables them to increase debt level owing to their lesser likelihood of bankruptcy (Serrasqueiro & Caetano, 2012). According to Danso and Adomako (2014), there is a tradeoff between tax shield benefits and costs incurred by the firm due to financial distress and agency. It is therefore further argued that balancing costs of debt issuance with benefits accruing from interest payments leads to the achievement of optimal level of leverage (Jahanzeb, Bayuri, Karami & Ahmadimousaabad, 2014).

Syed Muhammad (2012) identifies two types of trade off theory. According to him, static trade off makes the assumption that despite benefits that may accrue from tax shield and associated drawbacks for too much debt, the capital structure of the firm remains optimal. The basis of Syed Muhammad’s argument is the understanding that too much debt and agency cost can pose serious financial distress. Essentially, therefore actual leverage from agency cost and tax often deviates from the optimal capital structure.

The second trade off model, the dynamic model is noted to consider the element of time when looking at the capital structure (Syed Muhammad, 2012). According to this model, it is not
possible for a firm to adopt optimal levels of debts mostly. Citing Goldstein et al. (2001), Syed Muhammad argues that a firm can have optimal level today, raise more funds, and pay them out in future.

Awan and Amin (2014) contend that although existing trade off models are capable of analyzing the optimal amount of debt, they fail to provide ample guidance on debt structure. Awan and Amin posit that trade off models operate on assumptions that make them remain silent on question of mix of market against non-market debt and specification of priority. Key among these assumptions include; issuing of single classes of debt by firms; prevention of renegotiation as a result of dispersion of firms creditors; trade off models also assume that interest rate concession can be obtained in costless bilateral renegotiation with a single creditor; and that each source of money bears own cost and return associated with earning capacity of the firm and its business and risk insolvency (Awan & Amin, 2014).

Despite remaining a dominant theory explaining corporate capital structure, trade off theory has had to contend with several criticisms, Miller (cited in Matemilola, Bany-Ariffin & McGowan, 2012) for instance, argues that were the tradeoff theory been true, then the debt levels of firms as observed in reality ought to be much higher. Miller goes on to observe that ‘taxes are large, are sure, while bankruptcy is rare, and has low dead weight costs’. Myers (as cited in Jahanzeb, et al., 2014) in proposing the pecking order theory argued that firms would rather give priority to internally raised funds such as retained earnings as sources of finance for new investments, before opting for debt and issue equity. Another critic of the tradeoff theory was Welch (cited in Ramadan, 2015). According to Welch, under basic trade off theory, firms are not able to undo the
impact of stock price shocks in the way they are expected. This results in mechanical changes in asset prices to dominate variation in capital structure.

Choice of the tradeoff theory for the proposed study was informed by the dynamism in microfinance industry that has seen a decline in donor funding requiring a tradeoff between outreach and sustainability of the institutions (Abdulai & Tewari, 2017). Evidence shows that most MFI’s are not performing well financially, outreach wise and in terms of efficiency (Cull et al., as cited in Abdulai & Tewari, 2017). Indeed, Schicks (2013) observes that over indebtedness becomes such a problem even in situations where portfolio quality may seem to be good.

Abdulai and Tewari (2017) argue that high transaction costs required in facilitating small loans given to poor clients, some who reside in remote and inaccessible areas necessitates tradeoff between outreach and sustainability. Evidence exists showing a tradeoff between financial performance and outreach to the poor (Crawford, Skully & Tripe, 2011, Hermes, Lensink & Meesters, 2011). The argument posited is that MFIs that achieve high financial performance tend to do so at the expense of outreach to the poor (Abdulai & Tewari, 2017).

Christen and McDonald (as cited in Abdulai & Tewari, 2017), argue that for good management, MFIs ought to adhere to optimal lending practices that should essentially administrative expense which form part of the gross portfolio at between 15-25 percent. The tradeoff between financial performance and outreach could therefore form the basis for portfolio monitoring and control among the MFIs. According to Ledgerwood and White (as cited in Trong, 2015) the diminishing donor funding has made MFIs to access commercial funds in order to meet demands of new and
existing clients as well as to improve their performance. This essentially calls for thorough monitoring of portfolio.

Several factors are highlighted that can be optimized for proper portfolio monitoring and control. According to Akoth (2016), credit culture provides policies that act as guides for managing credit risk. Consequently, prudent monitoring should seek to establish the unique policies, experiences, practices and attitude that define the lending environment within the individual MFIs. Moreover, Mukonda (as cited in Akoth 2016), contends that MFIs should look to diversify products. The argument made is that diversification could spur consistent performance by reducing credit risk.

Another factor that features prominently in literature regarding detective control in portfolio management is portfolio segmentation. Nwokocha, who is the senior risk management consultant for sage works, observes that portfolio should be segmented for purposes of ease of identification, measurement, control and monitoring (Nwokocha, 2015). According to Nwokocha, segmentation of loan portfolio ought to be done in homogeneous pools that share common attributes. Such attributes should reflect the segmentation risk specific to the institution (in the present case, each MFI). Nwokocha further suggests that an aggregate view could be used to stratify borrowers in a segment according to capital sources, repayment sources and balanced sheet structure (Nwokocha, 2015).

Bassem (2012) opines that financial performance has become the watchword in MFI governance. So much attention is therefore being paid to profitability thereby moving the institutions away from their primary objective of serving the poor financially. On the other hand, Bassem observes
that the viability of the institutions could be threatened by an overly social vision. The bottom line is that the tradeoff theory cannot be ignored in such situations.

2.1.3 Stakeholder Theory

Stakeholder theory was proposed by Friedman (as cited in Meyer, 2016) as a normative theory of corporate social responsibility. According to Manetti (2011), companies and stakeholders are interdependent. The mutual dependency requires that the relationship between stakeholders and corporations is properly maintained. As reported by Meyer (2016), stakeholder theory states that companies owe responsibility to a wider group of stakeholders and therefore they ought to put into consideration the different perspectives and expectations of this wider group.

Several scholars identify the stakeholder theory as the most ideal for companies to use when identifying and engaging stakeholder groups in corporate decisions and meeting their expectations (Amran & Ooi, 2014; Hahn, & Kuhnen, 2013). The stakeholder theory therefore posits that involvement of stakeholders in corporate decisions increases corporate transparency and by consequence increases the quality of performance (Amran & Ooi, 2014).

Stakeholder theory has widely been employed in management literature, in management accounting and also in public sector research (Julie, Rouse & De Villiers, 2012). Julie et al, further note that stakeholder theory is used by institutions seeking to identify the relative importance of stakeholder objectives that can be used to pick out primary stakeholders of institutional performance. Donaldson and Preston (as cited in Harrison & Wicks 2013) contend that companies have the possibilities of lasting for long through building and sustaining mutual dependence relationships with their stakeholders. The argument given is that such relationships are indeed the assets needed to be managed in order to maximize organizational wealth (Harrison & Wicks, 2013).
Although most of the extant literature on stakeholder theory is supportive of a positive stakeholder and firm relationship, several criticism of the theory are reported (Price, 2004). Windsor (as cited in Price, 2004) argues that stakeholder theory fails to explicitly specify the relationship between stakeholder and economic reasons which is a major lacuna. Windsor notes that financial economic literature has shown substantial resistance to stakeholder theory. Marcoux (2000) posits that being obligated to non-shareholders in the name of serving stakeholders only acts as a constraint towards the pursuit of shareholder interests.

Another area of concern raised in relation with the stakeholder theory is that of the meaning of a stakeholder. Windsor (1998) for instance reports of a stakeholder being seen in same quarters as everyone who affects or is affected by an organization. Other quarters however conceive stakeholder ship as a concept, which is more than just a union of influence (Donaldson & Preston as cited in Harrison & Wicks, 2013).

Despite the noted criticisms of the theory, the proposed study found it suitable in explaining the key variable of portfolio disclosure reporting. The international integrated reporting council (IIRC, 2013) notes that a company needs to disclose information regarding its near, medium and long term capacity to generate value. Value creation for the poor is the basic objective of microfinance organizations (Kalva, Mathur & Rajeev, 2014). In order to achieve this purpose, MFIs cannot afford to ignore the context in which they operate. A network of relationships no doubt connects MFIs to stakeholders as postulated by Donaldson and Preston (as cited in Harrison & Wicks, 2013). Consequently, with stakeholders in mind, MFIs are expected to submit reports on the status of their loan portfolio.

Topazzini (2012) posits that organizations need to understand how they are performing by continuously assessing and reporting their set targets, goals and objectives and making adjustments whenever necessary for purposes of satisfying their stakeholder. Topazzini identifies five reasons
that should make organizations prioritize performance reporting as setting benchmarks for improved performance; measuring, controlling and monitoring, the workforce; demonstrating compliance; learning and enhancing performance; and improving communication with stakeholders.

According to Christen and Flaming (2009), representing the consultative group to Assist the Poor (CGAP), there is need for MFIs to submit accurate accounting and performance reports regarding the portfolio and more importantly, the MFIs compliance with the management of its portfolio. Christen and Flaming content that portfolio reports often produced by the management information system within the MFI’s have potential to provide requisite information about lending activities. Moreover, such reports also provide information on loan portfolio quality and distribution (Christen & Flaming, 2009).

A variety of reports are consequently identified and includes; portfolio aging schedules designed for purposes of classifying delinquent loans; methodology reports aiming at identifying active loans; total portfolio and portfolio quality; portfolio reports submitted by branches; reports on restructured and refinanced loans; and reports on non-performing loans (Christen & Flaming, 2009).

2.1.4 Stewardship Theory

Stewardship theory was developed by Donaldson in 1990 and later revisited by Davis, Schoorman and Donaldson in 1997. The basic focus of the theory was to challenge existing notions that managers were always serving their self-interest. According to Schoorman, Wilson, Davis, Hundley and Bagnoli (2012), stewardship theory builds on psychology and sociology to conceptualize that relationships are consensual. Consequently, it is argued that stewards identify with other peoples goals, are intrinsically motivated and have a desire for self-actualization (Davis et al., as cited in Krzemunska & Zeyen, 2016).
Hernandez (2012) argues that on the basis of stewardship theory, management ought to be involvement oriented as opposed to control oriented. The characteristics of such management include participation, collaboration, empowerment, shared leadership practices and trust. Davis et al., (as cited in Krzeminska & Zeyen, 2016) argue that managers or executives of companies act as stewards for the owners and both groups share common goals. Company executives therefore protect the interests of the owners or shareholders and are expected to make decision on their behalf.

The stewardship theory as noted by Davies et al. (as cited in Curtis, 2010) makes the following assumptions. That managers are trustworthy stewards of any given organization, the manager acting as a steward decides to work on behalf of owners and therefore the question of moral hazard does not arise, and residual claims from the firm are shared equitably and therefore maximization of owners’ claims is by extension maximization of the manager’s share.

Choice of Stewardship theory for a study on portfolio management and MFI performance was informed by the desire to explain accountability of loan portfolio in such organizations. Most of these institutions depend on branch managers who act as stewards and represent owners at branch level. Christen and Flaming (2009) argue that MFI executives acting as stewards should put in place accounting policies that address among other key elements; loan balances and arrears, loan rescheduling, loan loss provision, write offs and recoveries; allocation of client repayments; liquidation of collateral and non-cash methods of loan repayment.

2.2 Empirical Review

The following is the empirical review of past studies per variables

2.2.1 Microfinance Performance

The diversity in microfinance models has resulted in several critical areas of microfinance requiring performance measurement. Robinson (as cited in Eyerusalem, 2014) looks at
microfinance as relating to all types of services that offer financial intermediation in the form of savings, insurance, credit, pension remittances and so on, offered to the poor. Churchill and Frankiewicz (2006) on the other hand associates microfinance with small, capital loans invested in micro enterprises or activities that generate income. Hossain and Knight (2008) also view microfinance in terms of loans, savings, and other finance services offered to the poor. Eyerusalem (2014) sums up these definitions by concluding that microfinance is the financial and social services to the poor or low income persons.

Ngo (2012) contends that performance of MFIs needs to focus more on how they are able to meet both the financial and social services. Indeed, Kipesha (2013b) avers that the institutions major objectives should be the determining factors of performance measurement. Consequently, MFIs main objective being to offer financial and social services to the poor requires that performance of these two core functions be measured by comparing the achievements of the MFIs in relation to these functions.

Rosenberg (2009 as cited in Ngo, 2012) concurs with the views that MFI performance ought to focus on financial and social service indicators. Rosenberg therefore identifies sustainability, portfolio quality and efficiency as the key indicators that should be measured in relation to financial services, while outreach should be used to capture social performance among MFIs. Eyerusalem (2014) also identifies profitability and sustainability; asset/ liability management; portfolio quality, efficiency and productivity as the key indicators that should gauge performance of MFIs. By omitting outreach, Eyerusalem forgets the key function of social services.

Rosenberg (as cited in Ngo, 2012) defines outreach as the act of reaching out to the poor and determined by the number of the poor whom the MFI can serve at any given point in time. Imai, Gaiha, Thapa, Annim and Gupta (2011) identify depth and breadth as the two aspects of outreach.
mostly dealt with. Depth is often used to make reference to the poverty level of clients, while breadth is used to signify the scale of operations a MFI can achieve. According to Littlefield and Kneiding (2009), average loan balance per borrower (ALB) and number of active borrowers (NAB) are indicators recommended for the measurement of performance of MFIs in terms of outreach.

Ngo (2012) avers that efficiency of a MFI can be measured in terms of how the MFI handles cost per loan, cost per client, as well as in terms of operating expense ratio. Ngo argues that such indicators can be used to show how much it costs the MFI to serve each client. Rosenborg (2009) observes that a MFI can be thought of as being extremely efficient if the operating expense ratio falls below 10%. Collection of these indicators on a regular basis enables any finding agency to keep track of effectiveness of its projects in producing sustainable results (Ngo, 2012).

