Research Paper
Impact Factor: 6.462
Peer Reviewed & Indexed Journal
www.ijmsrr.com

IJMSRR
E- ISSN - 2349-6746
ISSN -2349-6738

FACTORS AFFECTING FINANCIAL PERFORMANCE OF MICROFINANCE INSTITUTIONS IN ETHIOPIA

Belay Beyene* **Dr. Padakanti Laxmikantham****
**Anbesa International Bank, Addis Ababa, Ethiopia.*
***Associate Professor, Department of Accounting Finance, Addis Ababa University, Ethiopia.*

Abstract
This study examined the effect of internal and external factors on financial performance of Ethiopian microfinance institutions over a period of ten years (2010 to 2019). The study used panel data of nineteen microfinance institutions from year. The study employed an explanatory type of research following a quantitative approach and secondary financial data were analyzed by using multiple linear regressions model. Random effect regression model was applied to investigate the impact of capital asset ratio, portfolio quality, and management efficiency, employee productivity, gearing ratio, microfinance size, microfinance age, inflation rate and real GDP on the financial performance of Ethiopian microfinance institutions measured by return on asset. The finding of the study shows that capital asset ratio, employee productivity and age of microfinance have statistically significant and positive relationship with financial performance. On the other hand, variables such as management efficiency, portfolio quality, and size of microfinance have a negative and significant relationship with MFI's financial performance. However, the relationship of gearing ratio, real GDP, and inflation rate with financial performance were found to be statistically insignificant. The study suggests that focusing and redesigns the institutions with significant key internal drivers of financial performance of microfinance institutions in Ethiopia.

Keywords: Financial Performance, Micro Finance Institutions.

1. Introduction

Microfinance consists of the provision of financial services for the poor people who are out of the conventional banking system in developing countries like Ethiopia.MFIs are defined in terms of the subsequent features: targeting the poor especially the poor women; promoting small businesses; building capacity of the poor; extending small loans without collaterals; linking credit with savings; and charging commercial interest rates (Dejene, 1998 cited in Alemayehu, 2008). It has a dual goal, that of attaining financial sustainability and reducing poverty.

In Ethiopia, microfinance services are formally established after the issuance of proclamation No. 40/1996. Since the implementation of the above Proclamation, the number of microfinance institutions and their clients are increasing from time to time. Accordingly, numerous MFIs have formally been registered and began providing microfinance services to their clients. Currently, there are 38 MFIs registered with the National Bank of Ethiopia serving clients.

Financial performance is a means of how well microfinance institutions can utilize their assets from their main mode of activities and earns revenue. Microfinance institutions are considered as one of the policy instruments to eradicate poverty and to inspire different groups by providing initial money for small business. So as to sustain their tremendous contribution to the poorest and developing society in the current dynamic macro-economic environment, they need to periodically research and revisit the major factors affecting their performance especially financial performance.

1.2. Statements of the problem

MFIs provide financial services to low income people who are not included in the conventional banking system. According to Wolday (2000), formation of Sustainable MFIs that reach a large number poor people who are not served by the conventional financial institutions, such as the commercial banks has been the main component of the new development Strategy of Ethiopia. The objective of almost all of the microfinance institutions in Ethiopia is poverty mitigation. To achieve this objective, MFIs have a duty to be financially viable and sustainable.

Regarding MFIs performance in Ethiopia different researches have been conducted. For instance, Ebsa.et.al (2012, cited in Belainesh, 2016) studied on determinants of financial performance and challenges of MFIs and the financial performance assessment part covers few areas of indicators mainly of breadth of Outreach: number of customers and the amount of loan grant to borrowers. Berhanu (2019) carried out an investigation on determinants microfinance institutions performance in Ethiopia. The researcher concluded that capital structure ratio, capital adequacy ratio, operational efficiency ratio, firm size ratio and number of borrowers affect the financial performance of MFI. Sisay (2016) also conclude that portfolio at risk, loan loss reserve ratio, operational self-sufficiency, financial self-sufficiency, debt to equity ratio and size of MFI are the main determinants of financial performance of Ethiopian MFIs.

According to the knowledge of the researchers, previous studies conducted do not include the variables management efficiency and employee productivity in their study. Thus, this study would focus on filling these research gaps by adding these two new variables and replicating the existing to examine their effect on financial performance of Ethiopian MFIs.

1.3. Objective of the Study

1.3.1. General Objective

The main objective of this study is to investigate the factors affecting financial performance of microfinance institutions in Ethiopia

1.3.2. Specific Objectives

Particularly, the study addressed the following objectives

- To determine the impact of capital asset ratio on financial performance of microfinance institutions.
- To assess the effect of portfolio quality on financial performance of microfinance institutions
- To investigate the influence of management efficiency on financial performance of microfinance institutions.
- To analyze the effect of employee productivity on financial performance of microfinance institutions.
- To assess influence of debt to equity ratio on financial performance of microfinance institutions
- To analyze the effect of size on financial performance of microfinance institutions.
- To evaluate the effect of age on financial performance of microfinance institutions.
- To determine the influence of GDP on financial performance of microfinance institutions.
- To investigate the impact of inflation on financial performance of microfinance institutions.

