INFLUENCE OF WORKING CAPITAL MANAGEMENT AND LOAN PORTFOLIO MANAGEMENT ON PROFITABILITY
OF MICRO FINANCE INSTITUTIONS IN BUSIA COUNTY, KENYA

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ABSTRACT

The aim of this study was to investigate the influence of working capital management and loan portfolio management on profitability of MFIs in Busia County. The target population was 125 senior and middle level management staff of 12 registered MFIs in Busia County; from where Yamame's sampling formula was applied to get a sample size of 95 respondents who were selected using simple random sampling. Data was collected using structured questionnaires and computed using SPSS 24; where descriptive and inferential statistics were generated. Pilot study was done in an established MFI in Bungoma County where content validity was applied to check instrument validity while cronbachs alpha that test internal consistency was used to check reliability of research instruments. A total of 82 out of 95 respondents returned completely filled questionnaires depicting a response rate of 86.3% which is good for generalizability of research findings to a wider population. From the values of unstandardized regression coefficients with standard errors in parenthesis, all the independent variables (working capital management and loan portfolio management were significant predictors of profitability of MFIs in Busia County (dependent variable). The study concluded that one; working capital management significantly influence profitability of MFIs, thus MFIs managers with sound working capital management can realize an improvement in MFIs profitability; two; good loan portfolio management positively influences MFIs profitability; therefore, MFIs with low Gross Non-Performing Loan Ratio will definitely experience an increase in profits. The study recommended that one; managers of MFIs should ensure net loan ratios simulate with net assets growth so as to make MFIs realize an improvement in profitability and two; managers of MFIs should ensure Gross Non-Performing Loan Ratio is minimized to reduce loan delinquencies which can negatively affect MFIs profitability.

Key words: Working Capital, Loan Portfolio, profitability, Micro Finance Institutions

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INTRODUCTION

Financial performance of MFIs as measured by profitability has attracted many investors and borrowers alike. Therefore, efforts by the MFIs management to improve financial performance must be matched with adoption of financial management practices that provide MFIs with competitive advantage over their rivals. One cannot claim autonomy over the list of financial management practices since they are diverse (Rahaman, 2010).

For instance, Chijoriga (2007) asserts that credit risk is the most expensive risk in financial institutions and its effect is more significant as compared to other risk as it directly threatens the solvency of financial institutions. The magnitude and level of loss caused by the credit risk as compared to other kind of risks is severe to cause high level of loan losses and even institutional failure. Risk management is a process of thinking systematically about all possible risks, problems or disasters before they happen and setting up procedures that will avoid the risk, or minimize its impact, or cope with its impact. It is basically setting up a process where you can identify the risk and set up a strategy to control or deal with it (Chijoriga, 2007).

Further, according to Bloem and Gorter (2001), though issues relating to non-performing loans may affect all sectors, the most serious impact is on financial institutions such as micro finance institutions and mortgage financing institutions which tend to have large loan portfolios. Besides, the large bad loans portfolios will affect the ability of banks to provide credit. Huge non-performing loans could result in loss of confidence on the part of depositors and foreign investors who may start a run on financial lending institution, leading to liquidity problems (Bloem &Gorter, 2001).

Loan portfolio is the total of all loans held by a bank or finance company on any given day. Therefore, individual loans form a loan portfolio in MFI. Loans generate huge interest for banks which contribute immensely to the financial performance of banks. However, when loans go bad they have some adverse effects on the financial health of banks. This is because in line with banking regulations, banks make adequate provisions and charges for bad debts which impact negatively on their performance (Ray, 2012). Bank of Ghana regulations on loan provisioning indicate that loans in the non-performing categories that is loans that are at least ninety days overdue in default of repayment will attract minimum provisions of 25%, 50% and 100% for substandard, doubtful and loss, respectively(Bank of Ghana Act, 2004).