Sustainability is another indicator that is readily employed to measure MFIs ability to offer financial services. Hermes, Lensink and Meesters (2011) view sustainability as the ability of an institution to continuously carry out services and activities in pursuit of its intended objectives. Lafourcade et al., (cited in Ngo, 2012) in relating sustainability to profitability identify return on assets (ROA) that reflects the ability of an organization to use assets profitably, and return on equity (ROE) that measures returns on owners investment as the common measures of profitability in commercial entities. Considering that, MFIs hardly receive subsidies, these indicators are deemed appropriate in measuring sustainability (Ngo, 2012).

Portfolio quality is yet another measure of financial services among MFIs. Rosenberg (2009) posits that portfolio quality is the most revealing of the requisite performance areas. Rosenberg argues
that MFIs should look to keep delinquency low so that it does not spin out of control. This can be achieved if MFIs have the ability to identify and collect loans. Ngo (2012) contends that loan collection has been used with substantial success as a strong proxy for competence in general management.

Feiruz (2015) defines loan portfolio as the total loans held by financial institution on any given day. Consequently, loan portfolio is viewed as the largest asset source of revenue. Feiruz argues that for MFIs, loan portfolio reflects the risk of loan delinquency, and can be used to determine the MFIs ability to increase outreach as well as its future revenues. Sindani (2012) contends that a lending programme that revolves on funds and loan repayment no doubt ensures survival of most MFIs.

### 2.2.2 Accounting Policies

Several studies in extent literature continue to link Accounting Policies with performance. Alayemi (2015) examined the effect of accounting policy on interpretation of financial statements. The study by Alayemi was buoyed by the requirement by the international Accounting Standards (IAS) that organizations should disclose the accounting policy adopted in the preparation of financial statements. Using a systematic review of literature, Alayemi concluded that the need to reduce contracting costs often dictates the accounting policy adopted. Moreover, Alayemi argued that choice of a variety of accounting policies has potential to impact ratios such return on capital both directly and indirectly.
Although the conclusions arrived at by Alayemi (2015) provide impetus for organizations to put in place an array of accounting policies based on the recommendations by IAS, a few incongruence are noted in Alayemi’s study. For instance, the study fails to explicitly give the methodology used and the number of studies or books reviewed.

Moreover, the study focuses mainly on use of ratios to analyze financial statements. The proposed study therefore hopes to cover the missing gap of methodology by fusing both the quantitative and qualitative techniques in investigating the influence of accounting policies. Besides, the study hopes to focus mainly on how accounting policies affect performance of MFIs as opposed to being general on organization.

Quays (2013) analyzed the relationship between financial disclose as a facet of accounting policies and financial performance of MFI’s. Motivated by a paradigm shift that requires emphasis on financial performance of MFI’s; Quayes used the ordinary least squares method to analyze the impact of disclosure on financial performance. Using data collected from a web-based platform Quayes find out that financial disclosure had a statistically significant impact on operational performance and financial performance of MFI’s.

Ikpefan, Taiwo and Kazeem (2016) investigated whether human capital accounting impacts on performance of microfinance banks in Ogun State in Nigeria. The study was informed by the realization that human capital forms an integral component of microfinance banks. The study relied on content analysis of annual reports and financial statements of the sampled banks.
Ikpefan et al. (2016) used a sample of 320 bank employees drawn from various levels. These authors used regression analysis to show that human resource accounting significantly affects performance of MFB’s.

Sarkodie, Addai and Asiedu (2015) examined the effect of accounting ratios on survival of MFI’s in Ghana. Noting that accounting ratios provide an efficient means of measuring profitability and efficiency of companies based on financial reports, Sarkodie et al. (2015) used logistic regression to establish whether accounting ratios could predict fortunes of MFI’s. A sample 117 observations revealed that current ratio, acid test ratio and debt to equity ratio were significant predictions of MFI survival.

Oyoo (2014) in looking at accountability analyzed the effect of internal control on financial performance among MFIs in Kisumu central constituency, Kenya. Oyoo’s study was motivated by challenges such as corruption, malpractices and poor performance that continue to affect MFI’s. The study by Oyoo used descriptive and correlation research design and conveniently sampled 7 MFI’s. Using questionnaires to collect data, the study revealed that internal control related positively with performance MFI’s. These findings no doubt strengthen the need for internal controls of MFI’s have to perform in their financial and outreach missions.

2.2.3 Credit Policies

Credit risk management is identified as a key strategy in companies overall risk management. Several scholars have therefore examined the potential risk management has for microfinance performance. Kagoyire and Shinkla (2016) analyzed the effect of credit management on performance of commercial banks in Rwanda. The study was motivated by the understanding that sound credit management is necessary if a MFI has to maintain stability and continue being profitable. Kagoyire and Shukla adopted a descriptive survey design and purposive sampling of
bank employees. Using the questionnaire as the principle data collection instrument, they established that client appraisal; credit risk control and collection policy had significant effects on banks financial performance.

Shieler, Emenike and Amu (2017) assessed credit risk management and financial performance of microfinance institutions in Kampala, Uganda. Noting that credit risk refers to a borrowers failure to meet obligations as agreed, these authors sought to establish the relationship between the key elements associated with credit risk such as identification, appraisal, monitoring, and mitigation on the one side and financial performance on the other. The study used both primary and secondary data to establish that credit risk identification and credit risk appraisal had strong positive correlations with financial performance. However, credit risk monitoring and credit risk mitigation had moderate positive correlations with financial performance.

In a study conducted in microfinance institutions in Kenya, Kalui and Kiawa (2015) examined the effect of procedures used for credit management on financial performance of MFI’s. Buoyed by the fact that credit risk management is a key component of companies risk management strategy, Kalui and Kiawa focused more on risk identification, monitoring analysis and assessment procedures and overall effect on financial performance of the sampled MFI’s. Their study adopted a descriptive research design and targeted 54 micro finance institutions located in Nairobi. Using the questionnaire as the principle data collection instrument, Kalui and Kiawa found out that the four procedures (Risk identification, monitoring, assessment, and analysis) were key elements in credit risk management.
Despite the contribution findings made by Kalui and Kiawa (2015) make towards the management of credit risk in MFIs, the study fails to explicitly bring out, the impact the four procedures have on financial performance of MFIs. Use of the regression model is not reflected in the findings. Moreover, the study does not show clearly who the target populations were and how sampling was done. An elaborate description of the research methodology improves credibility of findings. In yet another study conducted among Saccos in Kisii County, Moronya, Onditi and Nyagol (2016) analyzed the effect of credit risk management practices on financial performance of Saccos. Moronya et al used a descriptive survey design and relied more on the questionnaire for collecting data. They used proportionate stratified sampling followed by purposive sampling. Among their key findings were that credit policy, client appraisal, collateral substitutes and credit monitoring were statistically significant predictors of financial performance of the Saccos.

2.2.4 Portfolio Disclosure

Disclosure statements and reports are noted to be central to loan portfolio management (Sha’ven, 2015). It is argued that stakeholders often require disclosure statements and reports for accountability purposes (Tsamenyi & Uddin, 2008). Sha’ven (2015) argues that disclosure reports and financial statements play an important role in providing necessary information for improved performance.

Quayes and Hassan (2014) examined financial disclosure and performance of microfinance institutions. They utilized ordinary least squares method involving the ordered probit model to investigate the effect of financial disclosure on performance. Among key findings reported by Quayes and Hassan were that better disclosure statistically and significantly impacts on MFIs operational performance. Besides, probit analysis revealed that both disclosure and financial performance affected each other positively in a mutual way.
Findings by Quayes and Hassan have potential for informing MFI’s development of better disclosure policy. This is essence will lead to formulation of effective guidelines for financial disclosure to stakeholders. The proposed study hopes to build on such findings as made by Quayes and Hassan to examine whether loan portfolio management in form of portfolio disclosure can have a significant effect on performance of MFI’s.

In justifying portfolio disclosure reports as a variable in portfolio management, Beisland, Mersland and Randoy (2014) examined the implications of transparency and disclosure in the global microfinance industry. They argued that a gap exists between disclosed information and the need for transparency. Beisland et al agree that financial monitoring by shareholders and stakeholders in general requires information regarding financial returns and sustainability.

Beisland et al. (2014) builds on evidence showing that whereas exchange listed companies avail large amounts of information upon which prospective investors can use to make investment decisions, MFI’s often lack adequate information and knowledge with regards to potential companies to invest in (Beisland & Mersland, 2013). Beisland et al. (2014) therefore concluded that disclosure reports have potential to stabilize reported earnings in MFI’s.

Wangari (2014) analyzed the effect of voluntary disclosure on the financial performance of commercial banks in Kenya. The study by Wangari was motivated by the understanding that disclosure as an element of corporate governance is a factor in the survival and performance of corporate entities. The study broke down voluntary disclosure into strategic, financial, forward looking and social disclosures and used the descriptive research design.
Among the key findings made by Wangari (2014) was that financial, forward looking, and board and social disclosure were positive and significant predictors of return on equity. However, strategic disclosure was found to have a negative but significant effect on return on equity.

Considering that return on equity is just one element of financial performance, the finding by Wangari could be made more meaningful by considering other indicators of performance. Mutiva (2015) examined the relationship between voluntary disclosure and financial performance of companies quoted at the Nairobi securities exchange. Using a descriptive research design and a sample of 10 consistently listed companies, Mutiva found out that voluntary disclosure was a significant predictor of return on investment. In addition, voluntary disclosure was found to account for 38.9% of the variations in ROI implying that indicators used by Mutiva to measure voluntary disclosure omitted quite a large proportion of other potential factors. There is need perhaps to examine more factors associated with disclosure reports.

2.2.5 Portfolio Monitoring

Portfolio monitoring and control according to Christen and Flaming (2009) is a function of delinquency monitoring, tracking of payment performance, internal controls, fraud control, and staff incentives. Consequently, the overall impact of portfolio monitoring on microfinance performance can be viewed from a study of the effects of the factors identified. Addai and Chengyi (2015) for instance argue that banks need to embark on regular monitoring of loans for purposes of reducing delinquent loans. In taking cognizance of the fact that loan portfolio is arguably the largest asset and biggest source of income for banks, Addai and Chengyi (2015) examined the impact of delinquent loans on financial performance of banks in Ghana. Their findings that delinquent loans significantly impact on both interest rate and net profit justify the argument requiring effective monitoring of delinquent loans.
In an attempt to unravel the role of monitoring and control in microfinance performance, Van Damme, Wijesiri and Meoli (2016) examined governance and efficiency of microfinance institutions in Sri Lanka. Their study was motivated by an understanding that most MFIs are failing in their economic and social performance. Van Damme et al., (2016) found out that board size and gender diversity within boards had positive impacts on financial efficiency. Although their findings provide relevant information for theory and practice of microfinance, they did not clearly show in which way board size achieves diversity. Moreover, their study was conducted in the Sri Lankan context and may not have similar impacts in Kenya. The proposed study therefore hopes to examine governance from a loan portfolio monitoring perspective with reference to Kenya MFIs.

Ndambu (2011) assessed the impact of regulation on microfinance performance. He was buoyed by the knowledge that regulation of microfinance had gained momentum in sub-Saharan Africa. Using a multivariate analysis of cross section data from 32 Sub-Saharan African countries, Ndambu established that when regulatory capacity was controlled, countries with high supervisory power tended to have more sustainable MFIs. These findings by Ndambu clearly justify the need for supervision of MFI operations. They however fail to state what should be supervised and what individual MFIs should do to supervise and improve their overall performance. It is with this in mind that the proposed study hopes to examine the effect of MFIs loan portfolio monitoring on MFI performance.

2.3 Research Gaps

Most reviewed studies used the descriptive research design, which cannot adequately explain causal effect relationship between the study variables. Studies in the reviewed literature have more
focus on MFI’s financial performance without segmenting them into their proper categories such as credit only or deposit taking, Juan, Christophe and Lyn (2017). As they do, so no suggestions have been put forward on how to manage portfolios, how to management of credit portfolio affects the performance deposit taking MFIs, how management of loan portfolios influences performance. In addition, studies conducted none has measured MFIs performance from these two perspectives of outreach and financial performance, which should be the case. This research filled this gap by looking at how gross loan portfolio management can affect MFIs performance.

2.4 Conceptual Framework
The need to manage firms loan portfolio is well documented (Pedersen, 2014). Evidence shows that credit risk can be controlled when loan portfolio management is aligned with modern portfolio theory models (Adugna, 2014). Moreover, Magali (2014) identifies strategic planning, lending policies, underwriting standards and risk identification as key internal preventive control systems that form key characteristics of effective loan portfolio management. A decline in donor funding has had a negative impact on MFIs requiring a tradeoff between outreach and sustainability of the institutions (Abdulai & Tewari, 2017). The tradeoff between financial performance and outreach could therefore form the basis for portfolio monitoring and control among the MFIs. Effective management of loan portfolio has also been touted as a function of effective reporting. According to Christen and Flaming (2009), representing the consultative group to Assist the Poor (CGAP), there is need for MFIs to submit accurate accounting and performance reports regarding the portfolio and more importantly, the MFIs compliance with the management of its portfolio. The bottom line is that MFI CEOs should act as stewards and remain accountable to shareholders by putting in place accounting policies that address among other key elements; loan balances and arrears, loan rescheduling, loan loss provision, write offs and recoveries; allocation of client repayments; liquidation of collateral and non-cash methods of loan repayment. Gross loan
portfolio management measured via accounting policies, credit policies and procedures, portfolio disclosure reporting, and portfolio monitoring and control is therefore conceptualized as the independent variable.

Extant literature further shows that MFI performance ought to focus on both financial and social services (Ngo, 2012). To this end, several indicators are associated with measurement of both financial and social performance facets of MFIs. Rosenberg (2009 as cited in Ngo, 2012, p. 105) identifies sustainability, portfolio quality and efficiency as the key indicators that should be measured in relation to financial services, while outreach should be used to capture social performance among MFIs. Eyerusalem (2014) also identifies profitability and sustainability; asset/liability management, portfolio quality, efficiency and productivity as the key indicators that should gauge performance of MFIs. MFI performance measured using portfolio quality, financial sustainability, efficiency and outreach is therefore conceptualized as the dependent variable. Figure 2.1 presents the conceptualized causal relationships between gross loan portfolio management indicators and MFI performance.

