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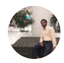
Article · April 2020

2 authors:

Uvaneswaran S M
Wollo University



Mohammed Adem
Wollo University

International Journal of Multidisciplinary Sciences and Advanced Technology
ISSN 2708-0587, Volume 1, NO 4 (2020) pp. 63-73
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A Triangulation Analysis of Operational Performance and Profitability of Microfinance Institution in Amhara Region-Ethiopia

Uvaneswaran S.M [1]
Mohammed Adem[2]

[1] *College of Business and Economics, Wollo University, P.B.No:1145,Dessie, Ethiopia.*
E-mail: uvaneshsm@gmail.com
[2] *College of Business and Economics, Wollo University, P.B.No:1145, Dessie, Ethiopia.*
E-mail: abusehlamam@gmail.com

Abstract: The microfinance institutions(MFI) in Ethiopia play a significant role in alleviating poverty in the areas where the society has no or limited access to financial service provisions. There are 39 micro financing institutions serving the poor in Ethiopia and act as an effective anti-poverty strategy all over the country. This paper was attempted to cover two MFI's operating performance on profitability in Amhara region by taking 2015 to 2019 as financial period limits to accomplish the objective. Mixed method design was adopted and the financial statement of the organization were used to measure the operational and profitability performance and also triangulate with secondary data that is collected using interview from Managers, employees of MFI's and also Focus group discussion. Descriptive statistics and partial correlation are used to analyze the data. The outcomes highlight the association between operating variables and profitability of MFI's will helps to offer worthwhile financial product in order to serve better to downtrodden community.

Keywords: Micro Finance Institutions**,** operational performance, profitability, triangulate data, Key informants, Focus Group Discussion

1. Introduction

Poverty is generally considered as a situation in which the underprivileged do not have adequate food and shelter, lack access to education and health services, are exposed to violence, and find themselves in a state of unemployment, vulnerability and powerlessness. The most common approach to the measurement of poverty is based on incomes or consumption levels. It is widely understood that an individual is considered poor if consumption or income level falls below minimum level necessary to meet basic needs i.e. poverty line.

To put in perspective, poverty is the major problem in most developing economies. In these economies, it is argued that among others absence of access to credit is presumed to be the cause for the failure of the poor to come out of poverty, meeting the gap between demand and supply of credit in the formal financial institutions frontier has been challenging (Von Pischke, 1991). In fact, the gap is not aroused merely because of shortage of loan-able fund to the poor rather it arises because it is costly for the formal financial institutions to lend the poor. Lending to the poor involves high transaction cost and risks associated with information asymmetries and moral hazards (Stiglitz & Weiss, 1981). Nevertheless, in several developing economies governments have intervened, through introduction of microfinance institutions to minimize the gap then allow the poor access credits.

The role of micro finance institution in alleviating poverty and creating job opportunity in Ethiopia is significant. Ethiopia as a "Youth populated" country, creating jobs opportunity is at the heart of political debates and policy analysis. Therefore, this paper shows the operational performance and profitability of microfinance institution in Amhara region particularly to Dessie area. Furthermore, Operation means a series of functions and tasks that are involved in a single process to make the work as efficient as possible and the operational performance indicates to measure against standard or prescribed indicators of effectiveness, efficiency like portfolio quality to be answered sustainability issue and environmental responsibility such as cycle time, productivity, waste reduction, and regulatory compliance. Finally, the profitability of the MFI's is measured in terms of return on asset (ROA) which means the ratio that how the company's assets are utilized in generating revenue.

2. Literature Review

In Ethiopia, though the numbers of MFIs are few, and the studies relating to operational performance and profitability of microfinance institution are also limited. Certain studies are conducted in Micro Finance Institutions during the period 2007 to 2018 but most of studies are uncovered required variables and also irrelevant to this paper such as Birhanu (2007) conducted the study on the performance of Ethiopian MFIs used few internal factors and didn't show determinants of profitability. Similarly, Alemayehu (2008) tried to see the performance of the institutions in case of six MFIs where he considered profitability and sustainability, asset and liability management, efficiency and productivity but ignored the portfolio quality of the institutions and also other external factors.