In the global perspective, though MFIs play a significant role in economic empowerment of its citizen, their, sustainability especially in developing countries is wanting. For instance previous research has revealed that MFIs in Malaysia have operation self-sufficiency and have higher performance in terms of return on asset (ROA) and return on equity (ROE). All these studies used financial metrics in the measurement of performance of microfinance institutions (Cull et al., 2007).

Given that the vision of micro finance is to promote the growth of micro enterprises in Kenya, MFIs and other financial intermediaries have experienced rapid growth to support the youth financial requirements. A number of MFIs and financial intermediaries including Kenya Women Finance Trust (KWFT) and Faulu have come up to provide micro finance services to the low income groups for purposes of starting or developing income generating activities. These groups include youth and women. Related to this is the indication that MSEs access to credit has increased greatly from 7.5% in 2006 to 17.9% in 2009 (Simeyo et al., 2009).

Therefore, having identified the scarcity of credit as a major obstacle to economic growth, the government of Kenya, brought in the Microfinance Act that came into force on 2nd May, 2008 following the

Microfinance (Deposit Taking Microfinance Institutions) regulations by the Central Bank. The Act covers Deposit Taking Microfinance Institutions as well as non-deposit taking MFIs in addition to providing for banks to establish fully owned subsidiaries to undertake MFIs business (Nderi, 2012)). The Act has paved way for a much more comprehensive and consistent regulatory environment for MFIs having been designed to promote the performance and sustainability of deposit taking MFIs in addition to protecting depositors' interests better. The Act also enables MFIs to provide more wholesome financial services to the small micro enterprises Sector (Nderi, 2012).

Statement of the problem

MFIs play a significant role in socio economic transformation of the society because their advantages range from provision of easily accessible credit, poverty alienation up to issue of employment creation (Arsyad, 2015) and the general delivery of financial services to the poor households with limited access to some financial institutions like commercial banks (Obamuyi, 2007). However, the financial performance of microfinance institutions has received a general global displeasure despite the fact that international and national development programs have been giving high priority on sustainable microfinance for many years. Consequently, some have resorted to downsizing while others have closed business. This is caused by high running costs which affect their profitability and long term survival (Wafula, 2011). As a result of the underperformance of some MFIs, especially in the rural areas, the poor and vulnerable are not able to access credit from commercial banks and are thus left with no hope of breaking the poverty bondage (Arsyad, 2015).

Several studies conducted on financial management practices on profitability of MFIs have been found to have scanty information which cannot be relied on for better improvement on MFIs financial performance and the little available empirical studies have contradictory results. Thus the limited information on prudent financial management has subjected most MFIs to total closure and downsizing of staff (Simeyo et al., 2009); Tehulu, 2013). Further, most studies on financial management practices and MFI profitability were not done in Africa that has its own unique financial management problems (Arsyad, 2015). Therefore, this study investigated the influence of working capital management and loan portfolio management on the profitability of microfinance institutions in Busia County, Kenya.

Objectives of the study

The general objective of the study was to investigate influence of financial management practices on profitability of MFIs in Busia County, Kenya. The specific objectives were:-

- To determine the influence of working capital management on profitability of MFIs in Busia County, Kenya.
- To determine the influence of loan portfolio management on profitability of MFIs in Busia County, Kenya.

Research Hypotheses

- H_{01}: Working capital management does not significantly influence profitability of MFIs in Busia County, Kenya.
- H_{02}: Loan portfolio management does not significantly influence profitability of MFIs in Busia County, Kenya.

LITERATURE REVIEW

Theoretical review

Risk Aversion theory

Risk aversion is an investor's general desire to avoid participation in "risky" behavior or, in this case, risky investments (Fischer, 1972). This theory thus postulates that investors typically wish to maximize their return with the least amount of risk possible. When faced with two investment opportunities with

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similar returns, good investor will always choose the investment with the least risk as there is no benefit to choosing a higher level of risk unless there is also an increased level of return. Insurance is a great example of investors' risk aversion. Given the potential for a car accident, an investor would rather pay for insurance and minimize the risk of a huge outlay in the event of an accident. This theory therefore connects to this study in the sense that most investors in MFIs might fear profitability risks associated with loan delinquency ratios or net non-performing loans which can negatively affect return on investment by MFIs.