(Gross Loan Portfolio Management)
Figure 2.1: Conceptual Framework

CHAPTER THREE

Independent Variable

Accounting policies
- Controlling unrecorded cash
- Robust accounting systems
- Explaining discrepancies
- Analyzing and interpreting PAR reports
- Loan classification
- Reports and policies

Credit policies
- Multiple lending
- Rate of loan increase
- Accountability of credit officers
- Loan restructuring and renegotiation
- Compulsory borrower’s savings
- Loan top up
- Loan product guidelines

Portfolio disclosure reports
- Complete set of portfolio reports and statements
- Timely submission of accurate reports
- Disclosure of outstanding loans
- Extent of late loan payments
- Investments are separated from interest and income
- Clearly defined portfolio reports

Portfolio Monitoring
- Loan cost per client
- Treatment of arrears
- Growth rate
- Monitoring non-performing loans
- Client Appraisal
- Breadth of outreach
- Staff turnover

Dependent Variable
- Cost per client loan
- Treatment of arrears
- Growth rate
- Monitoring non-performing loan
- Client appraisal
- Breadth of Outreach
- Staff turnover

(Micro Finance Performance)
3.1 Research Design
A research design outlines the procedures that the research adopts. It is a blueprint that gives in detail, the methods for data collection, analysis, and interpretation (Creswell, 2013). In essence, therefore the research design for the proposed study refers to the plan, structure and strategy that the study will use to investigate the effect of gross loan portfolio management on microfinance performance. Creswell observes that choice of an appropriate research design is informed by among other factors, the nature of the research problem or issue being addressed. Considering that the proposed study hoped to test objective theories by examining relationships between variables, the ideal design was deemed to be quantitative in nature.

The study therefore adopted the quasi-experimental post-test research design. Choice of this design was informed by the fact that the proposed study was explanatory in nature and sought to establish whether variations in microfinance performance could be actually as a result of manipulations in loan portfolio management approaches employed and since the microfinance institutions already exist therefore, the issue of randomization did not exist. In line with observations by White and Sabarwal (2014), management of gross loan portfolio was measured by a pre-determined set of indicators. The researcher only tested whether the indicators in question achieved the intended objectives. Lack of random assignment of subjects therefore justified use of the quasi-experimental design.

3.2 Study Location
The study was conducted in deposit taking MFIs drawn from Uasin Gishu County. Uasin Gishu County is situated in the mid-west of Kenya’s Rift Valley and shares common borders with Trans Nzoia County to the North, Elgeyo Marakwet County to the East, Baringo County to the South East, Kericho County to the South, Nandi County to the South West and Kakamega County to the North West (http://www.kenya-information-guide.com). Uasin Gishu is a cosmopolitan county
covering an area of 3345.2 Km$^2$ and by the year, 2009 had a population of 894179 people (KNBS, 2009). Eldoret town is the largest town and administrative center of the county.

Choice of Uasin Gishu County for the study was based on the understanding that being an agrarian economy, the county has attracted many financial institutions hoping to capitalize on loan portfolio as a source of income from the many agricultural activities taking place. According to Association of Micro Finance Institutions sector report (AMFI, 2014), Uasin Gishu County had a total of fifteen MFIs, four of which are deposit taking and eleven are credit only MFIs. Choice of deposit taking MFIs for the proposed study was further informed by the large gross loan portfolio of Kshs. 1,572,813,444 which they held by 2014 (AMFI, 2014).

### 3.2.1 Target population

The study targeted branch managers and other senior officers of the four deposit taking MFIs in the region, Faulu Kenya, Kenya Women Finance Trust (KWFT), Rafiki and SMEP. Senior officers comprised of operations officers, credit officers, unit heads, and relations officers. The branch managers and senior officers were chosen because of the important role they play in the day to day operations of MFIs. Among the roles they play includes maintenance of healthy portfolios, determination of portfolio levels, conducting loan appraisals, preparing financial and credit reports, linking clients with MFIs, and advising clients on loan packages. On the basis of records drawn from the targeted MFIs, the study targeted 33 management staff.

<table>
<thead>
<tr>
<th>Category of Respondent</th>
<th>Number in Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Branch managers</td>
<td>4</td>
</tr>
<tr>
<td>Operation managers</td>
<td>4</td>
</tr>
<tr>
<td>Credit officers</td>
<td>4</td>
</tr>
</tbody>
</table>
3.3: Census

The study adopted census method. It was adopted to provide information that was used to draw conclusions about the whole population. A census is a study of every unit, everyone or everything, in a population. It is known as a complete enumeration, which means a complete count. A census provides a true measure of the population (no sampling error), benchmark data may be obtained for future studies and detailed information about small sub-groups within the population is more likely to be available. Since the population of the study was small (33), census was used to collect information from the entire population (Kothari, 2004).

3.4: Data Collection Procedures

The study relied mainly on primary data collected at first hand from the identified MFIs. Questionnaires were developed for purposes of gathering data from primary sources. Prior to data collection, permission was first sought from the university to gather data for the purposes of the study. The researcher applied for a permit to collect data from the National Council for Science, Technology and Innovation (NACOSTI). Finally, requests for visiting sampled firms to collect data were made to respective firms’ management teams.

3.4.1 Instruments

A questionnaire was designed specifically to collect information pertaining to their views on management of MFIs loan portfolio. The choice of questionnaires for officers was based on its ability to diversify information and also to be used over a large sample size (Kombo & Tromp, 2006). The questionnaire comprised of six sections consistent with the information required on
key variables. Section A focused on officers background characteristics. Section B sought data on the financial and social performance of respective MFIs. The next four sections focused on information relating to the four loan portfolio management objectives namely: accounting policies, credit policies and procedures, portfolio disclosure reporting, and portfolio monitoring. The questionnaire were self-administered and contained closed ended items. Responses to closed ended questions were elicited on a 5-point Likert scale with 1 signifying strong dis-agreement, 2dis-agreement, 3-moderate agreement, 4 –agreement, and 5-strong agreement.

3.4.2 Validity
Neuman (2007) defines validity in terms of the actual reality depicted by a construct. Consequently, validity is seen as a measure of truthfulness and shows how well a conceptualized idea about reality matches the actual reality. Two forms of validity were used to validate the quantitative instrument (senior officer’s questionnaire). The first form of validity was face validity, which according to Neuman (2007) is the judgment, made based on scientific approach on whether the indicator used measures the required construct. Consequently, the researcher sought the opinion and assistance of the assigned supervisors to ensure that on face value, the questionnaire appeared suitable both in design and structure and that it measured the required variables.

Content validity was then conducted. The researcher asked the supervisors and micro finance experts to critically examine the items measuring specific constructs with a view to ascertaining whether the full content pertaining to the variables is represented in the items and whether such content is justified with evidence from literature. With regards to the qualitative aspects of the study, authenticity of the findings were considered primal. This as noted by Neuman (2007) relates to the fairness, balance and honesty exhibited by respondents on topical issues. By use of branch managers’ interview schedule, the researcher hoped that branch managers were truthful by avoiding giving distorted accounts of portfolio management and micro finance performance
3.4.3. Reliability

Reliability is a measure of how dependable or consistent an instrument is in measuring the required construct (Neuman, 2007). The officer’s questionnaire incorporated closed-ended questions to facilitate proper capturing and analysis of the variables of the study. The reliability of the questionnaire was verified through examination of internal consistency of the portfolio management indicators, as well as those of the MFI performance indicators. This was achieved by computing Cronbach’s alpha coefficients on data that was collected through a pilot study of ten (10) officers from the non-participating credit only MFIs in Eldoret town.

3.5: Data Processing and Analysis

Data from the officers was first prepared and cleaned using descriptive statistics that included means, standard deviations, and standardized scores. Prior to descriptive statistics, exploratory factor analysis was performed by examining the correlation patterns between observed measure and the redundant measures were dropped from further analysis. Data was cleaned for missing values and outliers. In addition, data was tested for normality, linearity and homogeneity of variances, which are assumptions for regression analysis. Data was coded and entered into the Statistical Package for Social Science (SPSS) Ver.22.

Multiple regressions was run and used to test the formulated hypotheses in order to establish the effect of gross loan portfolio management practices on the performance of deposit taking micro financial organizations. Consequently, the following multiple regressions model was conceptualized based on the standardized regression coefficients.
Standardized regression coefficients represented by Beta ($\beta$) were noted to be useful for comparing the relative strength of predictors. Under this model, the constant in the regression assumes the value of zero (Neill, 2017).

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

Where:

- $Y$ = MFI performance (Dependent variable)
- $X_1$ = Accounting policies (independent variable)
- $X_2$ = Credit policies (independent variable)
- $X_3$ = Portfolio disclosure reporting (independent variable)
- $X_4$ = Portfolio monitoring (independent variable)
- $\beta_1, \beta_2, \beta_3, \beta_4$ = Regression coefficients
- $\varepsilon$ = Error term

However, multiple regression was based on many assumptions. The relationship between independent variable and dependent variable was assumed to be linear. Also, there was no multicollinearity in the data this implied that the predictors were not highly collated with one another. Values of the residuals were assumed to be independent and the variance of the residuals was constant. There was also an assumption that there was a normal distribution of the values of the residuals.

### 3.6: Ethical Considerations

Data collection was undertaken in consideration of ethical issues in social science inquiry. An introductory letter was prepared for purposes of seeking informed consent from potential respondents to participate in the study. Details revealing the purpose of the study and guarantee of anonymity and confidentiality were included in the letter. Anonymity was assured by concealing respondents’ identities and also ensuring that the information collected was not linked to the
respondent. The researcher took responsibility to protect all data gathered with the scope of the study assured confidentiality.
CHAPTER FOUR
DATA ANALYSIS, PRESENTATION AND DISCUSSIONS

4.1 Response Rate
The study targeted 33 management staff drawn from four deposit taking MFIs operating in the study area. The questionnaires were completely filled and returned. The overall response rate was therefore 100%, which was suitable for the requirements of the study (Mugenda and Mugenda, 2010).

Table 4.1: Response rate

<table>
<thead>
<tr>
<th>Category of Respondent</th>
<th>Number in Population</th>
<th>% Response rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Branch managers</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>Operation managers</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>Credit officers</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>Unit heads</td>
<td>8</td>
<td>24</td>
</tr>
<tr>
<td>Relation officers</td>
<td>13</td>
<td>40</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>33</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

4.2: Results of Validity and reliability of pilot testing

The reliability of the questionnaire was verified through examination of internal consistency of the portfolio management indicators, as well as those of the MFI performance indicators. This was achieved by computing Cronbach’s alpha coefficients on data that was collected through a pilot study of ten (10) officers from the non-participating credit only MFIs in Eldoret town. The instrument variables were found to be reliable and valid to be used to collect data for they scored as shown in table 4.2 below.
Table 4.2: Reliability test of variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Number of Items</th>
<th>Reliability coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting policies</td>
<td>10</td>
<td>0.844</td>
</tr>
</tbody>
</table>

4.2.1 Missing Value Analysis

Missing values are noted to be a common phenomenon in social science research (Masconi, Matsha, Echonffo-Tchengu, Rajit & Kengue, 2015). It is argued that whenever they arise, missing values often result in loss of statistical power required for making accurate inferences.

Missing values in the present study were examined with respect to cases. Results presented in Table 4.3 show that there were 7 cases with missing values. Cases 4, 8, 17, 19, 26 and 32 had 1 missing value each accounting for 2.0% of missing values. Case 12 had 2 missing values that accounted for 3.9%. All the cases had missing values below the recommended value of 5% were therefore retained (Tabachnick & Fidell, 2013).

Table 4.3: Missing Patterns (cases with missing values)

<table>
<thead>
<tr>
<th>Case</th>
<th># Missing</th>
<th>% Missing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4.2.2 Outliers
Outliers are defined as scores that differ markedly from others (Byrne, 2010). Outliers are categorized either as univariate in which case, extreme scores appear on single variables, or as multivariate outliers for which scores deviate from the centroid of all cases involving predictor variables (Aguinis, Gottfredson & Joo, 2013). Assessment of the presence of univariate outliers in the present study was done on all the four independent variables and the dependent variable. Scores drawn from each of these variables were standardized and then gauged against the interval [-3.0, 3.0] as suggested by Aguinis et al. (2013). A score was deemed an outlier if the standardized value fell outside this interval. The standardized scores shown in Table 4.4 confirm that data were devoid of univariate outliers.
4.3 Exploratory Factor Analysis

Exploratory factor analysis was informed by the desire to reduce the number of items measuring the study variables, and also to explore the underlying structure of the variables (Reio Jr. & Shuck, 2008).
Exploratory factor analysis is noted as an appropriate tool for reducing a large number of items into a few core items (Hair et al., 2010).

The Principal components Analysis (PCA) was consequently used to establish the factor structure in accounting policies; credit policies and procedure; portfolio disclosure; portfolio monitoring and control; and micro finance performance. The Kaiser criterion that requires factors with Eigen values above 1 was used. Under this criterion, the Kaiser–Meyer–Olkin (KMO) and Bartlett’s test of sphericity were used to examine sampling adequacy and completeness respectively. The KMO was expected to have a minimum value of 0.6, while Bartlett’s measure was required to be significant at the 5% level (Tabachnick & Fidell, 2013).