To supplement to the above, Ejigu, (2009) attempted to compare the performance of Ethiopian MFIs with the micro banking bulletin bench marks; where the study concluded that Ethiopian MFIs are poor performers. Further, Melkamu,(2012) also uncovered the determinants of operational and financial self-sufficiency of Ethiopian MFIs. The study considered only 12 MFIs in the country and his conclusion ended up by saying Ethiopian MFIs are performing good compared with their African peers but he failed to mention the bench mark used. Dechasa, seifu, Ashenafi,(2018) also executed a research on factors affecting profitability of MFIs. (A study of in Southern Nation Nationalities Peoples Regional state) (SNNR), and the study concluded that financial structure and age are key factors affecting the profitability of MFI in SNNR and the recommendation to the management that to develop good lending and borrowing policy and also try to manage challenges from past experience. Given the disparity, lack of conclusive finding of the already attempted studies is instructive to undertake the operational performance and profitability of microfinance institution in the Dessie area because MFI must be profitable for their sustainable operation of the long run goal.

Therefore, the main objective of the paper is to find out the operational performance and profitability of two MFI's and fill the gap in the context of Ethiopian MFIs. In addition, to examine the relationship among variables such as, dependent variable of profitability indicator Return on Asset (ROA) with the independent variable of operational performance indicators Total asset, borrowers per credit officer, outstanding loan per credit officer, loan in arrears and cost per money lent.

3. Methodology

In the attempt to conduct a research, there are 39 microfinance institution in Ethiopia registered under National bank of Ethiopia proclamation number 40/1996. Out of 39 MFI's, two microfinance institutions were selected based on geographical area and establishment year in Amhara region. In the region, there are only two MFI's, such as Amhara credit and Saving Institutions (ACSI) and Vision Fund Micro Finance Institutions (VFMFI). The VFMFI was established as Non-governmental organization affiliated not more than ten years (established in 2008 GC) where as ACSI is government affiliation and it is the largest institution and it accounts more than twenty years; because of the above reasons these two MFI's are selected in the Dessie area.

To collect the data from these two MFI's, mixed method approach was implemented, it means sequential explanatory strategy that is perspective of applying quantitative data followed by the collection and analyses of qualitative data. Moreover, secondary data was collected from annual financial reports of the ACSI and VFMFI institutions such as Balance sheet and income statement of 2015-2019 and the loan report of the above said period also taken from operational report of MFI's. Blended with the qualitative data collected by interview of Managers, employees (called as Key Informants) and also having more than two years of experienced clients with loan considered as Focused Grouped Discussion (FGD) participants. With this regard, researcher contacted two managers that mean one from ACSI and one from VFMFI. The maximum sizes of each FGD are constituent of 6-8 informants and in total two FGD conducted as one group to each MFI as per the convenience of the researcher.

The basic concept is that integration of quantitative and qualitative data maximizes the strengths and minimizes the weaknesses of each type of data. Therefore, both types of data are triangulated and synthesized so that the bigger picture of operational performance and profitability of microfinance institution in the study area will be portrayed by connecting the analysis of the quantitative results with the qualitative one.

Therefore, to facilitate the computation of ratios and indicators all information on the financial statements of each institution is converted in to a common format developed by The small Enterprise Education and Promotion (SEEP) network and Alternative credit technologies (ACT). The data is analyzed using different statistical tools like Descriptive statistics, partial correlation and ratio analysis to address the scientific evidence in financial and operational performance and impacts to MFIs. To reveal performance of MFIs very well, five years' data from 2015 to 2019 was used to see the trend in operational performance and profitability of two MFIs because it is difficult to get enough data source from the institution due to time, financial problems and also VFMFI has been in operation since 2008 as a regulated and legally registered microfinance service provider in Ethiopia. Further, the regression model assumptions were not applied due to the data size is smaller and the years of establishment of these two MFI's are different.