Modern portfolio theory

This is a finance theory that endeavors to maximize portfolio expected return for a given amount of portfolio risk, or equivalently minimize risk for a given level of expected return, by carefully choosing the proportions of various assets. Thus, it is a mathematical formulation of the concept of diversification in investing, with the aim of selecting a collection of investment assets that has collectively lower risk than any individual asset. That this is possible can be seen intuitively because different types of assets often change in value in opposite ways (Merton, 1973). For example, to the extent prices in the stock market move differently from prices in the bond market, a collection of both types of assets can in theory face lower overall risk than either individually. But diversification lowers risk even if assets' returns are not negatively correlated—indeed, even if they are positively correlated (Merton, 1973).

More technically, Modern Portfolio Theory models an asset's return as a normally distributed function (or more generally as an elliptically distributed random variable), defines risk as the standard deviation of return, and models a portfolio as a weighted combination of assets, so that the return of a portfolio is the weighted combination of the assets' returns (Merton, 1973). By combining different assets whose returns are not perfectly positively correlated, Modern Portfolio Theory thus seeks to reduce the total variance of the portfolio return because it assumes that investors are rational and markets are efficient. This theory therefore connects to this study in the sense that MFIs risk in the financial lending business thus must come up with viable loan portfolio and working capital management practices so as to survive in the competitive financial lending business, lest they encounter insolvency risks.

Review of study variables

Working capital management and profitability of MFIs

Working capital strength of a financial lending institution is of paramount importance in affecting its profitability. A well-capitalized financial lending institution is perceived to be of lower risk and such an advantage will be translated into higher profitability (Bikker & Hu, 2002) and Goddard et al. (2004) working capital strength is used to capture the fact that larger financial lending institution are better placed than smaller financial lending institution in harnessing economies of scale in transactions to the plain effect that they will tend to enjoy a higher level of profits. Consequently, a positive relationship is expected between working capital strength and profits.

For instance, Almazari (2014) investigated the internal factors that have an effect on profitability in Saudi and Jordanian banks and found that there is a positive correlation between profitability measured by ROA of Saudi and Jordanian banks with working capital indicators, as well as there is a negative correlation with other liquidity indicators between profitability measured by ROA of Saudi and Jordanian banks; thus recommended as similar study to be carried out in MFIs.

This study assessed whether finance issues such as cash flows, transaction costs, loan loss provisions,

MFIs capital base really influence profitability of MFIs in Busia County, Kenya. This is because working capital strength is used to capture the fact that larger financial lending institutions are better placed than smaller financial lending institutions in harnessing economies of scale in transactions to the plain effect that they will tend to enjoy a higher level of profits. Consequently, a positive relationship is expected between working capital strength and profits as supported by Bikker and Hu (2002) and Goddard et al. (2004) who found that working capital strength to be positively related to profitability.
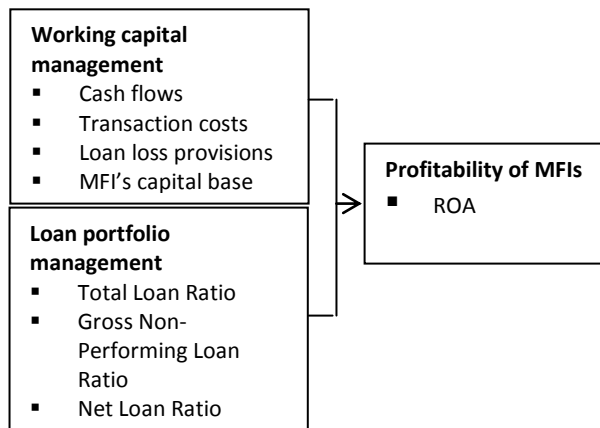
Loan portfolio management and profitability of MFIs

Loan portfolio management is a process encompassing many activities of investment in assets and securities. It is a dynamics and flexible concept and involves regular and systematic analysis, judgment and actions. For instance portfolio management deals with selection of securities from the number of opportunities available with different expected returns and carrying different levels of risk and the selection of securities is made with a view to provide the investors the maximum yield for a given level of risk or ensure minimum risk for a level of return (Campbell, 2002).