### 4.3.1 Factor Structure for Microfinance Performance

Microfinance performance was conceptualized as the dependent variable in the present study. Ten items were initially proposed to measure microfinance performance. PCA was performed in order to verify factor loadings upon which redundant items could be identified and omitted from further analysis. Table 4.5 revealed that the KMO value was 0.442, which was below the recommended value of 0.6 thereby raising questions on adequacy of sampling. Future studies could well look to factor in this point. The Bartlett’s test of sphericity however yielded a significant chi-square value of 69.612 (P<0.05) indicating that data was complete with respect to microfinance performance. Seven items loaded, highly on three factors and explained cumulatively, 54.420% of the variance in microfinance performance. Three factors were omitted from further analysis involving microfinance performance.
5: Unidimensionality of Microfinance Performance

<table>
<thead>
<tr>
<th>Variables and Scales</th>
<th>Loading</th>
<th>Eigen Values</th>
<th>Cumulative values</th>
<th>% Variance explained</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Factor 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This institution calculates operating cost ratio or cost per borrower</td>
<td>.721</td>
<td>2.177</td>
<td>21.773</td>
<td></td>
</tr>
<tr>
<td>The institution does not tolerate customers with persistent arrears</td>
<td>.670</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The institution regularly monitors non-performing loans</td>
<td>.807</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Factor 2</strong></td>
<td></td>
<td>1.850</td>
<td>40.273</td>
<td></td>
</tr>
<tr>
<td>This institution experiences a high rate of client turn over</td>
<td>.880</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This institution experiences a high rate of staff turn over</td>
<td>.872</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Factor 3</strong></td>
<td></td>
<td>1.415</td>
<td>54.420</td>
<td></td>
</tr>
<tr>
<td>Institution’s rapid growth strains existing systems</td>
<td>.749</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credit officers handle very large numbers of clients</td>
<td>.633</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kaiser–Meyer-Olkin MSA</td>
<td>.442</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bartlett’s Test of sphericity ($\chi^2 = 69.612$)</td>
<td>.011</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Microfinance performance

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization

4.3.2 Factor Structure of Financial Reports and Accounting Policies Variable

A total of ten items were initially proposed to measure accounting policies as practiced in deposit taking MFIs. The PCA results (table 4.6) revealed that sampling was inadequate although it provided for completeness in data for accounting policies (KMO = 0.423, $\chi^2 = 67.618$, P<0.05). Only six of the ten items loaded highly on three factors, and explained cumulatively, 54.175% of
the variance in accounting policies. The factor structure as initially proposed was not supported and only six items were retained to measure the variable.
Table 4.

6: Unidimensionality of accounting policies

<table>
<thead>
<tr>
<th>Variables and Scales</th>
<th>Loading</th>
<th>Eigen</th>
<th>Cumulative values</th>
<th>% Variance explained</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Accounting policies</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Factor 1</strong></td>
<td>2.022</td>
<td>20.221</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The institution's robust accounting systems are in portfolio reports</td>
<td>.614 reflected</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Institution's PAR reports are analyzed and by experts</td>
<td>.864 interpreted</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Factor 2</strong></td>
<td>1.889</td>
<td>39.113</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The institution books loan repayments before is received</td>
<td>.628 cash</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The institution has provisioning policies for loan classification</td>
<td>.742 classification</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Institution's financial statements documents policies</td>
<td>.749 policies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Factor 3</strong></td>
<td>1.506</td>
<td>54.175</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The institution's branch management always explains any discrepancy in the balances of reports</td>
<td>.685</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bartlett’s Test of sphericity ($X^2=67.618$)</td>
<td>.016</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kaiser –Meyer-Olkin MSA</td>
<td>.423</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization

**4.3.3 Factor Structure of Credit Policies Variable.**

Eleven items were initially proposed to measure credit policies used in deposit taking MFIs. PCA results displayed in Table 4.7 confirmed that sampling adequacy and completeness with respect to credit policies variable were achieved. The KMO measure was above 0.6 (0.607), and the Bartlett’s
The test of sphericity was significant ($\chi^2 = 88.953, P<0.05$). Only seven items loaded highly on three factors and explained cumulatively, 56.535% of the variance in credit policies. The factor structure of credit policies variable required only seven items. Four items were deemed redundant and were omitted from further analysis involving credit policies.

### 7: Unidimensionality of Credit Policies

#### Variables and Scales

<table>
<thead>
<tr>
<th>Factor</th>
<th>Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2.792</td>
</tr>
<tr>
<td>2</td>
<td>1.879</td>
</tr>
<tr>
<td>3</td>
<td>1.548</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Credit policies</th>
<th>Eigen values</th>
<th>Variance explained</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Factor 1</strong></td>
<td>2.792</td>
<td>25.380</td>
</tr>
<tr>
<td>The institution’s policy discourages multiple lending to individuals</td>
<td>.831</td>
<td></td>
</tr>
<tr>
<td>To determine the rate of loan increase the institution uses history of arrears</td>
<td>.792</td>
<td></td>
</tr>
<tr>
<td>There are specific guidelines to different loan products</td>
<td>.680</td>
<td></td>
</tr>
<tr>
<td><strong>Factor 2</strong></td>
<td>1.879</td>
<td>42.463</td>
</tr>
<tr>
<td>The institution entertains loan restructuring and renegotiation</td>
<td>.629</td>
<td></td>
</tr>
<tr>
<td>The compulsory savings reduces the loan amounts to borrowers</td>
<td>.673</td>
<td></td>
</tr>
<tr>
<td>The institution allows loan top up by defaulters</td>
<td>.771</td>
<td></td>
</tr>
<tr>
<td><strong>Factor 3</strong></td>
<td>1.548</td>
<td>56.535</td>
</tr>
<tr>
<td>There is reinforcement and accountability of credit officers by the institutions systems</td>
<td>.766</td>
<td></td>
</tr>
<tr>
<td>Kaiser –Meyer-Olkin MSA</td>
<td>.607</td>
<td></td>
</tr>
</tbody>
</table>

### Kaiser-Meyer-Olkin MSA

Variables and Scales

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization
4.3.4 Factor Structure of Portfolio Disclosure Reports Variable

Portfolio disclosure reporting was also conceptualized as an independent variable. Ten items were proposed to measure portfolio disclosure reports. PCA verified that sampling adequacy and completeness were achieved with respect to portfolio disclosure reports (KMO = 0.657, $\chi^2 = 95.602$, P<0.05). Six items were extracted and loaded highly on three factors explaining cumulatively, 54.426% of the variance in Portfolio disclosure (Table 4.8). Four items were found to be redundant and were omitted from further analysis.

8: Unidimensionality of Portfolio Disclosure Reports

<table>
<thead>
<tr>
<th>Variables and Scales</th>
<th>Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bartlett’s Test of sphericity ($\chi^2=95.602$)</td>
<td>.000</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization

4.3.5 Factor Structure of Portfolio monitoring and Control

Portfolio monitoring and control was the fourth and last variable used to measure gross loan portfolio management. Ten items were therefore proposed to measure portfolio monitoring and control. PCA results displayed in Table 4.9 confirmed that sampling was adequate and complete with regards to portfolio monitoring and control (KMO = 0.738, $\chi^2 = 199.934$, P<0.05). Out of the ten items proposed to measure portfolio monitoring and control, seven loaded highly on two
Table 4.

<table>
<thead>
<tr>
<th>Portfolio disclosure</th>
<th>Eigen values</th>
<th>Cumulative % Variance explained</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Factor 1</strong></td>
<td>2.232</td>
<td>22.318</td>
</tr>
<tr>
<td>This institution generates complete set of portfolio reports and statements quarterly</td>
<td>.702</td>
<td></td>
</tr>
<tr>
<td>The institution generates reports to disclose outstanding loans at the beginning and end of period</td>
<td>.844</td>
<td></td>
</tr>
<tr>
<td>Institution's investments are shown separately from interest and other income collected from borrowers</td>
<td>.627</td>
<td></td>
</tr>
<tr>
<td><strong>Factor 2</strong></td>
<td>1.806</td>
<td>40.378</td>
</tr>
<tr>
<td>This institution requires departments to submit accurate and timely report to management</td>
<td>.744</td>
<td></td>
</tr>
<tr>
<td>The institution's portfolio reports are clearly what it is</td>
<td>.834</td>
<td></td>
</tr>
<tr>
<td><strong>Factor 3</strong></td>
<td>1.405</td>
<td>54.426</td>
</tr>
<tr>
<td>The institution’s portfolio report show the extent of late payment on loans for the current period</td>
<td>.671</td>
<td></td>
</tr>
<tr>
<td>Kaiser–Meyer-Olkin MSA</td>
<td>.457</td>
<td></td>
</tr>
</tbody>
</table>

Three items were deemed redundant and were omitted from further analysis.

9: Unidimensionality of Portfolio Monitoring

Bartlett’s Test of sphericity ($\chi^2=199.934$) | .000

Variables and Scales | Loading

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization

4.4 Respondents Background Characteristics

MFIs management staff’s background characteristics were measured using gender, age, educational level, and experiences. The need to examine these particular background
Table 4.

<table>
<thead>
<tr>
<th>Eigen values</th>
<th>Cumulative % Variance explained</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portfolio monitoring</td>
<td></td>
</tr>
<tr>
<td><strong>Factor 1</strong></td>
<td>4.287 42.872</td>
</tr>
<tr>
<td>The institution uses legal means to collect defaulted loans</td>
<td>.919</td>
</tr>
<tr>
<td>The underperforming officers are held accountable when their results not optimal</td>
<td>.949</td>
</tr>
<tr>
<td>This institution understands its' clients payment behaviors depending on the loan products</td>
<td>.858</td>
</tr>
<tr>
<td>Institutions losses are as a result of fraud practices</td>
<td>.901</td>
</tr>
<tr>
<td>The institution empowers credit officers to collect late loan payments</td>
<td>.947</td>
</tr>
<tr>
<td><strong>Factor 2</strong></td>
<td>1.783 60.706</td>
</tr>
<tr>
<td>The institution's management sets targets to staff who deal with credits operations</td>
<td>.809</td>
</tr>
<tr>
<td>The institution carries out annual audits</td>
<td>.798</td>
</tr>
<tr>
<td>Kaiser –Meyer-Olkin MSA</td>
<td>.738</td>
</tr>
</tbody>
</table>

characteristics was influenced by previous findings that have highlighted their influence on firm performance (Agyeman & Ponniah, 2014; Hassan & Ogunkya, 2014).

4.4.1 Respondents Gender

Gender diversity has been found to have positive correlations with firm performance (Julizaerma & Zulkarnaim, 2012). It was therefore prudent to examine gender distribution among the sampled management staff. Results of the respondents’ gender distribution analysis revealed that
the sample consisted of slightly more male (57.6%) than female (42.4%) managers (Table 4.10). The distribution represented a good proportion of gender diversity among microfinance institutions managers.

**Table 4.10: Respondents’ Gender**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>19</td>
<td>57.6</td>
</tr>
<tr>
<td>Female</td>
<td>14</td>
<td>42.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>33</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

### 4.4.2 Age of Respondents

Analysis of age distribution of the sampled managers was informed by findings, which show that age diversity among employees’ influences firm performance (M. Pervan, I. Pervan & Curak, 2017). Results of the descriptive analysis of managers age distribution presented in Table 4.11 indicated that there was diversity in manager’s age distribution. A majority of the managers (54.5%) was in the age bracket 30-39 years; 36.4% were in the bracket 20-29 years; while 9.1% were aged above 40 years. The bottom line is that deposit taking MFIs diversify manager’s age by complementing youth with experience.

**Table 4.11: Respondents’ Age Distribution**

<table>
<thead>
<tr>
<th>Age Bracket</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-29 years</td>
<td>12</td>
<td>36.4</td>
</tr>
<tr>
<td>30-40 years</td>
<td>18</td>
<td>54.5</td>
</tr>
<tr>
<td>Above 40 years</td>
<td>3</td>
<td>9.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>33</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>
4.4.3 Respondents Level of Education

Education is noted to impact firm performance indirectly, by enabling employees to be creative, innovative and team players (Goetsch & Davies, 2006 as cited in Chimwani et al., 2014).

Analysis of respondents’ level of education revealed that most of the sampled managers (51.5%) were master’s degree holders. PhD holders were 36.4%; while first degree holders were only 12.1% (Table 4.12). The implication of these results is that deposit taking MFIs management staff has the relevant education required to perform their tasks.

Table 4.12: Respondents’ Education level

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>First degree</td>
<td>4</td>
</tr>
<tr>
<td>Masters</td>
<td>17</td>
</tr>
<tr>
<td>PhD</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>33</td>
</tr>
</tbody>
</table>

4.4.4 Respondents Experience

Employee working experience is noted to be crucial to the functionalities of any department (Braxton, 2008). Consequently, the researcher deemed it fit to examine the distribution of managers working experience. Study findings presented in Table 4.13 revealed that most managers (66.7%) had an experience of 2 to 5 years in deposit taking MFIs. Employees with an experience of 6-9 years were 18.2% while 3% of the employees had an experience of over 10 years (Table 4.12).
Table 4.13: Respondents’ Experience working in respective MFIs

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 1 year</td>
<td>4</td>
</tr>
<tr>
<td>2-5 years</td>
<td>22</td>
</tr>
<tr>
<td>6-9 years</td>
<td>6</td>
</tr>
<tr>
<td>over 10 years</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>33</strong></td>
</tr>
</tbody>
</table>

The meaning of these results is that management staff of deposit taking MFIs mostly work in their institutions for between 2 to 5 years. The essence then could be that there is a high turnover in MFIs involving management staff.

4.5 Descriptive Analysis of Study Variables

The extent to which the study variables are employed in the sampled deposit taking MFIs was examined using descriptive statistics and in particular the means and standard deviations. The mean scores were used to explore typical responses among management staff with regards to the various variables under study. Standard deviations were on the other hand used to connote variations in the typical responses among the management staff, being an indication of consistency in response. The mean response score was interpreted on the following threshold:

- M<1.5: strongly disagree;
- 1.5< M ≤ 2.5: disagree;
- 2.5< M ≤ 3.5: moderately agree;
- 3.5< M ≤ 4.5: agree;
- M>4.5: strongly agree.

4.5.1 Descriptive Analysis of the Micro-Finance Performance.

Micro finance performance was conceptualized as the dependent variable. Buoyed by the understanding that MFIs have a responsibility to reach the poor, and also to remain viable in terms of financial sustainability (Murdoch as cited in Mersland & Strom, 2014), it was necessary to
explore respondents’ perceptions with regards to prevailing levels of performance in deposit taking MFIs. Ten items were initially proposed to measure microfinance performance. Seven items were however extracted by factor analysis and were used to measure MFI performance.