1.4. Significance of the Study

The results of the study will be useful to the stakeholders such as managers, Government, donors and regulators. To managers, the study will help them in identifying the factors affecting financial performance of MFIs and thereby take appropriate actions to protect their MFIs from different risks, and

maintain a sound and healthy financial system through an efficient and effective financial statement management. To Government, the results will assist to develop adequate policies that encourage the growth and development of the MFI industry. To donors, the study will help them to get valuable information and understand the levels of financial performance of the MFIs have been reached. To regulators such as NBE and AEMFI, this study will contribute to set financial performance standards. The study Will also initiate microfinance institutions to give due emphasis on the management of identified variables. Furthermore, it gives some supplement motivation for future researchers to conduct a further cutting-edge study. Finally, it has been also contributed additional elements to the existing literature on financial performance of MFIs.

1.5. Scope of the study

The scope of the study was bound on the effect of microfinance internal and external factors affecting on the financial performance of microfinance institutions in Ethiopia by using ten consecutive years (2010-2019) financial statements of each microfinance institution. Based on the availability of audited financial statements data, only 19 samples were selected out of a total population of 38 microfinance institutions operating in Ethiopia. The selected nineteen MFIs are existed in operation for more than ten years. The study used one dependent variable, return on asset (ROA) and nine independent variables, such as capital asset ratio, portfolio quality, management efficiency, employee productivity, gearing ratio, size, age, and GDP and inflation rate.

2. Literature Review

This part provided a short review of the previous researches made on the determinants of MFIs performance. Below are some of the summaries of previous empirical studies by different scholars.

Hermes & Hundon(2018), in their research on “determinants of microfinance institutions”, made a systematic review on determinants of financial and social performance of MFIs, by using secondary data. The majority of their study was based on quantitative methods to analyze the performance of microfinance institutions. Their result was maturity; size and type of organization, funding sources available, governance structure of MFIs have a direct and inverse impact on performance of MFIs.

Ongore & Kusa, (2013) has also conducted an investigation on Operational Sustainability determinants of Kenyan Micro Finance Institutions. The main objective of the research was to investigate the factors that affect the operations self- sufficiency and financial sustainability. A descriptive research design was employed by the study and data was collected from thirty microfinance institutions. The obtained data was analyzed by linear multiple regression model. The study used Capital to asset ratio and Operating Expenses/Loan Portfolio indicators as independent variable and Operational Self Sufficiency ratio as dependent variable in the regression model. Accordingly, the study revealed that the factors that influence the operations and financial sustainability are capital/ asset ratio and operating expenses.

Waithaka (2013), made a study on indicators that influence the social performance of microfinance institutions in Kenya. The analysis was made by using various statistical tools to make tests like validity, reliability, and factor analysis and normality test for dependent variable. The result was the leadership characteristics, involvement of stakeholders in MFIs, size of MFIs, age of MFIs have an impact on performance of MFIs.

Yenesew (2014) conducted a research entitled on factors influencing Ethiopian microfinance institutions performance. His objective is to investigate determinants of MFIs financial performance in Ethiopia from the period 2003 to 2011 using OLS estimation method to extent the effect of microfinance specific and macroeconomic determinants on financial performance of MFIs with is measured by return on asset

(ROA). The outcomes of the investigation indicated that variables such as operational efficiency, GDP, and size of MFIs influence financial performance of MFIs significantly. On the other hand, variables like portfolio at risk, debt to equity ratio and market concentration have negative and insignificant effect of financial performance of MFIs.

Berhanu, (2019) carried out a research on determinants of microfinance institution in Ethiopia to examine their Financial Performance in the case of Damota branch. The study collected primary data from 38 staff respondents through questioners and secondary data from five years (2013- 2017).The researcher concluded capital adequacy ratio, operational efficiency ratio, firm size ratio, numbers of borrowers and age ratio of MFI have inverse relationship on performance measurement of ROA.