In this case, Hamisu (2011) asserted that credit creation involves huge risks to both the lender and the borrower. The risk of a trading partner not fulfilling his or her obligation as per the contract on due date or anytime thereafter can greatly jeopardize the smooth functioning of bank's business. On the other hand, a bank or MFI with high credit risk has high bankruptcy risk that puts the depositors in jeopardy. In a bid to survive and maintain adequate profit level in this highly competitive environment, banks and MFIs have tended to take excessive risks. But then the increasing tendency for greater risk taking has resulted in insolvency and failure of a large number of the banks and MFIs. However, the higher the volume of loans extended the higher the interest

income and hence the profit potentials for commercial banks and MFIs.

Conceptual Framework

Independent Variables   Dependent variable
Figure 1: Conceptual Framework
Source: Author (2019)

Empirical review of literature related to the study

Working capital management and profitability of MFIs

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Almazari (2014) investigated the internal factors that have an effect on profitability in Saudi and Jordanian banks and found that there is a positive correlation between profitability measured by ROA of Saudi and

Jordanian banks with working capital indicators, as well as there is a negative correlation with other liquidity indicators between profitability measured by ROA of Saudi and Jordanian banks; thus recommended as similar study to be carried out in MFIs.

Further, Gathoni (2013) conducted a study focused on the factors affecting sustainability of micro-credit groups in Kalama Ward- Machakos County in Kenya. Data was collected mainly by use of questionnaires had both closed and open ended questions. Out of the 2287clients in Machakos region which is comprised of 183 active groups and 40 inactive groups, 330 clients from Kalama Ward and 12 Staff were considered and applied Stratified Random sampling applied leading to a sample of 52 respondents. This study concluded and recommended that Policy, working capital management and internal control are the foundations of strong groups and forms the basis of partnership with service providers; and well-articulated constitution and credit policy facilitate client appraisal and set the basis of vetting criteria when evaluating prospecting loan applicants.

Loan portfolio management and profitability of MFIs
Portfolio Management is a process encompassing many activities of investment in assets and securities. It is a dynamics and flexible concept and involves regular and systematic analysis, judgment and actions. For instance Portfolio Management deals with selection of securities from the number of opportunities available with different expected returns and carrying different levels of risk and the selection of securities is made with a view to provide the investors the maximum yield for a given level of risk or ensure minimum risk for a level of return (Campbell, 2002).

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METHODOLOGY

This study adopted a descriptive survey design. Descriptive research design seeks to obtain information that describes existing phenomenon by asking individuals about their perceptions, attitudes and values (Mugenda & Mugenda, 2003). The target population in this study was senior and middle level management staff of 12 registered MFIs in Busia County, Kenya. The researcher used close ended questions (structured questionnaires) to collect data from the field. This was because structured questionnaires are simpler to administer, saves time and can collect a lot of information from sampled respondents within a short time (Cooper & Schindler 2014). The questionnaires were self-administered. Data collected will be edited, cleaned, and coded; and then SPPS version 23 was used to analyze the data. To examine the multiple relationship between the independent variables (working capital management and loan portfolio management) and the dependent variable (profitability of MFIs), the following multiple regression equation model was used;

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$$

Where Y= Dependent variable [profitability of MFIs]

α=Constant; the y intercept or the average response when predictor variables are 0

X_1= Independent variable 1 [working capital management]

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X2= Independent variable 2 [loan portfolio management]

ε= error term

β₁… B₂ = Beta Coefficients

FINDINGS

Descriptive statistics

This section showed descriptive analysis of data where computations such as frequencies, percentages, means and standard deviations; according to statements measuring the perception of how working capital management and loan portfolio management could influence profitability of MFIs;

which were measured using Likert scale with values ranging from 5 to 1; that is; 5=Strongly Agree, 4=Agree, 3= Uncertain, 2=Disagree and 1= Strongly Disagree.