4. Main Results

The quantitative and qualitative data collected from Micro Finance Institutions are presented in two parts by applying descriptive statistics and Inferential statistics to fulfill the objective of the research. To measure the operating and profitability performance of MFI's the following formulae are used to find out the variable values.

Productivity (a) Outstanding loan per credit officer equals to outstanding loan/credit officer (one credit officer manage and support amount of loan dispersed). (b) Number of borrowers per credit officer = Borrower /credit officer (one credit officer manage and controlled number of clients under him)
Portfolio quality (a)Loan in arrears greater than one month = loan in arrears or outstanding loan (which shows loan not paid on the due date, it makes loan defaults or non-performing asset) (b) Cost per money lend= total expense/outstanding loan (it shows the amount of cost for one birr lend).
Profitability (a)Return on Assets (ratio) = Net income / total assets (it is financial ratio which shows that how much percentage of profit earned through assets)

4.1 Operational Performance of Micro Finance Institutions

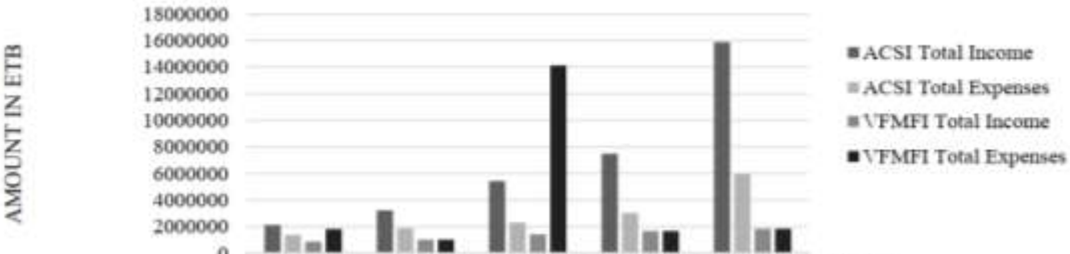
The ACSI and VFMFI number of clients were relatively increasing from year to year as per the table 1. Considered to the establishment age were not effectively add the poor clients which is below than 50% to the standard Consultative Group to Assist the Poor (CGAP) of 900 clients and it must be handled by one credit officer above ten years of MFI experience.

Table 1; Operational Information of Micro Finance Institution
(Source: operational report of MFIs 2015-2019)

S.No	Description	Years of Operation									
		ACSI					VFMFI				
		2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
1	Number of Werada or Kebele covered	10	10	10	10	10	10	10	10	10	10
2	Number of Credit Officer	2	2	2	3	3	4	4	4	5	6
3	Number of Staff	10	11	11	12	12	8	8	8	9	10
4	Number of Borrower /Client	1033	1100	1033	1231	1516	804	1043	1994	2063	2439

It is ostensible that the two MFIs weighed from: the number of customers; their respective goals in reducing poverty and organizational sustainability to the number of clients or borrowers were not satisfactory as per the words of Key informants.

4.2 Total Income and Total expenses of MFI's



	2015	2016	2017	2018	2019
ACSI Total Income	2115317	3235217	5433462	7488327	15885719
ACSI Total Expenses	1372475	1871165	2313846	3020209	5962798
VFMFI Total Income	874180	1015920	1414504	1654549	1831575
VFMFI Total Expenses	1801526	1015920	14144504	1654549	1831575

Figure 1 ; Total income and Expenses of ACSI and VFMFI (ETB: Ethiopian Birr)
(Source: Income Statement of MFI,s 2015-2019)

As witnessed in the below figure, by mere contrast ACSI has better revenue because of the improved loan arrangement the organization has pursued.As noted by key informants, the reason for this better revenue are diversified financial service provisions for its customers, enough repayment date according to the business type and also the organization calculated the payable debt interest through declining amortization method-a system that doesn't have a bearing on borrower's debt repayment burden.