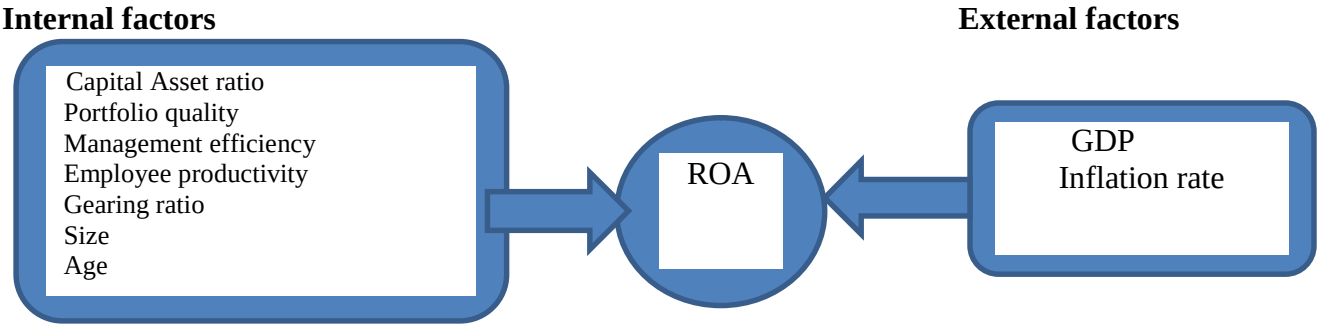
Alemayehu (2008) also studied on determining the performance of MFIs in Ethiopia by selecting six microfinance institutions. The study focused on analysis of profitability and sustainability, asset and liability management, and efficiency and productivity of MFIs in Ethiopian using a descriptive analysis of data collected from audited annual reports of 6 microfinance institutions covering a period of five years (2002-2006). The result of the study showed that most of the MFIs were doing well in terms of Operational self-sufficiency and financial self-sufficiency though both operational and financial self-sufficiency declined with the size of the institutions. The researcher concluded that the sustainability of large and medium Ethiopian MFIs were inspiring, but the case in small MFIs in Ethiopia demands concern for the fact their good outreach actions are not accompanied with good sustainability determinants.

Sisay (2016) studied on determinants of microfinance institutions performance. His objective was to investigate the determinants of performance of MFIs in Ethiopia over a period of twelve years (2003-2015). Financial performance of MFIs was measured by return on asset (ROA). The finding of the study indicated that variables such as operational self –sufficiency and financial self-sufficiency have positive and significant impact on return on asset of MFIs. On the other hand, variables like portfolio at risk, loan loss reserve, debt to equity ratio and size of microfinance have negative and significant effect of return on asset of MFIs.

2.1. Conceptual framework

Varies empirical evidences proposed that the financial performances of microfinance institutions are influenced by both internal and external factors. Both Internal and external factors used in this study include Capital asset ratio, Portfolio Quality, Management efficiency, Employee productivity, Debt to equity ratio, Microfinance Size, Age, real GDP and Inflation rate only for the study proposed.

Figure 2. 1 Relations between financial performance and its factors



Source: Designed by the researcher

3. Methodology

The main objective of this study is to investigate the factors affecting financial performance of Ethiopian MFIs for the period covers 2010 to 2019. The study adopted an explanatory research design following a quantitative research approach to achieve the stated objective. When a study needs to measure the cause and effect relations between dependent and independent variables an explanatory research design is useful.

This study used purely secondary source of data that was taken from the national bank of Ethiopia and audited financial statements of each MFI for consecutive 10 years were utilized. Accordingly, financial data for nineteen MFIs for the period of 2010-2019 were collected from the NBE.

The target population of this particular study included all the microfinance institutions currently operating in Ethiopia. At present, there are 38 microfinance institutions registered by the NBE which are providing a microfinance service to the poor society in Ethiopia on the current period.

The study employed non probability sampling specifically purposive sampling technique to select the samples based on the age and accessibility of complete audited financial statements. The rationale behind selecting purposive sampling technique than others is, it considered more appropriate when the universe happens to be small. Accordingly, from 38 microfinance institutions currently operating in Ethiopia, 19 microfinance institutions have included as a sample in the study operating for more than ten years (2010-2019). The selected nineteen MFIs are: ACSI, ADCSI, OCSSCO, OMO, DCSI, Aggar, AVFS, Ben.Gum, BUS.GON, Eshet, Gasha, Harbu, Meklit, Metemamen, PEACE, Sidama, SFPI, Wassa and Wisdom. Among the 19 MFls selected the first five are government owned as per the order mentioned.

The collected panel data were analyzed by using descriptive statistics, correlation coefficient, and multiple linear regression analysis. The secondary data was analyzed by using E-views 10 for windows software package and then obtain and analyze statistical results. Basically, the mean, standard deviation, minimum and maximum values of the study were analyzed using descriptive statistical tools. Before undertaking any manipulations of the data, the study computed the descriptive statistics and correlation matrices for all MFIs in the sample.

Model Specification

In this research, the general multiple linear regression model is adopted to examine the effect internal and external variables on MFIs financial performance. The regression model is stated as shown on the equation below.

$$ROA_{it} = \beta_{oi} + \beta_1 CAR_{it} + \beta_2 POR_{it} + \beta_3 MGE_{it} + \beta_4 EMP_{it} + \beta_5 GR_{it} + \beta_6 SIZE_{it} + \beta_7 AGE_{it} + \beta_8 GDP_{it} + 9INF_{it} + €_{it}$$

Description and Measurement of variables

Specifically for this study the dependent variable is the financial performance of the MFIs which was measured by the ratio of return on total asset (ROA).
Return on Asset (ROA)

The ROA measures how well the MFI uses all its assets to generate income.

Return on Asset (ROA) =Net income/ Total asset

To measure the financial performance of Ethiopian MFIs, nine explanatory variables were chosen based on previous studies conducted in the area of microfinance institutions performance. These variables are capital asset ratio, portfolio quality, management efficiency, employee productivity, gearing ratio, size of microfinance and age of microfinance, GDP and inflation rate.