Working capital management and profitability of MFIs

This analyzed objective one of the study; influence of working capital management on profitability of MFIs in Busia County. Therefore, table 1 showed a summary of responses measured on Likert scale where 5=Strongly Agree, 4=Agree, 3= Uncertain, 2=Disagree and 1= Strongly Disagree.

Table 1: Descriptive statistics; Working capital management

Statement	Frequency and percentages (%)					mean	Std.dev
	5	4	3	2	1		
1 Working Capital affects financial Performance of this MFI	13(15.9)	56(68.2)	4(4.9)	5(6.1)	4(4.9)	3.84	0.936
2 General cash flows affects financial Performance of this MFI	11(13.4)	51(62.2)	3(3.7)	10(12.2)	7(8.5)	3.60	0.832
3 The MFI debts ratio affects financial performance of MFI	10(12.2)	49(59.7)	6(7.3)	9(11.0)	8(9.8)	3.54	0.846
4 The MFI has enough cash to meet its financial obligations effectively	9(11.0)	41(50.0)	5(6.1)	21(25.6)	6(7.3)	3.32	0.885
5 Generally working capital influence MFI profits	15(18.3)	50(61.0)	4(4.9)	7(8.5)	6(7.3)	3.74	0.887
Valid listwise 82							
Grand mean = 3.61							

From table 1, most respondents agreed (68.2%) and strongly agreed (15.9%) that working capital affected financial performance of this MFI implying that MFIs with poor working capital management could not realize improvement in profitability. Similarly, 62.2% and 13.4% of respondents agreed and strongly agreed respectively that general cash flows affected financial performance of this MFI; implying that MFIs with cash flow problems depicts poor flow of capital thus can have a negative bearing on profitability.

More so, most respondents agreed (59.7%) and strongly agreed (12.2%) that the MFI debts ratio affects financial performance of MFI; thus high debt ratios will result in low capital which will affect financial operations within the MFI and consequently

affect MFI profitability. Similarly, most respondents agreed (50.0%) and strongly agreed (11.0%) that the MFI has enough cash to meet its financial obligations effectively. This implies that most MFIs in Busia County have adequate financial base to meet its operations possibly because of having experienced managers who really understand financial management of MFIs.

In summary, most respondents agreed (61.0%) and strongly agreed (18.3%) that generally working capital influence MFI profits; and the grand mean = 3.61 rounded off to 4 = agree on the likert scale used in the study. This meant that MFIs needed efficient and effective working capital management to realize profits. This was supported by Bikker and Hu (2002)

and Goddard et al. (2004) who asserted that working capital strength of a financial lending institution is of paramount importance in affecting its profitability because a well-capitalized financial lending institution is perceived to be of lower risk and such an advantage will be translated into higher profitability. That is, working capital strength is used to capture the fact that larger financial lending institution are better placed than smaller financial lending institution in harnessing economies of scale in transactions to the plain effect that they will tend to enjoy a higher level of profits. Consequently, a positive relationship is expected between working capital strength and profits; and Bikker and Hu (2002) and Goddard et al. (2004) found working capital strength to be positively related to profitability.

.Loan portfolio management and profitability of MFIs

This analyzed objective three of the study; influence of Loan portfolio management on profitability of MFIs in Busia County. Therefore, table 2 showed a summary of responses measured on Likert scale where 5=Strongly Agree, 4=Agree, 3= Uncertain, 2=Disagree and 1= Strongly Disagree. The table 2 showed frequencies, percentages (in brackets), means and standard deviations.