Results of the descriptive analysis of respondents’ views on performance of deposit taking MFIs indicate that management staff of deposit taking MFIs had the opinion that the institutions were performing as well (Table 4.14). The overall response score indicated a consistent agreement among the respondents with regards to MFIs performance (M=3.88, SD=0.331). Indeed, the percentage response scores reveal that on the overall, 87.9% of the respondents agreed that MFIs in the study area were performing well, while the remaining 12.1% moderately agreed.

Monitoring non-performing loans (M=4.12, SD=0.696); non toleration of customers with persistent arrears (M=4.09, SD=0.843); and calculation of operating cost ratio /cost per borrower (M=4.06, SD=0.827) were some of the performance aspects that received high agreements among respondents.
Table 4.14: Descriptive Statistics of MFI Performance

<table>
<thead>
<tr>
<th>Items</th>
<th>SD</th>
<th>D</th>
<th>MA</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>This institution calculates operating cost ratio or</td>
<td>N</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>cost per borrower</td>
<td>0.0</td>
<td>0</td>
<td>3.0</td>
<td>7</td>
<td>21.2</td>
</tr>
<tr>
<td>The institution does not tolerate customers with persistent arrears</td>
<td>1</td>
<td>3.0</td>
<td>0</td>
<td>0.0</td>
<td>4</td>
</tr>
<tr>
<td>Institution’s rapid growth strains existing systems</td>
<td>0.0</td>
<td>1</td>
<td>3.0</td>
<td>6</td>
<td>18.2</td>
</tr>
<tr>
<td>This institution regularly monitors nonperforming loans</td>
<td>0.0</td>
<td>1</td>
<td>3.0</td>
<td>3</td>
<td>9.1</td>
</tr>
<tr>
<td>This institution regularly appraises number of active loan borrowers</td>
<td>0.0</td>
<td>0</td>
<td>0</td>
<td>0.0</td>
<td>10</td>
</tr>
<tr>
<td>against average loan balance per borrower</td>
<td>0.0</td>
<td>3</td>
<td>9.1</td>
<td>12</td>
<td>36.4</td>
</tr>
<tr>
<td>This institution gauges its loan portfolio relative</td>
<td>2</td>
<td>6.1</td>
<td>0</td>
<td>0.0</td>
<td>13</td>
</tr>
<tr>
<td>to the breadth of outreach</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This institution experiences a high rate of staff turnover</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall Response</td>
<td>0.0</td>
<td>0</td>
<td>0</td>
<td>0.0</td>
<td>4</td>
</tr>
</tbody>
</table>

The implication of these results is that deposit taking MFIs in Uasin Gishu County are keen on sustaining their performance by addressing aspects related to performance. This has definitely gone down well with most of the management staff, which tended to agree that the institutions have been keen on key indicators that drive performance in terms of financial sustainability, efficiency, portfolio quality and outreach.

Results showing that deposit taking MFIs regularly monitor non-performing loans and calculates operating cost ratio, points to an endeavor among them to meet their financial and social needs.

This is consistent with Ngo’s (2012) assertion that MFIs ought to focus more on their ability to cut costs so as to meet financial and social obligations. The diversity in indicators measuring deposit
taking MFIs performance bodes well with the financial and social obligations of MFIs and are in line with contentions by Rosenberg (as cited in Ngo, 2012), that MFI performance ought to focus on financial and social services.

4.5.2 Descriptive Analysis of Accounting Policies

Accounting policies were conceptualized as the first measures of Gross loan portfolio management. Focus on accounting policies was informed by importance of accounting policy adoption in preparation of financial statements (Alayemi, 2015). It was therefore prudent to examine financial and accounting policies as practiced in deposit taking MFIs.

Ten items were initially proposed to measure accounting policies. PCA extracted six items that were eventually used. Respondents were asked to indicate their agreement on selected practices that reflect accounting policies. The overall mean response score and associated standard deviation (M=3.76, SD=0.435) indicated a consistent agreement among respondents regarding deposit taking MFIs endeavors to comply with accounting policies (Table 4.15). The overall response scores in proportions vindicated the mean scores by showing that 75.8% of the respondents agreed that MFIs comply with financial reports and accounting policies, while the remaining 24.2% moderately agreed. Documenting policies and procedures in financial statements (M=3.76, SD=0.792); booking loan repayment before cash is received (M=3.76, SD=1.062); analyzing and interpreting PAR reports (M=3.67, SD=1.021); and availability of positioning policies for loan classification (M=3.67, SD = 0.736) were particularly perceived as the main accounting policies initiatives on board judging from levels of agreement among respondents.
Table 4.15: Descriptive Statistics of Accounting Policies

<table>
<thead>
<tr>
<th>Items</th>
<th>SD</th>
<th>D</th>
<th>MA</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>The institution books loans before cash is received</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The institution robust accounting systems are reflected in portfolio reports</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The institution's branch management always explains any discrepancy in the balance of reports</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The institution PAR reports are analyzed and interpreted by experts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The institution's has provisioning for loan classification</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The institutions’ financial statements documents</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall Response</td>
<td>0</td>
<td>0</td>
<td>8</td>
<td>24.2</td>
<td>25</td>
</tr>
</tbody>
</table>

The significance of these results is that deposit taking MFIs in Uasin Gishu County recognize the need to update and maintain detailed financial records and accounting policies. Most of the institutions have as a consequence put in place mechanisms, which are appreciated by the management staff. Adoption of accounting policies and their regular update doubtlessly augers well with the management of gross loan portfolio. It is argued that reduction of contracting costs is inherent in accounting policy adoption (Alayemi, 2015). Besides, adoption of policies is posited to have an influence on financial disclosure which itself affects positively on operational and financial performance of MFIs (Quays, 2013).
4.5.3 Descriptive Analysis of Credit Policies

Sound Credit Management has been found necessary for MFIs to maintain stability (Kagoyire & Shinkla, 2016). It is argued that credit risk appraisal correlates positively with financial performance (Shieler, Emenike & Amu, 2017). Consequently, credit policies and procedures as measures of gross loan portfolio management were measured using seven items extracted from an initial eleven items. The overall mean response score and associated standard deviation (M=3.78, SD=0.414) indicated that management staff tended to perceive highly credit policies used. On the basis of the percentage response scores, 78.8% of the respondents agreed that credit policies were in place within the MFIs and that they were being used as required (Table 4.16). However, 21.2% of the respondents moderately agreed with the presence and use of credit policies in deposit taking MFIs in Uasin Gishu County.

Among Key credit policy practices which the management staff agreed that deposit taking MFIs have implemented included; allowing loan top up by defaulters (M=4.18, SD=0.635); discouraging multiple lending to individuals (M=4.06, SD=0.899); requiring compulsory savings among borrowers (M=4.03, SD=0.810); and using history of arrears to compute loan increase (M=4.00, SD=0.968).

Table 4.16: Descriptive Statistics of Credit Policies

<table>
<thead>
<tr>
<th>Items</th>
<th>SD</th>
<th>D</th>
<th>MA</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>n %</td>
<td>n %</td>
<td>N %</td>
<td>n %</td>
<td>n %</td>
<td>M</td>
</tr>
<tr>
<td>The institution’s policy discourages lending</td>
<td>0 0.0 3 9.1 3 9.1 16 48.5 11 33.3 4.03 multiple</td>
<td>.810</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To determine the rate of loan increase, the institution uses history</td>
<td>0 0.0 3 9.1 3 9.1 16 48.5 11 33.3 4.06 of arrear</td>
<td>.899</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There is reinforcement and...</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
accountability of credit officers by 39.1 0 0.0 13 39.4 6 18.2 11 33.3 3.67 the institution’ 1.216 systems
The institution entertains loan 6 18.2 4 12.1 9 27.3 11 33.3 3 9.1 1.262
3.03 restructuring and renegotiation
The compulsory savings reduces 0 0 0 1 3.0 7 21.2 15 45.5 10 30.3 4.03 the loan 0.810
amounts to borrowers
The institution allows loan top up 0 0 0 0 0 4 12.1 19 57.6 10 30.3 4.18 by defaulters
There are specific guidelines to different loan products in this 4 12.1 0 0.0 14 42.4 12 36.4 3 9.1 1.075
3.30 institution Overall Response 0 0.0 0.0 7 21.2 26 78.8 0 0.0 3.78 .414

These results clearly point to the fact that deposit taking MFIs in Uasin Gishu County have taken
cognizance of the need for sound credit management in order to maintain stability (Kagoyire &
Shukla, 2016), and have as a result put in place credit policies to oversee sound credit management
as a precursor to prudent gross portfolio management.

The provision of policy guidelines to oversee sound credit management in deposit taking MFIs in
Uasin Gishu County no doubt portends well for these institutions efforts to achieve their financial
and outreach aspirations. Indeed, risk identification, monitoring, assessment, and analysis have
been found to inform credit risk management (Kahu & Kiawa, 2015). By putting in place policy
guidelines that enhance these four procedures, deposit taking MFIs in Uasin Gishu are definitely
headed in the right direction in terms of performance. Moronya et al. (2016) point to credit risk
management encompassing credit policy, client appraisal and credit monitoring as a predictor of
financial performance among SACCOs.
4.5.4 Descriptive Analysis of Portfolio Disclosure Reports

Focus on portfolio disclosure reports as an indicator for gross loan portfolio management was buoyed by assertions that disclosure statements are integral to loan portfolio management (Sha’ven, 2015). Portfolio disclosure reports were therefore measured using six items extracted from the proposed ten items. Respondents were asked to indicate their level of agreement on whether the MFI observes practices reflected in the six items.

The overall mean response score (Table 4.17) together with the associated standard deviation (M=3.76, SD=0.435) indicated that respondents were consistent in agreeing that portfolio disclosure is a practice treated keenly by the respective institutions. Moreover, 75.8% of the respondents agreed to the use of portfolio disclosure reports in the institutions, while 24.2% moderately agreed.

Quarterly generation of portfolio reports (M=4.00, SD=0.661); clarity of portfolio reports that reflect true positions (M=3.85, SD=1.031); timely submission of reports (M=3.73, SD=0.761); and ability of portfolio reports to show late payments on loans (M=3.61, SD=0.966) were portfolio disclosure practices that were more appealing to the management staff as reflected in their high agreements.

Table 4.17: Descriptive Statistics of Portfolio Disclosure Reports

<table>
<thead>
<tr>
<th>Items</th>
<th>SD</th>
<th>D</th>
<th>MA</th>
<th>A</th>
<th>SA</th>
<th>n</th>
<th>%</th>
<th>n %</th>
</tr>
</thead>
<tbody>
<tr>
<td>This institution generates complete set of</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The institution requires departments to submit accurate and timely reports to management. This institution’s portfolio reports are clear picture of what the institution is in terms of performance. The institution generates reports to disclose outstanding loans at the beginning and end of period. The institution’s portfolio reports show the extent of late payment on loans for the current period. Institution's investments are shown separately from interest and other income collected from borrowers.

**Overall Response**

The implication of these results is that deposit taking MFI s in Uasin Gishu County are managing gross loan portfolio well in terms of portfolio disclosure. This is bound to oversee successful delivery of both financial and outreach service expectations of these institutions. Indeed, evidence shows that better disclosure impacts significantly on MFI s operational performance, leading to increased financial performance (Quayes & Hassan, 2014). Besides, it is argued that disclosure reports bring transparency in operations and portends good fortunes (Beisland et al., 2014).

### 4.5.5 Descriptive Analysis of Portfolio Monitoring

Portfolio monitoring is noted to focus on among others; delinquency, payment performance, internal controls, fraud, and staff incentives (Christen & Flannigan, 2009). It is argued that delinquent loans for instance, affect negatively on both interest rate and net profit, justifying the need to monitor such loans (Addai & Chengyi, 2015). Examination of portfolio monitoring and
control among deposit taking MFIs in Uasin Gishu County was conducted using seven items extracted by PCA from the proposed ten items.

The overall score ($M = 4.06$, $SD = 0.659$) shown in Table 4.18 revealed high agreements among respondents with monitoring and control initiatives undertaken to manage gross portfolio. A big proportion of respondents (72.7%) agreed that portfolio monitoring and control mechanisms are used in loan portfolio management endeavors, while 27.3% moderately agreed. All in all, respondents were particularly impressed with institution’s desire to understand clients payment behaviour through loan products ($M=4.54$, $SD=0.602$); holding underperforming officers accountable ($M=4.52$, $SD=0.500$); use of legal channels to collect defaulted loans ($M=4.45$, $SD=0.515$); and recognition that losses are a result of fraud practices ($M= 4.39$, $SD= 0.749$).

Table 4.18: Descriptive Statistics of Portfolio Monitoring

<table>
<thead>
<tr>
<th>Items</th>
<th>SD</th>
<th>D</th>
<th>MA</th>
<th>A</th>
<th>SA</th>
<th>n</th>
<th>%</th>
<th>n</th>
<th>%</th>
<th>n</th>
<th>%</th>
<th>n</th>
<th>%</th>
<th>n</th>
<th>%</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>The institution's management sets targets to staff who deal with credits operations</td>
<td>1 3.0 2 6.1 12 36.4 13 39.4 5 15.2 3.58 .936</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The institution uses legal means to collect defaulted loans</td>
<td>0 0.0 0 0.0 0 0.0 18 54.5 15 45.5 4.45 .506</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The underperforming officers are held accountable when their results are not optimal</td>
<td>0 0.0 0 0.0 0 0.0 16 48.5 17 51.5 4.52 .508</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The institution understands it’s clients payment behaviors depending on the loan products</td>
<td>0 0.0 0 0.0 2 6.1 12 36.4 19 57.6 4.52 .619</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Institutions losses are as a result of fraud practices</td>
<td>0 0.0 0 0.0 5 15.2 10 30.3 18 54.5 4.39 .747</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

64
The institution empowers credit officers to collect late loan payments.

**Overall Response**

These results showing satisfactory monitoring and control in deposit taking MFIs in Uasin Gishu County are significant in the sense that they provide the motivation for prudent management of gross loan portfolio. Evidence shows that regulation affects positively on microfinance performance (Ndambu, 2011) which goes on to justify the need for monitoring and control.