Capital asset ratio: The ratio of equity to asset was used

Portfolio Quality: Outstanding balance, loan overdue>30 days to Adjusted gross loan portfolio

Management efficiency: The ratio of operating expense to operating income was used

Employee productivity: The ratio of total income to salary and benefit expense

Gearing ratio: The ratio of debt to equity was used

MFI size: The natural logarithm of the total asset of the MFI

MFI Age: Number of years of operation

Real GDP: The yearly real gross domestic product growth rate was used

Inflation: The yearly inflation rate was taken for each MFI.

4. Results and Discussion

4.1. Descriptive statistics

This section discusses the outcomes obtained from the descriptive statistics for both dependent and independent variable. The dependent is Return on Asset (ROA), and the independent variables: capital asset ratio (CAR), portfolio at risk (PAR), management efficiency (MGE), employee productivity (EMP), gearing ratio (GR), SIZE, AGE, real gross domestic product (GDP) and inflation rate (INFL). Key figures, including mean, standard deviation, minimum and maximum values were reported. These figures give overall description about the data used in the model. In all, a total of 190 observations were presented for nineteen microfinance institutions covering a period of 2010-2019. The table below provided a summary of the descriptive statistics for all variables.

Table 4.1.Descriptive Statistics

Variable	Observation	Mean	Median	Max	Min	Std.Dev
ROA	190	0.106076	0.066028	0.454508	-0.223296	0.122551
CAR	190	0.344911	0.339895	0.802099	-0.024816	0.142918
PAR	190	0.045848	0.033300	0.260000	0.000000	0.044951
MGE	190	0.675471	0.644332	4.817761	0.138060	0.432913
EMP	190	4.721482	3.836808	18.30826	0.172794	2.991238
GR	190	2.233518	1.893987	11.88495	0.246722	1.504452
SIZE	190	12.52305	12.12500	17.30000	9.700000	1.904885
AGE	190	15.18421	15.00000	22.00000	5.000000	3.686492
GDP	190	0.095590	0.100750	0.114000	0.077000	0.011996
INFL	190	0.124021	0.097105	0.341000	0.028000	0.082639

Source: E-views 10 output (2021)

As it is shown in the table above, the financial performance of Ethiopian Micro Finance institutions which is measured by Return on Asset for 190 observations indicates that averagely positive value of 0.10 during the study period of (2010-2019). In addition to this the Maximum value of ROA is 0.454 and its minimum value is -0.223. This shows that the MFIs included in the sample in the study period was generated on average 0.10 cents in every one birr investment they made on total asset and the profitable MFIs earned 0.454 cent of profit after tax for a single birr investment they made on total asset. On the contrary, not profitable MFIs lost 0.223 cents for one birr investment made on total assets of the firm. The Standard deviation of financial performance (ROA) is 0.122. This standard deviation ascertains the disparity of rates of return earned by MFIs. The nine explanatory variables that are displayed in the table above, capital to asset ratio, portfolio quality, management efficiency, employee productivity, gearing ratio, size and age of MFI, real GDP and inflation rate, also have different characteristics.

4.2. Correlation Analysis

This analysis is used to indicate that at what extent the explanatory variables are influential on the financial performance indicator (ROA). Correlation coefficient between two variables ranges from positive one of perfect positive relationship to negative one of perfect negative relationship. The main significance of calculating each variables correlation is to describe about the reliability of relationship to each other.

Table 4.2. Correlation matrix of dependent and independent variables

	ROA	CAR	PAR	MGE	EMP	GR	SIZE	AGE	GDP	INFL
ROA	1.0000									
CAR	0.1633	1.0000								
PAR	-0.2752	-0.1148	1.0000							
MGE	-0.6896	0.1388	0.2159	1.0000						
EMP	0.5187	0.1317	-0.1225	-0.3454	1.0000					
GR	-0.2262	-0.7283	-0.0232	-0.0191	-0.1861	1.0000				
SIZE	-0.0552	-0.3997	-0.2499	-0.2758	-0.0842	0.5787	1.0000			
AGE	0.0537	-0.4321	-0.0486	-0.1787	-0.1552	0.4364	0.5368	1.0000		
GDP	0.0501	0.1980	0.0333	0.0203	0.2416	-0.1840	-0.2213	-0.4995	1.0000	
INFL	-0.0149	0.0108	-0.0525	-0.0175	0.0550	-0.0535	-0.0816	-0.1964	-0.2219	1.0000

Source: E-views 10 output (2021)

As we can see in the table above, employee productivity is positively correlated to ROA and relatively, highly impacting to this performance indicator variable, ROA. This indicates that improve employee productivity results to increase in income. On the other hand, portfolio quality, management efficiency, gearing ratio, size and inflation seems to be negatively correlated with the financial performance measure, ROA, indicating that, when these mentioned microfinance explanatory variables increase, financial performance moves to the opposite direction. In contrary the other variables, capital asset ratio, age and real GDP were positively correlated with return on asset, indicating that as these variables increase, financial performance also increases or moves to the same direction.