It is evident that the total expenses of the two MFIs are increasing and interest paid for customers and individual saving is large in VFMI because their source of capital is dependent on clients saving capacity and donation. Similarly, ACSI has a better competitive expense for it their loan arrangement set in by saving deposit capacity.

4.3 Financial Statement of ACSI and VFMFI

The total asset of ACSI was more increased than that of Vision Fund. ACSI has higher total liability and total equity than Vision Fund.

Table 2; Financial Statement of MFI's (Amount in ETB-Ethiopian Birr)
(Source: Income Statement of MFI's 2015-2019)

S.No	Description	Years	ACSI (Amount)	VFMFI (Amount)
1	Total Asset	2015	35617818	6078761
		2016	42517615	9395279
		2017	50881825	10381793
		2018	71384184	12552727
		2019	133716395	19473048
2	Total Liability	2015	30516371	4765242
		2016	38415617	6680323
		2017	48499659	6122469

		2018	50715615	6418058
		2019	96957895	10783550
3	Total Equity	2015	5101477	1313519
		2016	4101998	2714956
		2017	2382166	4259324
		2018	20668569	6134669
		2019	36758500	8689498

According to the information obtained from FGD, ACSI has more saving and power of collecting money than VFMFI. On the optimistic side, scholars argued that if MFIs are aiming to maximize their respective goals they have to work on outreach expansion effort, increase the number of borrowers, and increase operational performance capacity and their profitability.

4.4 Average Loan Size of selected MFI

The average loan size means total outstanding loan divided by number of borrowers. The figure 2 depicted that ACSI's average loan size is higher than that of VFMFI.

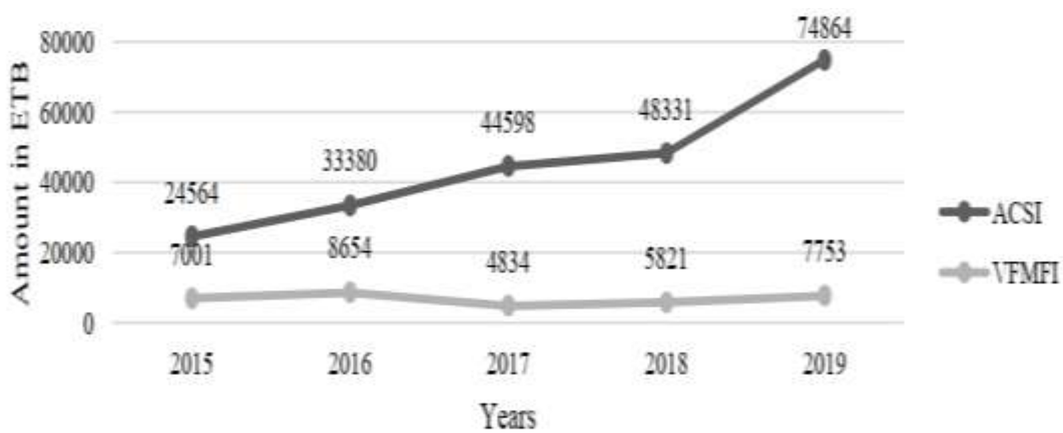


Figure 2; Average Size of ACSI and VFMFI
(Source: Operational Report of MFI's 2015-2019)

The reason is ACSI has quality loan based on client's business plan and provides high amount of money to individuals.The ACSI's average loan size is increasing by increasing rate where as VFMFI average loan size is fluctuating. Considering the above context, ACSI is far better than VFMI because their operational activity relies on promoting saving and arranging loan.

As per the argument of FGD participants, ACSI provides loan arrangement in accordance to business plan as per submission, terms of loan also as like the business up to 5 years and provide a short training before the business start-up for its clients. On the other end of the continuum, discussants in the FGD reiterated that the loan arrangement by VFMI is determined by the organization based on business plan forwarded by clients and terms of loan only up to 21 months and it's not flexible. Moreover, Key informants indicated that the organization only visits its clients when they are delayed for debt repayment.