### 4.6 Inferential Analysis Results

Inferential analyses focused on examining the direct effects of gross loan portfolio management practices on the performance of deposit taking microfinance institutions. Simple regression analyses were therefore used to establish the effects of the gross loan portfolio management variables on microfinance performance. Four hypotheses were therefore formulated with regards to the postulated relationships between gross loan portfolio management variables and performance of deposit taking MFIs. Prior to testing the posited hypotheses, assumptions of multiple correlations were first tested.

#### 4.6.1 Testing Assumptions of Multiple Regression

Multiple regressions, key inferential statistics used in the present study expected certain key assumptions to be satisfied (Tabachnick & Fidell, 2013). Data were therefore examined for the following assumptions of multiple regressions: normality, linearity, homogeneity of variances, autocorrelation, and multi-collinearity.
4.6.1.1 Testing for Normality Assumption

Normality of data distribution was tested for all variables measuring gross loan portfolio management practices, as well as for the microfinance performance variable. The Kolmogorov–Smirnov statistics were used to inspect normality of the variables. Choice of the Kolmogorov–Smirnov statistics was informed by small sample size of respondents (Tabachnick & Fidell, 2013). A non-significant value of the Kolmogorov-Smirnov with a p-value above 0.05 was deemed to signify normality. Results presented in Table 4.19 indicate that data were normally distributed across all the five variables, all the Kolmogorov – Smirnov statistics were significant at the 5% level.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Statistic</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microfinance performance</td>
<td>.125</td>
<td>33</td>
<td>.200*</td>
</tr>
<tr>
<td>Accounting policies</td>
<td>.133</td>
<td>33</td>
<td>.151</td>
</tr>
<tr>
<td>Credit policies</td>
<td>.150</td>
<td>33</td>
<td>.058</td>
</tr>
<tr>
<td>Portfolio disclosure</td>
<td>.136</td>
<td>33</td>
<td>.124</td>
</tr>
<tr>
<td>Portfolio monitoring</td>
<td>.147</td>
<td>33</td>
<td>.068</td>
</tr>
</tbody>
</table>

4.6.1.2 Testing for Linearity

Multiple regressions analysis assumes that a straight line relationship exists between the variables to be regressed (Tabachnick & Fidell, 2013). Pearson’s correlation coefficients were used to examine existence of linearity among variables. Results displayed in Table 4.20 indicate that linearity requirements were met. There were positive correlations between each of the gross portfolio management variables and micro-finance performance, and also among the portfolio management variables themselves.
Table 4.20: Linearity test results

<table>
<thead>
<tr>
<th></th>
<th>Accounting policies</th>
<th>Credit policies</th>
<th>Portfolio disclosure</th>
<th>Portfolio monitoring</th>
<th>Microfinance performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting policies</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credit policies</td>
<td>.734**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Portfolio disclosure</td>
<td>.664**</td>
<td>.733**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Portfolio monitoring</td>
<td>.402*</td>
<td>.557**</td>
<td>.576**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Microfinance</td>
<td>.557**</td>
<td>.775**</td>
<td>.810**</td>
<td>.737**</td>
<td>1</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

4.6.1.3 Testing Homogeneity of variances

Multiple regressions assume that there is uniform variability in scores of the dependent variable as the independent variables are manipulated (Tabachnick & Fidell, 2013). Homogeneity of variances was tested using Levene statistics conducted across the gross loan portfolio management variables with respect to microfinance performance. The test examined whether variance of MFI performance was the same across the four gross loan portfolio management variables. It was expected that for variances to be homogeneous, none of the Levene statistics would be significant at the 5% level. Results (Table 4.21) revealed that the Levene statistics for all the four variables were indeed not significant. The homogeneity of variances assumption was sustained.

Table 4.21: Homogeneity of Variances test results
4.6.1.4 Testing Autocorrelation

Multiple regressions also assume that regression residuals are independent. Consequently, autocorrelation examines existence of correlation among regression residuals (Tabachnick & Fidell, 2013). The Durbin–Watson statistic was used to test independence of regression residuals. The Durbin–Watson statistic had a value of 2.060 (Table 4.22), which indicated that regression residuals for the present study were uncorrelated.

<table>
<thead>
<tr>
<th>Model</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.13649</td>
<td>2.060</td>
</tr>
</tbody>
</table>

b. Dependent Variable: Microfinance performance

4.6.1.5 Testing for the Presence of Multicollinearity

Multicollinearity occurs when predictor variables have high correlations among themselves (Vatchera, Lee, McCormick & Rahbar, 2016). It is argued that Multicollinearity can lead to unstable and biased standard errors which could result in unrealistic and untenable interpretations of findings. Presence of multi-collinearity was tested using Variance Inflation Factors (VIF), which as noted by Tabachnick & Fidell, (2013), assesses the increase in variance of estimated regression coefficients in case of correlations among predictors. On the basis of suggestions by Ringle, Sarstedt and Schlettgen (2014), the threshold for existence of multi-collinearity was set at a minimum value of 5. Consequently, any VIF value greater than 5 was deemed to indicate...
presence of Multicollinearity. Results presented in Table 4.23 show that there was no threat of Multicollinearity (All VIF values were below 5).

<table>
<thead>
<tr>
<th>Model</th>
<th>Collinearity Statistics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tolerance</td>
<td>VIF</td>
</tr>
<tr>
<td>1 Accounting policies</td>
<td>.423</td>
<td>2.365</td>
</tr>
<tr>
<td>Credit policies</td>
<td>.329</td>
<td>3.035</td>
</tr>
<tr>
<td>Portfolio disclosure</td>
<td>.386</td>
<td>2.589</td>
</tr>
<tr>
<td>Portfolio monitoring</td>
<td>.622</td>
<td>1.608</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Microfinance performance

4.6.2 Testing Hypotheses

4.6.2.1 H01 testing

Hypothesis H01 posited that accounting policies have no statistically significant effect on performance of despot taking MFIs in Uasin Gishu County. To test this hypothesis, the MFI performance variable was regressed onto the accounting policies variable. The decision rule for testing the hypothesis was as follows:

1. Reject H0 if p<0.05
2. Do not reject otherwise

The model summary results (Table 4.24) confirmed that assuming that all financial reports and accounting policies explain the variation in microfinance performance, then they accounted for 31.1% of the variance in microfinance performance (R-square = 0.311). However, the adjusted R-square value of 0.288 confirms that actual effect of financial reports and accounting policies on microfinance performance accounted for up to 28.8% of the variance in microfinance performance.
Table 4.24: Accounting policies regression model summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.557(^a)</td>
<td>.311</td>
<td>.288</td>
<td>.24759</td>
<td>1.912</td>
</tr>
</tbody>
</table>

\(^a\) Predictors: (Constant), Financial Reporting and Accounting policies
\(^b\) Dependent Variable: Microfinance Performance

The ANOVA results (Table 4.25) further affirmed that the conceptualized simple regression model of microfinance performance on financial reporting and accounting policies was statistically viable. At least one of the regression coefficients was different from zero ($F_{1,31} = 13.965, p<0.05$).

Table 4.25: Goodness of fit for the Accounting policies simple regression model

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
</table>
| 1     | Regression     | .856| 1           | .856  | 13.965| .001\(^b\)  
|      | Residual       | 1.900| 31          | .061  |       |
| Total |                 | 2.756| 32          |       |       |

\(^a\) Dependent Variable: Microfinance Performance
\(^b\) Predictors: (Constant), Financial Reporting and Accounting policies

The p value for the regression coefficient associated with financial reporting and accounting policies was 0.001 which was below the threshold of 0.05 (Table 4.26). The hypothesis that financial reporting and accounting policies have no statistically significant effect on the performance of deposit taking MFIs was therefore rejected. Financial reporting and accounting policies had a positive and significant effect on the performance of deposit taking firms in Uasin Gishu County ($\beta = 0.557, p<0.05$).
Table 4.26: Simple linear regression coefficient of MFI performance on accounting policies

<table>
<thead>
<tr>
<th>Model</th>
<th>Coefficients</th>
<th>Standardized</th>
<th>Unstandardized</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>1.807</td>
<td>.552</td>
<td></td>
<td>3.274</td>
<td>.003</td>
</tr>
<tr>
<td>Accounting</td>
<td>.566</td>
<td>.151</td>
<td>.557</td>
<td>3.737</td>
<td>.001</td>
</tr>
<tr>
<td>policies</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Microfinance Performance

The implication of these results is that accounting policies adapted as a measure of gross loan portfolio management impacts on the performance of the respective MFI. The significance of the regression coefficient is that an increase of 1 standard deviation in adoption of accounting policies leads to an increase of 0.557 standard deviations in the performance of deposit taking MFIs.

The result clearly underscores the fact that adoption and maintenance of financial records and accounting policies is a key element of gross loan portfolio management, and has potential to lead to improved performance in the MFIs. Indeed, this finding supports a plethora of other findings. Oyoo (2014) for instance, established that internal control achieved by way of accounting policies related positively with performance of MFIs. Sarkodie et al. (2015) on the other hand found out that accounting ratio, which acts as a proxy of accounting policies significantly predicted MFI survival. Ikpefan et al. (2016) focused more on human capital in the accounting policies to show that human resource accounting significantly affects performance of microfinance banks.

The present study therefore strengthens the need for accounting policies as elements that can help the management of gross loan portfolio in order to result in improved performance among MFIs.
A key contribution of this study is perhaps the fact that the impact of accounting policies can now be examined from the context of deposit taking MFIs.

The study also determined that deposit taking MFIs, in Uasin Gishu County have adopted accounting policies, which are updated regularly. Considering the finding that accounting policies impact positively on performance of MFIs, there is no doubt that MFIs in Uasin Gishu are bound to perform well. Compliance with accounting policies and financial reports is a facet of gross loan portfolio management that brings immense potential to the institutions. Previous studies have documented the potential financial reports and accounting policies have for predicting MFI performance (Alayemi, 2015; Quays, 2013).

4.6.2.2. H0 test

Hypothesis H02 claimed that credit policies have no significant effect on the performance of deposit taking MFIs in Uasin Gishu County. To test this claim, a regression of MFI performance on credit policies and procedures was conducted. The decision rule for testing the hypothesis was as follows:

1. Reject H0 if p<0.05
2. Do not reject otherwise

The model summary (Table 4.27) highlights the fact that credit policies and procedures had direct effects on MFI performance and accounted for up to 60% (R Square = 0.600) of the variance in the performance of deposit taking MFIs. However, credit policies and procedures actually accounted for up to 58.7% of the variance in microfinance performance (Adjusted R square = 0.587).
Table 4.27: Credit Policies Simple Regression Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.775a</td>
<td>.601</td>
<td>.587</td>
<td>.18856</td>
<td>2.187</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Credit policies and procedures  
b. Dependent Variable: Microfinance performance

The ANOVA output (Table 4.28) confirmed that the conceptualized simple regression model of microfinance performance on credit policies and procedures was a good fit to the data. At least one of the regression coefficients was different from zero ($F_{1, 31} = 46.524, p<0.05$).

Table 4.28: Goodness of fit for the Credit Policies Simple Regression Model

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Regression</td>
<td>1.654</td>
<td>1</td>
<td>1.654</td>
<td>46.524</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>1.102</td>
<td>31</td>
<td>.036</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2.756</td>
<td>32</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Microfinance Performance  
b. Predictors: (Constant),

The regression weight (coefficient) associated with credit policies and procedures, and provided in Table 4.29 had a p-value of 0.000, much less than the 0.05 threshold. The hypothesis was therefore rejected. It affirms that credit policies and procedures positively and significantly predict the performance of deposit taking MFIs in Uasin Gishu County ($\beta = 0.775, p<0.05$). The regression weight value of 0.775 implies that an increase of 1 standard deviation in the management of credit policies and procedures was likely to lead to an increase of 0.775 standard deviations in the performance of deposit taking MFIs.
The results confirm that management of credit policies and procedures remains a critical element of gross loan portfolio management. By managing credit policies and procedures, credit taking MFIs have a chance to improve their performance. Indeed, the finding that credit policies and procedures positively and significantly affects performance of deposit taking MFIs is consistent with findings reported by other studies in extant literature, and adds to existing literature from a deposit taking MFI context.

Shieler et al., (2017) for instance argue that credit risk identification and appraisal correlate positively with financial performance. Although Shieler and colleagues focus on financial performance, it is important to note that the present study examines MFI performance from a broader perspective that encompasses both financial and outreach services.

Moreover, deposit taking MFIs in Uasin Gishu County have shown a willingness to have sound credit management as a way of ensuring stability (Kagoyire & Shukla, 2012). Consequently, most of them have put in place measures such as risk identification, monitoring, assessment and analysis, ostensibly to manage credit risk. This is definitely a step in the right direction, and consistent with other findings (Kahn & Kiawa, 2015; Moronya et al., 2016).
4.6.2.3 H03 test

**Hypothesis H03** postulated that portfolio disclosure reports have no significant effect on the performance of deposit taking MFIs in Uasin Gishu County. MFI performance was therefore regressed on portfolio disclosure reports. The decision rule for testing the hypothesis was as follows:

1. Reject H0 if p<0.05
2. Do not reject otherwise

The regression model summary (Table 4.30) revealed that portfolio disclosure reports have potential to explain up to 65.7% (R square = 0.657) of the variance in microfinance performance. However, they actually explained up to 64.5% (Adjusted R square= 0.645) of the variance in microfinance performance.

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.810a</td>
<td>.656</td>
<td>.645</td>
<td>1.7475</td>
<td>1.728</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Portfolio disclosure reports
b. Dependent Variable: Microfinance performance

The ANOVA results (Table 4.31) further affirmed that the conceptualized simple regression model of microfinance performance on portfolio disclosure reports was a fitting model to the given data. At least one of the regression coefficients was different from zero (F1, 31 = 59.261, p<0.05).
Table 4.31 Goodness of Fit for the Portfolio Disclosure Reports Simple Regression Model

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Regression</td>
<td>1.810</td>
<td>1</td>
<td>1.810</td>
<td>59.261</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>.947</td>
<td>31</td>
<td>.031</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2.756</td>
<td>32</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Microfinance performance
b. Predictors: (Constant), Portfolio Disclosure Reports

In addition, the regression coefficient associated with portfolio disclosure reports had a p-value of 0.000 (Table 4.32). The hypothesis was rejected indicating that portfolio disclosure positively and significantly predicted the performance of deposit taking MFIs ($\beta = 0.810$, $p<0.05$). The implication is that increasing management of portfolio disclosure reports by 1 standard deviation was likely to occasion an increase of 0.810 standard deviations in the performance of deposit taking MFIs.