4.3 Model selection

To examine internal and external factors affecting the financial performance of MFIs in Ethiopia under this study, panel regression method was applied. According to Brooks (2008), there are two types of panel estimator approaches, namely: fixed effects models (FEM) and random effects models (REM). In

order to run the regression, the study decided on the appropriate panel regression model between the two panel data estimators- fixed effect and random effect model.

The Hausman test was performed to detect the appropriateness of the model to be adopted. According to Brooks (2008), if the null hypothesis is rejected then we employ Fixed Effects method. The null hypothesis is that the preferred model is random effects and the alternative hypothesis states that the fixed effect is preferred. Decision: Reject null hypothesis if probability value is less than significance level 0.05. Accept null hypothesis if probability value is greater than 0.05.

The table below shows that the probability value (p-value) here is 1.0000 which is greater than 0.05. Therefore, according to the results presented below the study adopted Random effects model.

Table 4. 3 Hausman Test
Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f	Prob.
Cross-section random	0.000000	9	1.0000

Source: E-views 10 output (2021)

4.3. Finding of the Regression

This section presents the regression result of random effect model that was made to examine the factors affecting financial performance of Ethiopian MFIs. Accordingly, the regression result was made and coefficients of the variables were estimated via E-views 10 software package. As stated above, random effect regression model is an appropriate model used in this study. Therefore, the model used to examine the factors affecting financial performance of MFIs in Ethiopia. To test the relationship between the financial performance of the MFIs and selected internal and external determinant variables, as stated in chapter three the following linear regression model was developed.

$$ROA = \beta 0 + \beta 1\ CAR + \beta 2\ PAR + \beta 3\ MGE + \beta 4\ EMP + \beta 5 GR + \beta 6\ SIZE + \beta 7\ AGE + \beta 8\ GDP + \beta 9 INFL + \varepsilon$$

Where: β1 to β9 are the coefficients of the variables and €it is the error term.

Boi = constant term which differs across MFIs but constant over time
ROAit = Return on total asset for MFI i at time t
CARit = Capital asset ratio for MFI i at time t
PARit = portfolio quality for MFI i at time t
MGEit = management efficiency for MFI i at time t
EMPit = employee productivity for MFI i at time t
GRit = gearing ratio for MFI i at time t
SIZEit = size of microfinance for MFI i at time t
AGEit = age of micro finance for MFI i at time t
GDPit = real growth domestic product of the country
INFit = inflation rate for MFI i at time t

Table 4.4. Regression Result for factors affecting financial performance of Ethiopian microfinance institutions.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.241134	0.103791	2.323259	0.0213
CAR	0.121700	0.062494	1.947398	0.0530*
PAR	-0.336693	0.108924	-3.091078	0.0023***
MGE	-0.145599	0.012254	-11.88186	0.0000***
EMP	0.008513	0.001955	4.354422	0.0000***
GR	-0.002605	0.005903	-0.441307	0.6595
SIZE	-0.014170	0.006939	-2.041919	0.0426**
AGE	0.005317	0.002669	1.992187	0.0479**
GDP	0.049232	0.480998	0.102354	0.9186
INFL	-0.045279	0.056859	-0.796347	0.4269
R-squared	0.588882			
Adjusted R-squared	0.568326			
S.E. of regression	0.054625			
F-statistic	28.64785			
Prob(F-statistic)	0.000000			

Source: E-views 10 output (2021)
Note: ***, ** and * denote significant at 1%, 5%, and 10% levels respectively.

Empirical model of the factors affecting financial performance of Ethiopian microfinance institutions was provided as follows:

ROA=0.2411 + 0.1217CAR - 0.3367PAR + -0.1456MGE + 0.0085EMP -0.0022GR -0.0142SIZE + 0.0053AGE + 0.0053GDP -0.0453INFL+ ε

4.4. Discussion of the Regression Results

Based on the outcomes indicated in table 4.4 above, the internal independent variables, capital asset ratio, management efficiency, portfolio quality, employee productivity, size and age had statistically significant impact on financial performance of microfinance institutions. The rest microfinance specific independent variable, gearing ratio and the macroeconomic independent variables used in this study, GDP and inflation rate had statistically insignificant impact on financial performance of the MFIs. The significant variables, portfolio quality, management efficiency and employee productivity were significant at 1% significance level since the p-value for these variables was almost 0.000 and capital

asset ratio, size and age were significant at 5% significance level since the p-value for these variables were 0.0530, 0.0426 and 0.0479 respectively.

The result also shows that the coefficient of Portfolio at Risk>30 days, management efficiency, gearing ratio, size, and inflation against ROA were negative with the coefficients of -0.3367, -0.1456, -0.0026, -0.0142 and -0.0453 respectively. This described as; there was an inverse relationship between the aforementioned five explanatory variables and ROA. As a result, the increase of the above mentioned variables will lead to a decrease in financial performance. On the other hand, variables like capita asset ratio, employee productivity, age and GDP had a positive relationship with financial performance as indicated by the coefficients of 0.1217, 0.0085, 0.0053 and 0.0492 respectively. This clearly shows that there was a direct relationship between the above listed four explanatory variables and ROA.