4.5 Return on Asset of MFI's

Return on asset (ROA) showed that VFMFI has more return on asset than that ACSI as per Figure 3. This indicates that VFMFI is more profitable than ACSI. Even though, ACSI has high loan disbursement, high income, high average loan size, high income, asset, equity and liability, VFMFI has higher return on asset than ACSI.

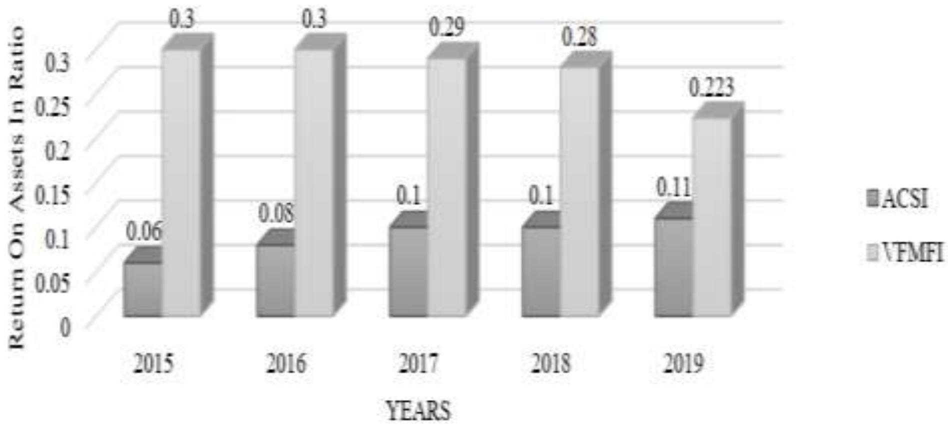


Figure 3; Return on Assets of ACSI and VFMFI
(Source: Financial Statement of MFI's 2015-2019)

Concerning to this, certain information is gathered from FGD that the interest rate of VFMFI is (18%) flat interest rate calculation, whereas ACSI's interest rate is from (9%-18%) declining amortization interest rate calculation according to the product, VFMFI has high interest rate, low saving and expense than ACSI. The VFMI strategy of interest were not recommended because it will decrease operational performance, quality of loan, saving capacity and also affects the loyalty of institution.

4.6 Borrowers/Clients per credit officer/Case load

It can be inferred from the below figure, one credit officer manages and controlled the number of clients or borrowers based on standard. While comparing ACSI with VFMFI, the former is better than the later at the beginning three consecutive years and VFMFI borrowers/clients/ credit officer/load case is more than ACSI.

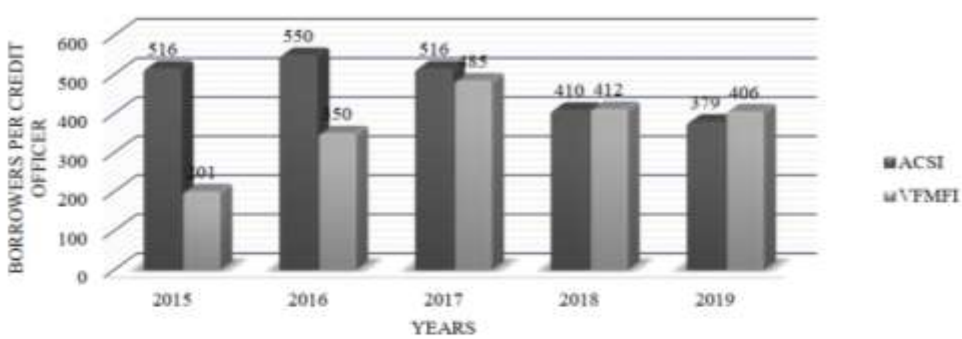


Figure 4; Borrowers per credit officer / case load
(Source: operational report of MFIs 2015-2019)

According to micro finance institution standard (CGAP Consultant group), borrowers/clients per credit officer/case load is 900. Therefore, the selected MFI's clients per credit officer/case load is below than the standard norms.