Table 2: Descriptive statistics; Loan portfolio management

Statement	Frequency and percentages (%)					mean	Std.dev
	5	4	3	2	1		
1 Provision to Total Loan Ratio affects Financial Performance of this MFI	9(11.0)	48(58.5)	5(6.1)	11(13.4)	9(11.0))	3.48	0.788
2 Gross Non-Performing Loan Ratio affects Financial Performance of this MFI	10(12.2)	49(59.7)	3(3.7)	14(17.1)	6(7.3)	3.57	0.836
3 Net Loan Ratio affect Financial Performance of this MFI	11(13.4)	52(63.4)	4(4.9)	8(9.8)	7(8.5)	3.63	0.806
4 Non-Performing Loan Ratio affects Financial Performance of this MFI	12(14.6)	51(62.0)	3(3.9)	10(12.2)	6(7.3)	3.65	0.804
5 Generally loan portfolio management influence MFI profits	14(17.1)	54(65.6)	3(3.9)	7(8.5)	4(4.9)	3.85	0.983
Valid listwise 82							
Grand mean = 3.636							

Table 2 showed that most respondents agreed (58.5%) and strongly agreed (11.0%) that provision to Total Loan Ratio affects financial performance of this MFI, implying that MFIs must control their total loan ratios to enabled them reduce non-performing loan ratio which can negatively affect their profits. More so, most respondents agreed (59.7%) and strongly agreed (12.2%) that Gross Non-Performing Loan Ratio affects Financial Performance of this MFI. This implies that MFIs loan management team must craft viable loan recovery policies to reduce non-performing loans which can negatively affect MFIs profitability.

Further, most respondents agreed (63.4%) and strongly agreed (13.4%) that Net Loan Ratio affect Financial Performance of this MFI. This means that MFIs loan management team must ensure that they maintain a viable net loan ratio which can realize an improvement in MFIs profitability. Similarly, 62.0% and 14.6% of respondents agreed and strongly agreed that Non-Performing Loan Ratio affects Financial Performance of this MFI; this implies that high non-performing loan ratios can negatively affect in MFI profitability.

Lastly most respondents agreed (65.6%) and strongly agreed (17.1%) that generally, loan portfolio management influence MFI profits. The grand mean is 3.636 rounded to 4 = agree on the likert scale, implying that most respondents were of the view that loan portfolio management influence MFI profits. This was supported by Gongera et al. (2013), who studied on the effect of loan portfolio management on organization profitability; a case of Commercial Banks in Kenya. The variables studied were loan portfolio management, interest expense, administration costs and assets value. The study revealed that loan portfolio management was a significant predictor of liquidity, thus recommended a similar study to be done on MFIs so as to compare results.

Inferential statistics

The correlation analysis in table 3 showed that both independent variables (working capital and loan portfolio management) had significant linear relationship with the dependent variable (MFI profitability).

Table 3: Correlation Analysis

		Working Capital Mgt	Loan Portfolio Mgt	MFI Profitability
Working Capital Mgt.	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	82		
Loan Portfolio Mgt.	Pearson Correlation	.640**	1	
	Sig. (2-tailed)	.000		
	N	82	82	
MFI Profitability	Pearson Correlation	.748**	.828**	1
	Sig. (2-tailed)	.000	.000	
	N	81	81	81

Linear regression analysis
This tested the direct effect of working capital management and loan portfolio management on MFIs profitability.