Based on the regression result, the values of R-squared statistics and the Adjusted-R squared statistics of the model was 58.88% and 56.83% respectively. The R-squared result implies that 58.88% variation in the dependent variable (ROA) is described by the explanatory variables of the Ethiopian microfinance institutions, Capital to Asset ratio, Portfolio at Risk>30 days, MGE, EMP, GR, Size, Age, GDP and Inflation jointly and the remaining 41.12% was explained by other factors which are not included in the model, while the result of the adjusted-R squared indicates that the changes in the independent variables explain 56.83% of the changes in the dependent variable. That is Capital to Asset ratio, Portfolio at Risk>30 days, MGE, EMP, GR, Size, Age, GDP and Inflation collectively explain 56.83% of the changes in ROA. The 0.000 value of the Prob (F-statistic) indicates that strong statistical significance, which enhanced the reliability and validity of the model. Each variable is presented in detail in the following section.

A. Capital to Asset ratio

The regression results of this study indicated that the relationship between capital to asset ratio and ROA is positive (0.1217). It is statistically significant variable at 10% significance level (P-value 0.053). This reveals that for the study period 2010 up to 2019 capital strength of Ethiopian MFIs have a positive relationship with their financial performance or holding constant all other variables, increasing CAR by one unit causes to increase the ROA by 0.1217 birr. Hence, the hypothesis saying there is a significant positive effect between capital to asset ratio and financial performance of MFIs is not rejected or data did support the hypothesis. The result of this study is similar to the findings of Muriu (2011) but inconsistent with the finding of Sima (2013) and Ayayi (2009). In general, capital strength can affect financial performance of Ethiopian microfinance institutions.

B. Portfolio quality

The regression results of table 4.7 above showed that the explanatory variable portfolio at risk which was measured by Loan overdue greater than 30 days to gross loan portfolio was statistically significant at one percent of significant level (P-value 0.0023). The beta value or coefficient of this variable was -0.336693 which implies that there is an inverse relationship between portfolio at risk and performance indicator, return on asset of MFIs. This negative relationship proves that a higher portfolio at risk would tend financial performance to decrease or the higher the PAR, the more inefficient the MFI will be and, thus, the less financial performance. Accordingly, this study failed to reject the hypothesis saying, there is a significant negative relationship between quality of portfolio and financial performance of Ethiopian MFls because the data did support to ascertain. The result of the study is compatible with the findings of Sisay (2016), Sima (2013), Muriu (2011) and it is opposite to Dissanayake (2012). In general, it can be said that the portfolio-at-risk (Par>30) is the key indicator of the financial performance of Ethiopian MFIs.

IJMSRR
E- ISSN - 2349-6746
ISSN -2349-6738

C. Management Efficiency

The regression results of this study indicated that the impact of management efficiency on financial performance of Ethiopian MFIs is negative. The result shows that, a negative coefficient of -0.1456 and it was statistically significant at 1% significance level (p-value= 0.0000). The result indicated that there was an inverse relationship between management efficiency and financial performance of Ethiopian MFIs during the study period. The negative relationship revealed that holding constant all other variables, increasing operational expense on operational income, causes to decrease the financial performance of microfinance institutions, ROA. Thus, the hypothesis that states there is a positive and significant relationship between management efficiency and financial performance is rejected or data did not support the hypothesis. Therefore, the managers of Ethiopian MFIs should improve their efficiency to decrease operating expense and increase their financial performance, ROA. Generally management efficiency was a key factor affecting financial performance of Ethiopian MFIs for the study period 2010-2019.

D. Employee Productivity

As the above random effect regression output indicated that, employee productivity has a positive impact (0.0085) on MFIs financial performance (ROA). The result also showed that it was found to significantly affect the financial performance of MFIs at 1% level of significance (p-value= 0.0000). This revealed that holding other things constant, an increase in employee productivity causes to increase the dependent variable, ROA. It shows that microfinance institutions can increase their financial performance from improved employee productivity and with a better pay. This result also implies that the better MFIs pay the better employee productivity and competition among the institutions. Therefore, better pay to employee leads to enhance the financial performance of microfinance institutions in Ethiopia. Thus the hypothesis that stated earlier, there is a significant positive relationship between employee productivity and financial performance was failed to reject because data did support the hypothesis.

E. Gearing Ratio

The regression results of this study indicates that the relationship between gearing ratio/debt to equity ratio and ROA is negative (-0.0026) and it was also statistically insignificant (p-value=0.6595). This higher p-value indicating that the variable is statistically insignificant to explain the dependent variable return on asset of MFIs. This indicates that, this variable has little effect on performance of Ethiopian MFIs during the study period. The negative relationship was in line with the results of prior studies Sisay (2016), and Yenesew (2014). However, the result was opposite to Dissanayake, (2012) and Muriu, (2011). Thus, based on the regression result from the study, the study rejected the hypothesis which states gearing ratio has negative and significant relationship with financial performance of Ethiopian MFIs.