4.7 Outstanding Loan per Credit Officer of ACSI and VFMFI

The figure 5 indicates that the both micro finance institution have capacity to manage money as increased but both the MFI's have big difference in Kebele coverage and staffs as per table no.1

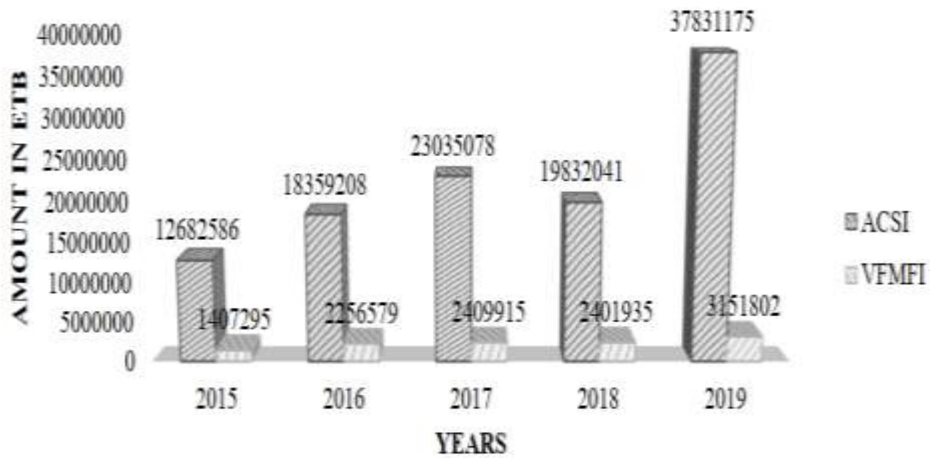


Figure 5; Outstanding loan per credit officer of MFI's
(Source: Operational Report of MFI's 2015-2019)

For instance, the ACSI data for the year 2018 shows that the loan arrangement managed by one person is more than 80% in contrast to VFMI. In turn, this means ACSI has created high loan arrangement to its customers with a little expense thereof.

4.8 Repayment Rate and Loan in Arrears

Regarding to loan in arrears, ACSI has no loan in arrears almost when compared with VFMFI in the given operational years. This indicates that it has good loan quality and operational performance. According to information obtained from key informant interview, ACSI gives financial and non-financial services to its clients like strong client screening mechanism, giving training, advocacy, orientation of new clients and experience sharing. Similarly, training given to the clients was about the issues like amount of loan proved, term of loan, amount of interest rate and other relevant and updated information such as business training, about marketing, record keeping and pricing delivered for every client on voluntary basis for three days.

Table No: 3-Repayment rate and Loan Arrears of MFI's
(Source: Operational Report of MFI's 2015-2019)

S.No	Description	Years of Operation									
		ACSI					VFMFI				
		2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
1	Repayment rate (%)	100	100	100	100	99.98	98.52	98.6	96.77	96.2	97.44
2	Loans in Arrears	-	-	0.05	-	0.024	1.48	1.44	3.28	3.8	2.55

As per FGD in VFMFI, the reason for non-repayment of loan on due date is the loan size is smaller than the business plan amount, short period of terms loan, charges higher interest rate, there is no accessibility of different type of loan and did not have enough non-financial service facilities. Hence, ACSI is better performer than VFMI.

4.9 Cost per Money Lend of Selected Micro Finance Institutions

Cost per money lent indicates the operational and financial sustainability of the institution. When MFI incurred high cost per one Birr lent, then it shows lower operational performance in turn it will decrease the profitability as well as sustainability. From the figure 6, ACSI incurred low amount of cost per one Birr than VFMI to lend money.