Table 4.32: Simple Linear Regression Coefficient of MFI Performance on Portfolio Disclosure Reports

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>1.190</td>
<td>.349</td>
</tr>
<tr>
<td>Portfolio disclosure reports</td>
<td>.723</td>
<td>.094</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Microfinance performance

The finding that portfolio disclosure reports positively and significantly impacts the performance of deposit taking MFIs in Uasin Gishu County lends credence to other findings in existing literature. Previous findings have shown that better disclosure of portfolio has had a significant
effect on MFI operational performance and this has translated into improved financial performance (Quayes & Hassan, 2014). In addition, Beisland et al. (2014) argue that disclosure is an important aspect of transparency, and which has implications on the stability of MFIs.

The finding showing that deposit taking MFIs treat portfolio disclosures keenly resonates with previous studies that have gone on to show that such disclosures are bound to lead to increased financial performance among these institutions (Quayes & Hassan, 2014). Through such disclosures, it is envisaged that operations in deposit taking MFIs will be more transparent, and should be the panacea to improved performance (Beisland et al., 2014). The finding showing high levels of portfolio monitoring and control among the deposit taking MFIs in Uasin Gishu County is consistent with findings by Ndambu, (2011), and places these institutions on course for good performance since monitoring and control positively and significantly predict MFI performance.

4.6.2.4 H₀₄ test
Hypothesis H₀₄ stated that portfolio monitoring has no significant effect on the performance of deposit taking microfinance institutions in Uasin Gishu County. To test this hypothesis, MFI performance was regressed on portfolio monitoring and control. The decision rule for testing the hypothesis was as follows:

1. Reject H₀ if p<0.05
2. Do not reject otherwise
The model summary results (Table 4.33) confirmed that portfolio monitoring and control could account for 54.4% of the variance in MFI performance (R square = 0.544), but actually accounted for up to 52.9% (Adjusted R square = 0.529).

Table 4.33 Portfolio Monitoring Regression Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.737a</td>
<td>.543</td>
<td>.529</td>
<td>.20140</td>
</tr>
<tr>
<td>Durbin-Watson</td>
<td></td>
<td></td>
<td></td>
<td>.971</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Portfolio monitoring and control
b. Dependent Variable: Microfinance performance

The ANOVA test for model fit (Table 4.34) confirmed that the model regressing microfinance performance on portfolio monitoring and control was a fitting model to the data (F_{1, 31} = 36.958, p<0.05).

Table 4.34: Goodness of Fit for the Portfolio Monitoring Model

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>1</td>
<td>1.499</td>
<td>36.958</td>
<td>.000b</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>31</td>
<td>.041</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2.756</td>
<td>32</td>
<td>.041</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Microfinance Performance
b. Predictors: (Constant), Portfolio Monitoring and Control

The p value for the regression coefficient associated with portfolio monitoring and control (Table 4.35) revealed that portfolio monitoring and control positively and significantly predicted the performance of deposit taking MFIs in Uasin Gishu County (β = 0.737, p<0.05)

Table 4.35: Simple Linear Regression Coefficient of MFI Performance Portfolio Monitoring

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The connotation of these results is that monitoring and control as a facet of gross loan portfolio management impacts positively on the performance of deposit taking MFIs. The essence of the regression coefficient is that an increase of 1 standard deviation in portfolio monitoring and control leads to an increase of 0.737 standard deviations in performance of deposit taking MFIs in Uasin Gishu County.

The findings of the present study add weight to other studies that have reported similar findings in respect to impacts of portfolio monitoring and control and MFI performance. Addai and Chengyi (2012) for instance, posited that monitoring and control have potential to contain delinquent loans that would otherwise affect negatively on interest rate and net profit.

The study established that deposit taking MFIs in the study area, have put in place mechanisms such monitoring of nonperforming loans and appraisal of loan borrowers for purposes of sustaining their performance. These endeavors were found to be consistent with assertions made previously by others (Ngo, 2012; Rosenberg as cited in Ngo, 2012). It is therefore prudent to argue that the healthy performance noted among the deposit taking MFIs in the study could doubtlessly be due to compliance with gross portfolio management practices.
4.6.3 Summary of Hypotheses Tests Results

Table 4.36 provides a summary of the hypotheses tested together with the conclusions drawn.
Table 4.36: Summary of Hypotheses Test Results

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>$\beta$ – value</th>
<th>$p$ – value</th>
<th>Decision Rule</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H₀₁</strong>: accounting policies have no significant effect on performance of despot taking MFIs</td>
<td>0.557</td>
<td>P=.001</td>
<td>Not supported</td>
</tr>
<tr>
<td><strong>H₀₂</strong>: credit policies have no significant effect on the performance of deposit taking MFIs</td>
<td>0.775</td>
<td>p=.000</td>
<td>Not supported</td>
</tr>
<tr>
<td><strong>H₀₃</strong>: portfolio disclosure reports have no significant effect on the performance of deposit taking MFIs</td>
<td>0.810</td>
<td>p=.000</td>
<td>Not supported</td>
</tr>
<tr>
<td><strong>H₀₄</strong>: portfolio monitoring has no significant effect on the performance of deposit taking MFIs</td>
<td>0.737</td>
<td>p=.000</td>
<td>Not supported</td>
</tr>
</tbody>
</table>

### 4.6.4 Overall Regression Model

The purpose of the present study was to establish the effect of Gross loan portfolio management on the performance of deposit taking MFIs on Uasin Gishu County. The study therefore conceptualized that MFI performance was a function of gross loan portfolio management, and could be represented by the following model

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

Where:

- $Y$ = MFI performance (Dependent variable)
- $X_1$ = Accounting policies (independent variable)
- $X_2$ = Credit policies (independent variable)
- $X_3$ = Portfolio disclosure reporting (independent variable)
- $X_4$ = Portfolio monitoring (independent variable)
- $\beta_{i\epsilon} =$
- $\varepsilon =$
Regression coefficients

Error term

To test this conceptualization, MFI performance was regressed on the four variables measuring gross loan portfolio management. The multiple regressions model summary presented in Table 4.37 revealed that the multiple coefficient of determination was 0.811, an indication that gross loan portfolio management accounts for 81.1% of the variance in the performance of credit taking MFIs. The adjusted R square value of 0.784 implies that the variables that actually affected microfinance performance explained up to 78.4% of the variance in microfinance performance.

Table 4.37: Gross Loan Portfolio Management Multiple Regression Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.900</td>
<td>.811</td>
<td>.784</td>
<td>.13649</td>
<td>2.060</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Portfolio monitoring and control, Accounting policies, Portfolio disclosure, Credit policies and procedures
b. Dependent Variable: Microfinance performance

The ANOVA results in Table 4.38 show that the conceptualized model was statistically suitable. At least one of the regression coefficients was different from zero ($F_{4, 32} = 29.987$, p<0.05).

Table 4.38: Goodness of Fit Gross Loan Portfolio Management Multiple Regression

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>2.235</td>
<td>4</td>
<td>.559</td>
<td>29.987</td>
</tr>
<tr>
<td>Residual</td>
<td>.522</td>
<td>28</td>
<td>.019</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2.756</td>
<td>32</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Microfinance performance
b. Predictors: (Constant), Portfolio monitoring and control, Accounting policies, Portfolio disclosure, Credit policies and procedures
The multiple regressions coefficient displayed in table 4.39 revealed that when the four gross loan portfolio management variables were considered together, credit policies (B=0.351, p<0.05); portfolio disclosure (B=0.393, p<0.05); and portfolio monitoring (B=0.311, p<0.05) were positive and significant predictors of microfinance performance. Accounting policies (B=0.142, p<0.05) affected positively on MFI performance but was not significant meaning that the effect of accounting policies may not be felt when the variables act together.

The confirmed regressions model can therefore be represented as;

\[ Y = 0.431 + 0.142X_1 + 0.351X_2 + 0.393X_3 + 0.311X_4 + \varepsilon \]

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>.431</td>
<td>.355</td>
</tr>
<tr>
<td>Accounting policies</td>
<td>.142</td>
<td>.128</td>
</tr>
<tr>
<td>Credit policies</td>
<td>.351</td>
<td>.137</td>
</tr>
<tr>
<td>Portfolio disclosure</td>
<td>.393</td>
<td>.118</td>
</tr>
<tr>
<td>Portfolio monitoring</td>
<td>.311</td>
<td>.097</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Microfinance performance

Accounting policies have a positive and significant effect on the performance of deposit taking firms in Uasin Gishu County. The implication of these results is that accounting policies adapted as a measure of gross loan portfolio management impacts on the performance of the respective MFI. The significance of the regression coefficient is that an increase of 1 standard deviation in
adoption of accounting policies leads to an increase of 0.557 standard deviations in the performance of deposit taking MFIs.

The results confirm that management of credit policies and procedures remains a critical element of gross loan portfolio management. Indeed, the finding that credit policies and procedures positively and significantly affects performance of deposit taking MFIs. It is important to note that the present study examines MFI performance from a broader perspective that encompasses both financial and outreach services.

The finding showing high levels of portfolio monitoring and control among the deposit taking MFIs in Uasin Gishu County is consistent with findings by Ndambu, (2011), and places these institutions on course for good performance since monitoring and control positively and significantly predict MFI performance.

The connotation of these results is that monitoring and control as a facet of gross loan portfolio management impacts positively on the performance of deposit taking MFIs. The essence of the regression coefficient is that an increase of 1 standard deviation in portfolio monitoring and control leads to an increase of 0.737 standard deviations in performance of deposit taking MFIs in Uasin Gishu County.
5.1 Summary of the Findings
The main finding of the study and which tends to answer the research aim was that gross loan portfolio management practices impacts positively on the performance of deposit taking microfinance institutions in Uasin Gishu County, and accounts for up to 81.1% of the variation in performance of the MFIs. The summary of specific findings is presented in line with the four objectives that informed the study.

5.1.1 Adoption of Accounting Policies on Performance of Deposit Taking MFIs
The first objective of the study examined the effect of adoption of accounting policies on the performance of deposit taking microfinance institutions in Uasin Gishu County. Results from an exploration of adoption of accounting policies revealed that, deposit taking MFIs in Uasin Gishu County recognize the importance of accounting policies in prudent management of finances. As a result most of these institutions operating in Uasin Gishu County have put in place several mechanisms to consolidate and exploit the utility of accounting policies. The institutions have taken to documenting policies and procedures in financial statements; booking loan repayment before cash is received; analyzing and interpreting PAR reports; and availing positioning policies for loan classification.

Regression analysis examining the direct effects of adoption of accounting policies on firm performance further revealed that adoption of accounting policies as a measure of gross portfolio management, impacts positively and significantly on the performance of deposit taking MFIs in Uasin Gishu County. The study established that variation in the adoption of accounting policies
results in a variation of up to 31.1% in the performance of the deposit taking MFIs. The researcher therefore argues that adoption of accounting policies is a facet of gross portfolio management that receives due consideration in deposit taking MFIs in Uasin Gishu County, and which portends good performance for the institutions.

5.1.2 Credit Policies on Performance of Deposit Taking MFIs

The second objective of the present study desired to establish the effect of credit policies on the performance of deposit taking microfinance institutions in Uasin Gishu County. Descriptive exploration of key informants’ response scores revealed that credit policies were regarded highly in deposit taking MFIs in Uasin Gishu County. Practices such as; loan top up by defaulters; discouraging multiple lending to individuals; requiring compulsory savings among borrowers; and using history of arrears to compute loan increase have taken prominence in the institutions. The bottom line is that the deposit taking MFIs have recognized the importance of sound credit policies in firm stability.

The central role played by credit policies in the performance of deposit taking MFIs was confirmed through regression analysis. The regression results revealed that credit policies and procedures have a positive and significant effect on the performance of deposit taking MFIs in Uasin Gishu County, and accounts for up to 60% of the variation in the institutions performance. The implication is that the study was able to affirm that credit policies and procedures are measures of gross loan portfolio management, that impact directly on the performance of the institutions.
5.1.3 Portfolio Disclosure Reports on Performance of Deposit Taking MFIs

The third objective of the current study examined the effect of portfolio disclosure reports on the performance of deposit taking microfinance institutions in Uasin Gishu County. Exploration of the portfolio disclosure practices in deposit taking MFIs in Uasin Gishu County confirmed that indeed portfolio disclosures were treated with keen interest in the institutions. Practices such as; quarterly generation of portfolio reports; clarity of portfolio reports that reflect true positions; timely submission of reports; and ability of portfolio reports to show late payments on loans are used to define portfolio disclosures in the institutions.

Besides, the study through regressions analysis, established that portfolio disclosure reporting as a measure of gross loan portfolio management contributes greatly to the performance of deposit taking MFIs. The regression results revealed that portfolio disclosure positively and significantly predicts performance of deposit taking MFIs in Uasin Gishu County, and explains up to 65.7% of the variations in the performance of the institutions. It was therefore prudent to argue that performance of deposit taking MFIs is a function of portfolio reporting, which should then be prioritized among these institutions.

5.1.4 Portfolio Monitoring on Performance of Deposit Taking MFIs

The fourth and final objective of the study examined the effect of portfolio monitoring on the performance of deposit taking microfinance institutions in Uasin Gishu County. Results from an exploration of existing monitoring and control measures revealed that, monitoring and control is ongoing in deposit taking MFIs in Uasin Gishu County. Initiatives such as the desire to understand clients payment behavior through loan products; holding underperforming officers accountable;
use of legal channels to collect defaulted loans; and recognition that losses are a result of fraud practices go a long way to explain monitoring and control endeavors undertaken by the institutions.