F. Size

Natural logarithm of total asset is used as a proxy of size of MFIs in the regression model. The result indicates that size is inversely related to financial performance of microfinance institutions and statistically significant at 5% of significance level (p-value=0.0426). The negative coefficient of -0.0142 implies that microfinance size has a negative causal relationship with the financial performance of microfinance institution, return on asset. This could show that, large microfinance institutions are not

effectively managing their organizational resources and they couldn't capitalize their economies of scale. Therefore the study rejected the hypothesis which states that size of microfinance institution is positively and significantly related with its financial performance of MFIs because the data did not support the result. The finding of this study was consistent with the findings of Sisay (2016) and Sima (2013) but opposite to Melkamu (2012) and Muriu (2011).

G. Age of MFIs

The regression results of this study showed that age of a MFI has a positive (0.005317) impact on ROA. The regression result also indicated that this variable was found to statistically affect at 5% significance level (P-value of 0.0479). The direct relationship between age of microfinance and financial performance of MFI in Ethiopia indicates that as MFIs mature gets experience, they increase their likelihood of achieving financial performance better than new MFIs. This indicates that age was a key factor of financial performance of Ethiopian MFIs having a direct relationship with ROA. This is also practical in Ethiopia where matured MFIs have high financial performance compared to new MFIs Thus, based on the regression result from the study, the study accepted the hypothesis which states age has positive and significant relationship with financial performance of Ethiopian MFIs. The finding of this study was consistent with the findings of S Yenesew (2014) and Yonas (2012).

H. Real GDP

Turning to the macroeconomic variables, the researcher observed that the macroeconomic variable, real GDP had a positive coefficient (0.0492). This variable was statistically insignificant even at 10 percent (P-value of 0.9186) which indicates that improvement in economic conditions did not significantly affect financial performance of Ethiopian MFls during the study period 2010-2019. The positive coefficient sign which is not beyond the researchers expectation result shows that one-unit increase in GDP contributes nearly 0.049 units to increase in return on assets. Moreover, higher GDP growth leads to higher microfinance financial performance in Ethiopia. This result is agreed with Fikremariam (2015) but inconsistent with the studies by Muriu (2011) and Sima (2013)). Therefore the hypothesis which says there is a significant positive relationship between GDP and financial performance of MFls is failed to reject since the data supported the hypothesis.

I. Inflation

Inflation was the other macroeconomic factor included in the study. The coefficient estimate of inflation (-0.0453) in this particular study revealed that a negative association with the financial performance of MFIs in Ethiopian. This implies the existence of inverse relationship among inflation and financial performance of microfinance institutions. However, this negative association was statistically insignificant (a p-value of 0.4269). Thus, the findings suggested that inflation was not a major factor that affects the financial performance of Ethiopian MFIs. Accordingly, the hypothesis saying, there is a significant positive effect between inflation and financial performance of Ethiopian MFIs not accepted because the data did not support the hypothesis formulated earlier. The result is similar with the findings of Muriu (20 11) and Fikremariam (2015).

5. Conclusions and Recommendations

5.1. Conclusions

The main objective of this study was to examine the internal and external factors affecting financial performance of MFIs in Ethiopia from 2010 to 2019. The internal factors included in this study are variables such as capital asset ratio, portfolio quality, and management efficiency, employee productivity, gearing ratio, size and age of MFIs. The macroeconomic factors included in the study are

GDP and inflation rate. Furthermore, the study used Return on Asset (ROA) as the main measure of financial performance of MFIs.

By considering the nature and objective of the research, a quantitative research approach was adopted to accomplish the stated objective of the study. The study used secondary data of 19 audited Ethiopian MFIs. The data was found from the national bank of Ethiopia. The collected data from a sample size of nineteen MFIs over the period of 2010 to 2019 were analyzed using descriptive statistics, correlation matrix and multiple linear regression analysis.

Descriptive analysis outcomes show that Ethiopian MFIs averagely generating positive ROA. This is an indication that Ethiopian MFIs generate profit in addition to their main role on poverty reduction.

Based on the descriptive and empirical evidence obtained from the econometric results in the prior chapter, the researcher generally concluded that financial performance of Ethiopian microfinance institutions are highly affected by the internal factors than external factors.

In general, the findings revealed that capital to asset ratio, portfolio quality; management efficiency, employee productivity, size and age of MFIs are the major significant factors of the financial performance of the Ethiopian MFIs. But, the result of the regression model indicated that the influences of debt to equity ratio, inflation rate and real GDP on ROA of microfinance institutions in Ethiopia are insignificant for the period study period 2010 to 2019. The relationship between financial performance indicator, ROA and capital to asset ratio, employee productivity, age and GDP were found to be positive while portfolio quality, management efficiency, gearing ratio, size of microfinance and inflation rate relationship with financial performance with financial performance were negative.

5.2. Recommendations

Based on the findings of the study, researchers would like to forward the following recommendations.

- Capital to asset ratio, portfolio at risk, management efficiency, employee productivity, microfinance size and age are significant factors of financial performance of MFIs in Ethiopia. Therefore, the managements of MFIs should give great attention in properly managing these independent variables.