Linear influence of working capital management on MFIs profitability
This tested the linear relationship between working capital management and MFIs profitability as shown in table 4. The model summary in table 4 showed that R^2 is 0.559 which implied that 55.9% variation in MFIs profitability is explained by MFIs working capital management while other factors not in model accounts for 44.1% variation in MFIs profitability. Further, coefficient analysis showed that there was a linear significant effect of working capital management on MFIs profitability (β= 0.773 (0.077); at p<.01); implying that a single increase in efficient working capital management yielded 0.773 unit increase in MFIs profitability. The linear regression equation was;

(i) Y = **0.890+ 0.773X_1**

Where;

y = MFIs profitability

X_1 = working capital management

Table 4: Direct influence of working capital management on MFIs Profitability

Model Summary

Mode	R	R Square	Adjusted R	Std. Error of	Change Statistics		

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I		Square	the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.748ᵃ	.559	.554	.74216	.559	100.307	1	79	.000

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ANOVAᵇ

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Model		Sum of Squares	df	Mean Square	F		Sig.
1	Regression	55.249	1	55.249	100.307		.000ᵃ
	Residual	43.513	79	.551			
	Total	98.762	80				

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Coefficientsᵃ

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Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.890	.270		3.295	.001
	Working Capital	.773	.077	.748	10.015	.000

a. Dependent Variable: MFI Profitability

Linear influence of loan portfolio management on MFIs profitability

This tested the linear relationship between loan portfolio management and MFIs profitability as shown in table 5. The model summary in table 5 showed that R^2 is 0.685 which implied that 68.5% variation in MFIs profitability was explained by MFIs loan portfolio management while other factors not in model accounts for 31.5% variation in MFIs profitability. Further, coefficient analysis showed that there was a linear significant effect of loan portfolio management on MFIs profitability (β= 0.872 (0.067); at $p<.01$); implying that a single increase in efficient loan portfolio management yields 0.872 unit increase in MFIs profitability. The linear regression equation was;

(ii) Y = **0.322+ 0.872X₃**

Where;

y = MFIs profitability

X_3 = loan portfolio management

Table 5: Direct influence of loan portfolio management on MFIs Profitability

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Model Summary

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Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
					Change Statistics				
1	.828ᵃ	.685	.681	.62773	.685	171.633	1	79	.000

<div align="center">

ANOVAᵇ

</div>

Model		Sum of Squares	df	Mean Square	F		Sig.
1	Regression	67.632	1	67.632	171.633		.000ᵃ
	Residual	31.130	79	.394			
	Total	98.762	80				

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.322	.077		4.158	.000
	Loan Portfolio	.872	.067	.828	13.101	.000

a. Dependent Variable: MFI Profitability

Multiple regression analysis

Linear regression analysis showing both the F values and the corresponding significant values revealed that the four independent variables (working capital management and loan portfolio management) were indeed different from each other and that they affected the dependent variable (profitability of MFIs) in a different manner, hence, the possibility of running multiple regression. The mandatory model assumptions for running multiple regression analysis were also checked and met. The results were shown in table 6.

Table 6: Multiple regression analysis

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.910[a]	.829	.820	.47196	.829	91.845	4	76	.000

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	81.833	4	20.458	91.845	.000[a]
	Residual	16.929	76	.223		
	Total	98.762	80			

a. Predictors: (Constant), Working Capital Mgt, Loan Portfolio Mgt

b. Dependent Variable: MFI Profitability

Table 6 showed the multiple regression results of the combined effects of the two independent variables (working capital management and loan portfolio management). The multiple regression results in table 6 showed the F statistics is significant (F = 91.845; significant at p<.001), thus confirming the fitness of the model. For an R^2 of 0.829 shows that the study explained 82.9% of variation in profitability of MFIs while other factors not in the study model accounted for 18.1%, hence, it was a good model.