Regression analysis examining the direct effects of portfolio monitoring and control on firm performance further revealed that portfolio monitoring and control, as a measure of gross portfolio management, impacts positively and significantly on the performance of deposit taking MFIs in Uasin Gishu County. The study established that variations in monitoring and control strategies results in a variation of up to 54.4% in the performance of the deposit taking MFIs. The researcher therefore argues that monitoring and control is yet another element of gross portfolio management that receives due consideration in deposit taking MFIs in Uasin Gishu County, and which also portends good performance for the institutions.

5.2 Conclusions
In view of the above findings, the following conclusions were drawn in line with the research objectives:

5.2.1 Accounting policies
Gross loan portfolio management remains central to the performance of deposit taking micro finance institutions operating in Uasin Gishu County. Adoption of accounting policies is of paramount importance, and has direct impacts on performance of these institutions. Besides, deposit taking MFIs need to take cognition of the fact that the contribution of 31.1% to the variations in the institutions performance implies that adoption of accounting policies on its own may not sufficiently influence the performance of the institutions.

5.2.2 Credit policies
Adherence to credit policies is fundamental to the understanding of gross loan portfolio management practices, and has direct impacts on performance of deposit taking MFIs operating in Uasin Gishu County.
Credit policies help in safeguarding the institutions finances, by for instance, ensuring that borrowers are forced to make compulsory savings, and discouraging multiple lending. It is however, important to note that, it may not be enough to comply to simply rely on credit policies and procedures when managing gross loan portfolio. A contribution of 60% although significant, is still not adequate. Rather, it is necessary to maintain other gross loan management measures alongside adherence to credit policies and procedures.

5.2.3 Portfolio disclosure reports

Portfolio disclosure reports in deposit taking MFIs in Uasin Gishu County are clearly being employed to streamline loan repayment, and to give the correct gross loan portfolio position. Such reports are having a significant effect on the performance of deposit taking MFIs. The contribution of 65.7% to the variations in the performance of the institutions implies that portfolio disclosure ranks among the main gross loan portfolio management measures. However, the unexplained 34.3% of the variations in MFI performance means that it equally may not achieve much on its own.

5.2.4 Portfolio monitoring

Portfolio monitoring represents a significant facet of gross loan portfolio management presently used in deposit taking MFIs in Uasin Gishu County. These institutions have taken to stemming delinquency, improving payment performance, enhancing internal controls, and providing staff incentives. The diminishing donor funding has made MFIs to access commercial funds in order to meet demands of new and existing clients as well as to improve their performance. This essentially calls for thorough monitoring of portfolio. Consequently, loan products have been used to segregate clients by payment behavior. Besides, the institutions have taken to legal means to improve loan repayment. The bottom line is that the tradeoff theory cannot be ignored in such situations.
5.3 Recommendations of the study

The study recommends that the management of these deposit taking MFIs in Uasin Gishu County to put in place several mechanisms to consolidate and exploit the utility of accounting policies. Managers or executives of companies act as stewards for the owners and both groups share common goals. Each institution to document its policies and procedures in financial statements; booking loan repayment; analyzing and interpreting PAR reports; and availing positioning policies for loan classification. These will be reviewed from time to time by engaging their field officers in formulating what can best work for them since they are the ones who are on the ground dealing with customers. Further studies need to be carried out to find out why financial reports and accounting policies have small variation in the gross loan portfolio management in Uasin Gishu County.

Credit policies and procedures are regarded highly in deposit taking MFIs in Uasin Gishu County. Practices such as; loan top up by defaulters; discouraging multiple lending to individuals; requiring compulsory savings among borrowers; and using history of arrears to compute loan increase have taken prominence in the institutions. The management have recognized the importance of sound credit policies in firm stability. The study recommends that since credit policies and procedures have a positive and significant effect on performance the institutions to adopt what they have but there be time to time reviews since credit policies and procedures has a direct impact on performance.

Exploration of the portfolio disclosure practices in deposit taking MFIs in Uasin Gishu County confirmed that indeed portfolio disclosures were treated with keen interest in the institutions. Practices such as; quarterly generation of portfolio reports; clarity of portfolio reports that reflect true positions; timely submission of reports; and ability of portfolio reports to show late payments
on loans are used to define portfolio disclosures in the institutions. The study recommended that since it positively and significantly predicts performance of deposit taking MFIs in Uasin Gishu County, management should give it priority. The study further recommends that studies to be carried out on how the financial reports and accounting policies can be consolidated with portfolio disclosure reports to have a bigger effect in performance.

Monitoring and control is ongoing in deposit taking MFIs in Uasin Gishu County. Initiatives such as the desire to understand clients payment behavior through loan products; holding underperforming officers accountable; use of legal channels to collect defaulted loans; and recognition that losses are a result of fraud practices go a long way to explain monitoring and control endeavors undertaken by the institutions. Monitoring and control has a positive effect on performance of deposit taking MFIs in Uasin Gishu. The study recommended for continuous monitoring to detect areas to put more controls and areas to improve.

5.3.1 Recommendations for Further Studies.

The present study investigated the effects of gross loan portfolio management practices on deposit taking MFIs in Uasin Gishu County. This study recommends that a further research should be carried out to determine the effects of gross loan portfolio management practices on credit only MFIs and commercial banks in Uasin Gishu County.

REFERENCES


Akoth J.J (2016). Credit risk management practices on loan portfolio of Barclays bank of Kenya. (Unpublished master’s research project submitted to the University of Nairobi)


Structural equation modeling with AMOSRutledge, New York (2010)


Di Bella, G., The Impact of the Global Financial Crisis on Microfinance and Policy


Reio Jr., Shuck B. (2014). Exploratory Factor Analysis, Implications for Theory, Research and Practice


Appendix i: Letter to Respondents

Dear respondent,

REF: CONSENT FOR PROVISION OF ACADEMIC DATA

My name is Elijah Achimba a student of Kisii University undertaking a course leading to the award of a degree in Master of Business Administration finance option.


Information provided will be treated as confidential and purely for academic purposes. Your consent will therefore be highly appreciated.

I consent to provide required data:-

Sign…………………………..  Date……………………………..
APPENDIX II. QUESTIONNAIRE

This questionnaire is to collect data for purely academic purposes. The study seeks to establish The Effects of Gross Loan Portfolio Management Practices on the performance of Deposit Taking Micro Finance Institutions in Uasin Gishu County, Kenya.

All information will be treated as confidential. DO NOT WRITE YOUR NAME OR PERSONAL FILE NUMBER ANYWHERE ON THIS QUESTIONNAIRE.

Answer all questions by either ticking the option that applies or filling in the blank space.

SECTION A: BACKGROUND INFORMATION

What is your Gender? Male □ Female □

What is your Age? Below 20 □ 20-29 □ 29-39 □ 39-49 □ 49 and above □

What is your highest Education level?
O’Level □
Diploma □
First degree □
Masters □
PhD □

What is your job title?
Branch manager □
Operations manager □
Credit officer □
Unit head □
Relation officer □
How many years of experience ☐ do you have?
Below 1 year ☐
1-5 years ☐
5-9 years ☐
Over 9 year ☐

GROSS LOAN PORTFOLIO MANAGEMENT PRACTICES
The following statements relate to gross loan portfolio management practices in microfinance institutions. Using the following scale where 1-Strongly Disagree; 2-Disagree; 3-Neutral; 4-Agree; and 5-Strongly Agree, indicate by ticking (✓) the response that best describes your response.

SECTION B: Accounting policies

<table>
<thead>
<tr>
<th>Accounting policies</th>
<th>SD</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The institutions’ existing controls ensures that unrecorded cash in the hands of loan officers is accounted for immediately and accurately</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. The institutions robust accounting systems are reflected in portfolio reports</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. The institution’s branch management always explains any discrepancy in the balances of reports</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Institution’s PAR reports are analyzed and interpreted by experts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. The institution has provisioning policies for loan classification</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Institutions’ financial statements documents policies and procedures as per the AMFI policies</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION C: Credit policies and procedures

<table>
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<tr>
<th>Credit policies and procedures</th>
<th>SD</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The institution’s policy discourages multiple lending to individuals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. To determine the rate of loan increase the institution uses history of arrears</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. There is reinforcement and accountability of credit officers by the institutions systems</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4. The institution entertains loan restructuring and renegotiation
5. The compulsory savings reduces the loan amounts to borrowers
6. The institution allows loan top up by defaulters
7. There are specific guidelines to different loan products in this institution

SECTION D: Portfolio disclosure reports

<table>
<thead>
<tr>
<th>Portfolio disclosure reports</th>
<th>SD</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. This institution generates complete set of portfolio reports and statements quarterly</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. This institution requires departments to submit accurate and timely reports to management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. The institution’s portfolio reports are the clear picture of what the institutions are in terms of performance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. To gauge its credit position, the institution generates reports to disclose outstanding loans at the beginning and end of period quarterly</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. The institution’s portfolio report show the extent of late payment on loans for the current period</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Institution’s investments are shown separately from interest and other income collected from borrowers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION E: Portfolio monitoring and Control

<table>
<thead>
<tr>
<th>Portfolio monitoring and Control</th>
<th>SD</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. To monitor progress, this institutions’ management always sets targets to staff who deal with credits operations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. This institution uses legal means to collect defaulted loans</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. The underperforming officers are held accountable when their results not optimal</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>4. This institution understands its’ clients payment behaviors depending on the loan products</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Institutions losses are as a result of fraud practices</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. The institution empowers credit officers to collect late loan payments</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SECTION F: MFI Performance indicators

<table>
<thead>
<tr>
<th>Performance Indicators</th>
<th>SD</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. To know how much it costs to process a single loan, this institution calculates operating cost ratio or cost per borrower</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. The institution does not tolerate customers with persistent arrears</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Institution’s rapid growth strains existing systems</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. The institution regularly monitors non-performing loans</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. This institution regularly appraises the number of active borrowers against average loan balance per borrower</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. This institution gauges its loan portfolio relative to the breath of outreach</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. The staff turnover in this institution is very high</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
7TH May, 2018

TO WHOM IT MAY CONCERN

Dear Sir / Madam,

RE: RESEARCH DATA COLLECTION PERMIT.

ELIJAH ACHIMBA ACHIMBA REG. NO: CBM12/10941/16

The above named is a bonafide student of Kisii university- Eldoret Campus pursuing a Masters in Business Administration (Finance Option) in the School of Business & Economics.


We are kindly requesting your office to provide him with the permit to proceed to the field for data collection and completion of his research.

Please do not hesitate to call the undersigned for any verification.

Any assistance extended to him will be highly appreciated.

Yours faithfully,

Dr. Charles O. Ondieke (0720986703)
DEPUTY DIRECTOR – ACADEMIC AFFAIRS
APPENDIX IV: NACOSTI PERMIT

THIS IS TO CERTIFY THAT:

MR. ELIJAH ACHIMBA
of KISII UNIVERSITY, 0-30100
Eldoret, has been permitted to conduct
research in Uasin-Gishu County

on the topic: THE EFFECT OF GROSS
LOAN PORTFOLIO MANAGEMENT
PRACTICES ON PERFORMANCE OF
DEPOSIT TAKING MFIS IN KENYA. A
SURVEY OF DEPOSIT TAKING MFIS IN
UASIN GISHU COUNTY.

for the period ending:
7th June, 2019

Applicant’s Signature

Permit No: NACOSTI/P/18/27807/22754
Date Of Issue: 7th June, 2018
Fee Recevied: Ksh 1000

Director General
National Commission for Science, Technology & Innovation

CONDITIONS

1. The License is valid for the proposed research,
research site specified period.
2. Both the Licensee and any rights thereunder are
non-transferable.
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shall submit a progress report.
4. The Licensee shall report to the County Director of
Education and County Governor in the area of
research before commencement of the research.
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Government agencies.
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upload a soft copy of their final report.
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conditions of this Licence including its cancellation
without prior notice.

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National Commission for Science, Technology and Innovation
RESEARCH CLEARANCE
PERMIT

Serial No.A 18851
CONDITIONS: see back page
APPENDIX V: NACOSTI RESEARCH AUTHORIZATION LETTER

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Ref No: NACOSTI/P/18/27807/22754

Elijah Achimba
Kisii University
P.O. Box 408-40200
KISII.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on “The effect of gross loan portfolio management practices on performance of deposit taking MFIs in Kenya. A survey of deposit taking MFIs in Uasin Gishu County,” I am pleased to inform you that you have been authorized to undertake research in Uasin Gishu County for the period ending 7th June, 2019.

You are advised to report to the County Commissioner and the County Director of Education, Uasin Gishu County before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit a copy of the final research report to the Commission within one year of completion. The soft copy of the same should be submitted through the Online Research Information System.

DR. MOSES RUGUTI, PHD, OGW
DIRECTOR GENERAL/CEO

Copy to:

The County Commissioner
Uasin Gishu County.

The County Director of Education
Uasin Gishu County.
## APPENDIX VI: PLAGIARISM REPORT

EFFECT OF GROSS LOAN PORTFOLIO MANAGEMENT PRACTICES ON PERFORMANCE OF DEPOSIT TAKING MICRO FINANCE INSTITUTIONS IN KENYA: A SURVEY OF DEPOSIT TAKING MICRO FINANCE INSTITUTIONS IN UASIN GISHU COUNTY

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### PRIMARY SOURCES

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IJECM United Kingdom: Paper decision ED611-34

malcolm christopher

to me, Hemant

Dear Concerned,

THE EFFECT OF GROSS LOAN PORTFOLIO MANAGEMENT PRACTICES ON PERFORMANCE OF DEPOSIT TAKING MICRO FINANCE INSTITUTIONS IN KENYA. A SURVEY OF DEPOSIT TAKING MICRO FINANCE INSTITUTIONS IN UASIN GISHU COUNTY

Editorial Assistant (Reviews) via ED8 System

Title: THE EFFECT OF GROSS LOAN PORTFOLIO MANAGEMENT PRACTIC...

Editor's Decision: Accepted as it is

Attachment:

Resubmission Deadline: N/A

Editorial Assistant (Payment) via ED9 System

Fee: 100 $

Payment Deadline: Nov 10, 2018

The paper is accepted for final publication in the upcoming Vol 6 issue 11 releasing on 15th Nov 2018.