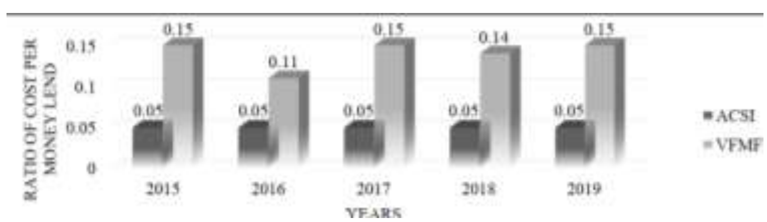


Figure 6; Cost per money lend of MFI's for one ETB
(Source: Operational report and Financial Statement of MFI's 2015-2019)

Therefore, ACSI ensured its performance in profitability and sustainability more than Vision Fund Microfinance institution. Similarly, the information obtained from key informant interview, ACSI controls its loan quality start from client screening up to final payment and gives their loan based on the client's business plan.

4.10 Partial Correlation

To find out the relationship between profitability and Operational performance of MFI's partial and semi partial correlation were applied.

Table 4; Partial and Semi partial correlation of ROA with other independent variables
(Source: Results from STATA 14 based on the data of MFIs 2015-2019)

S.No	Variables	Partial Correlation	Semi partial correlation	Partial Correlation ^2	Semi partial correlation. ^2	Significance value
1	Return on Asset	-0.1578	-0.0398	0.0249	0.0016	0.7653
2	Number of Borrowers per credit officer	-0.6234	-0.1984	0.3886	0.0394	0.1861
3	Outstanding loan per credit officer	-0.1544	0.0389	0.0238	0.0015	0.7703
4	Loan in Arrears	0.4797	0.1361	0.2301	0.0185	0.3357
5	Cost per money lend	0.4599	0.1289	0.2115	0.0166	0.3588

The profitability of MFI's is measured by Return on Assets (ROA) as dependent variable and operational performance are measured by Total asset, Number of borrowers per credit officer, Outstanding loan per credit officer, loan in arrears, cost per money lent as independent variables. ROA it is the income after tax and interest proportion to total asset, when it is income divided to total asset ratio.

It can be inferred from the above table that ROA, the partial correlation result of ordinary least square (OLS), with total asset shows that the explanatory variable of total asset negatively correlates with dependent variable of ROA. The ROA ratio increase at any point total asset ratio will proportionately decrease. Similarly, there is an indirect or opposite relationship or negatively correlated of the number of borrowers per credit officer and outstanding loan per credit officer with ROA. Moreover, when there is no non-performing asset then it is called as repayment rate is 100 % which means positive or increasing the quality of loan and also no additional cost then ROA is positively correlated. Finally, the cost per money lend indicates increase in profitability and efficiency of the institution because it is positively correlated with dependent variable. Hence there is a relationship between the profitability and operational performance of MFI's based on the significance value.

5. Conclusion and Recommendations

From the triangulation analysis gathered from Key informants, Focus Group Discussion and Secondary data it was found that the source of finance for MFI is saving collected from different clients and donation. For this, it pays high amount of interest for saving to cover the cost and profit maximization and disburses high amount of loan for its customers. The Outstanding loan is highly productive, because it increases the outreach to alleviate poverty. Further, Quality of loan increases the productivity of the institution, when there is no loan in arrears and its repayment is 100%.

The MFI must consider their clients screening; its character, condition, capacity and their credit worthiness. Gives non-financial services and improved their service quality, diversified their product, increase loan size based on business plan of the client and flexibility in term loans. To conclude, micro finance institutions has tremendous positive impact on the country to alleviate poverty, at individual, family and public as large, the below suggestions should be encouraged for the sake of wellbeing of the poor and also to curb the poverty in the country.

The MFIs has to allocate more of their assets into productive user such as loans rather than current assets or fixed assets and also use commercial source of credit as development property. The MFI's should expand the Woredas/Kebeles coverage and recruit the credit officer to fulfill the CGAP standards. The loan must be based on the business plan of clients and have to use diversified into various financial product to increase loyalty among the borrowers.

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