Table 7: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.432	.070		6.215	.000
	Working Capital Mgt	.252	.069	.244	3.640	.000
	Loan Portfolio Mgt	.346	.107	.328	3.236	.002

a. Dependent Variable: MFI Profitability

Further, from values of unstandardized regression coefficients with standard errors in parenthesis, all the independent variables (working capital management; β = 0.252 (0.069) at $p<0.01$ and; loan portfolio management; β = 0.346 (0.107) at $p<0.05$ significantly predicted profitability of MFIs (dependent variable). Thus, the final multiple regression equation is;

(iii) Y= 0.432 +0.252X_1+ 0.346X_2

Where;

y= profitability of MFIs in Busia County

X_1= working capital management

X_2= loan portfolio management

Hypothesis testing

Study **hypothesis one** stated that working capital management does not significantly influence profitability of MFIs in Busia County, Kenya. The results indicated that working capital management significantly influence profitability of MFIs in Busia County (β = 0.252 (0.069) at $p<0.01$). Hypothesis one was therefore rejected. The results imply that a single increase in efficient working capital management yields 0.252 unit increase in profitability of MFIs. The results are supported by Almazari (2014) who investigated the internal factors that have an effect on profitability in Saudi and Jordanian banks and found that there is a positive correlation between profitability measured by ROA of Saudi and Jordanian banks with working capital indicators.

Further, Gathoni (2013) conducted a study focused on the factors affecting sustainability of micro-credit groups in Kalama Ward- Machakos County in Kenya; and recommended that policy, working capital management and internal control are the foundations of strong groups and forms the basis of partnership with service providers; and well-articulated constitution and credit policy facilitate client appraisal and set the basis of vetting criteria when evaluating prospecting loan applicants. This is also reinforced by Moti et al. (2012) who examined the

effectiveness of credit management system on loan performance of microfinance institutions and recommended that microfinance institutions should consider loan portfolio management issues and MFIs working capital strength in granting loans so as to mitigate on loan delinquency which subsequently affects financial performance of MFIs.

Study **hypothesis two** stated that loan portfolio management does not significantly influence profitability of MFIs in Busia County, Kenya. The results indicated that loan portfolio management significantly influence profitability of MFIs in Busia County (β = 0.346 (0.107) at $p<0.05$).Hypothesis three was therefore rejected. The results imply that a single improvement in loan portfolio management yields 0.346 unit increase in profitability of MFIs. The results are supported by Lagat et al. (2013) who analyzed the effect of credit risk management practices on lending portfolio among savings and credit cooperatives in Kenya using data on risk identification, risk analysis; risk monitoring, risk evaluation and risk mitigation obtained from 59 SACCOs in Nakuru County; and concluded that majority of the SACCOs have adopted largely risk management practices as a means of managing their loan portfolio.

Hamisu (2011) also found that credit creation involves huge risks to both the lender and the borrower. The risk of a trading partner not fulfilling his or her obligation as per the contract on due date or anytime thereafter can greatly jeopardize the smooth functioning of bank's business. On the other hand, a bank or MFI with high credit risk has high bankruptcy risk that puts the depositors in jeopardy. In a bid to survive and maintain adequate profit level in this highly competitive environment, banks and MFIs have tended to take excessive risks. But then the increasing tendency for greater risk taking has resulted in insolvency and failure of a large number of the banks and MFIs. However, the higher the volume of loans extended the higher the interest income and

hence the profit potentials for commercial banks and MFIs.

CONCLUSIONS

First the study concluded that working capital management significantly influence profitability of MFIs, thus MFIs managers with sound working capital management can realize an improvement in MFIs profitability.

Secondly, good loan portfolio management positively influences MFIs profitability; therefore, MFIs with low Gross Non-Performing Loan Ratio will definitely experience an increase in profits.

RECOMMENDATIONS

First, the study recommended that there should be efficient working capital management in MFIs so as to guarantee profitability of MFIs.

Secondly, managers of MFIs should ensure Gross Non-Performing Loan Ratio is minimized to reduce loan delinquencies which can negatively affect MFIs profitability.

Areas for further research

First, a similar study can be done on MFIs but with the use of objective measures of profitability using time series data so as to compare results

Secondly, a comparative study can done using both financial and non-financial measures of MFIs growth

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