- The explanatory powers of microfinance-specific variables are far more important in explaining the variability in ROA for MFIs in Ethiopia than external variables. Thus, MFIs in Ethiopia should be concerned about internal structures and policies in fashioning out strategies to improve their financial performance.

- The managers and policy makers of MFIs should give high concern in the motives of MFIs that is the institutions including the two motives together. Meaning the managers and policy makers should give due attention for both eradicating poverty and financial sustainability of MFIs.

- The government should create conducive environment by availing different facilities and infrastructures for MFIs as they are main players in achieving countrywide goals.

- Enhancing the capacity and skill of employee and management through continuous trainings, experience sharing and provision of advice and consultancy are essential to make better financial performance of MFIs.

References

1. Alemayehu, Y. (2008).The performance of Micro Finance Institutions in Ethiopia: A case of six microfinance institutions, MSc thesis, Addis Ababa University, Ethiopia.

2. Ahlin, C., & Jiang, N. (2008). Can micro-credit bring development? Journal of Development Economics, 86:1-21.
3. Ansah-Adu, K., Andoh, C., & Abor, J. (2012). Evaluating the cost efficiency of insurance companies in Ghana. The Journal of Risk Finance.
4. Association of Ethiopian Microfinance Institutions (AEMFIs), annual performance analysis report, Bulletin No.2-I 0
5. Ayenew, T. (2019), Assessment of factors affecting performance of microfinance Institution in the case of Debre Birhan town Administration, Debre Birhan University, Ethiopia
6. Ayres, C. (2019). Benefits of microfinance in the developing countries.
7. Belainesh, D. (2016). Financial performance analysis of Ethiopian micro financing institutions (Doctoral dissertation, St. Mary's university)
8. Belayneh, H. (2011) Determinants of Commercial Banks Profitability: An Empirical Evidence from the Ethiopia Commercial Banks, MSc thesis, Addis Ababa University, Addis Ababa Ethiopia
9. Berhanu, W. (2019). Determinants of Financial Performance of microfinance institution in Ethiopia: A case study of Damota branch, Wolaita Sodo University
10. Eyerusalem, K. (2014). Performance of Selected Microfinance Institutions in Ethiopian: A Balanced Scorecard Approach. Addis Ababa University, Ethiopia
11. Fikremariam, Z. (2015). Determinants of Micro Finance Profitability: The Case of Selected Micro Finance Institutions in Ethiopia. Jimma University, Ethiopia
12. Gallardo, J., Ouattara, K., Randhawa, B., & Steel, W. F. (2005). Comparative review of microfinance regulatory framework issues in Benin, Ghana, and Tanzania. The World Bank.
13. Helms, B. (2006). Access for all: Building inclusive financial systems. The World Bank.
14. Hermes, N. & Hundon, M. (2018). Determinant of microfinance institutions: A systematic review.
15. Imai, K. S, Gaiha, R. Thapa, G. Annim, S. k., and Gupta, A. (2012) financial performance of microfinance institution a macroeconomic and institutional perspective discussion paper series, RIEB, Kobe University, japan.
16. Kumar, R. (2011). Research Methodology: A Step –By- Step Guide for Beginner 3rd ed. London, thousand Oaks, CA and New Delhi, Sage
17. Nelson, S. (2011) Performance Assessment of Micro Finance Institution in the Ashaiman Municipality, MSc thesis.
18. Noreen, S. Role of Microfinance in empowerment of female population of Bahawalpur District. International Conference on Economics and Finance Research, (2011). 318-324.
19. Melkamu, T. (2012). Determinants of operational and financial self-sufficiency: An Empirical Evidence of Ethiopian Microfinance Institutions, MSc thesis, Addis Ababa University, Addis Ababa Ethiopia
20. Robinson, M. S. (2001). The microfinance revolution: Sustainable finance for the poor. The World Bank.
21. Sima, G. (2013) Determinants of profitability: An empirical study on Ethiopian MFls. MSc thesis Addis Ababa University.
22. Sisay, H. (2016). Determinants of Financial Performance of Microfinance Institutions in Ethiopia. MSc Thesis, Addis Ababa University, Ethiopia
23. Tolosa, N. & Pasha, S. A. M. (2014). Performance of loan repayment determinants in Ethiopian micro finance-An analysis. Eurasian Journal of Business and Economics, 7(13), 29-49.
24. Vilkar, A. S. (2016). Challenges faced by microfinance institutions.

25. Waithaka, S. M. (2013). Factors that influence the social performance of microfinance institutions in Kenya.
26. Wolday, A. (2000). Review of MF Industry in Ethiopia: Regulatory frame work and Performance, Occasional paper No. 2 AEMFI.
27. Wolday,A. (2007). Managing Growth of MFIs: Balancing sustainability and reaching large number of Clients in Ethiopia, AEMFI
28. Yenesew, A. (2014). Determinants of financial performance: a study on selected micro finance institutions in Ethiopia, Doctoral dissertation, Jimma University.
29. Yonas, N. (2012) Determinants of Financial sustainability of Ethiopian microfinance institutions, MSc thesis, Addis Ababa University