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ANALYSIS OF OPERATING EFFICIENCY OF SELECT MICROFINANCE INSTITUTIONS

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ABSTRACT

The paper has attempted to analyze the operating efficiency of select Micro Finance Institutions based in Uttar Pradesh. Micro Finance Institutions (MFIs) incur high transaction costs in serving the poor since managing small transactions is more expensive than servicing a larger borrower. Further, MFIs incur costs in reaching out to the poor in distant rural hinterlands. Conducting frequent meetings, door delivery and hiring a large team of field officers for monitoring, loan utilization checks and repayment involves a huge cost. Unlike the commercial banks, MFIs are resource constrained entities. They rely on debt funding which adds up to their cost. At the same time, MFIs need to be financially sound to sustain its operations. In such a scenario, MFIs charge high interest rates to cover the costs of borrowing. The paper tries to investigate the relationship between yield and efficiency of MFIs. The paper is based on primary data of 23 MFIs operating in different parts of Uttar Pradesh.

KEYWORDS:*Microfinance,Microfinance Institutions, Operating Efficiency*

INTRODUCTION

Poor people in developing countries lack access to formal financial services and this problem tends to be very serious especially in rural hinterlands. This restricts their ability to acquire assets, start entrepreneurial activities, finance emergency needs and insure themselves against illnesses and disasters. (Zeller & Meyer, 2002)

Banks shy away from serving the poorest. Banks have asymmetric information about the borrowers. The poor also lack collateral security to offer banks. The primary issue is adverse selection which occurs when banks have incomplete information about borrowers. This results into raising overall interest rates which drives safer customers

and the banks are left with a set of risky customers. The second issue moral hazard arises when banks are unable to ensure that borrowers are making full efforts required for their projects to be successful. Banks face high transaction costs while serving the poor since handling small transactions is more expensive than servicing a larger borrower. Thus, most formal financial institutions are reluctant to serve the poor due to perceived high risks and costs associated with small transactions and relatively low profitability attached with lending to small borrowers. (NCAER, 2006)

Microfinance is a market based strategy for poverty reduction, free of the huge subsidies and grants on which the DFIs were dependent.

(Armendariz et al., 2010) It offers ways of unlocking the productive potential of the poor by having small businesses, reducing poverty and thus fostering social change. (Ledgerwood, 2010)

Financially self- sufficient microfinance institutions are able to deliver financial services to a large number of poor at interest rates which enable them to cover their costs both operating and financial costs.

Sustainable microfinance is carried out by institutions that deliver financial services to the economically active poor at interest rates that enable the institutions to cover all costs and risks and generate a profit. It is the institutional profitability which makes large scale formal sector financial outreach possible. Subsidized MFIs have limited capital and thus do not have the capacity to reach low income households with wide access to credit. (Robinson, 2001) It is the financially self-sufficient MFIs that can meet the demand for microfinance on a global scale. The emphasis on outreach to poor borrowers is the hallmark of microfinance revolution which can only be achieved with profitable institutions whose lending interest rates are able to cover the costs and risks associated with large scale financial intermediation. Any MFI that does not cover costs may endanger its long run ability to reach out to the poor.

It is in this background that the paper tries to assess the cost efficiency of select microfinance institutions in Uttar Pradesh.

The state has become a lucrative microfinance market due to its socio economic position. Despite allocation of large funds from various social security schemes like Integrated Rural Development Programmes, Swarnjayanti Gram Swarozgar Yojana, there has been little impact on the poverty alleviation in the state. As per Census of India 2011, Uttar Pradesh has the maximum number of people living in rural areas. 18.62 percent (15.5 crore) of the country's rural population lives in Uttar Pradesh. 40.9 percent of the total population live below the poverty line in rural areas of the state as against the national average of 37.2 percent. However, if factors beyond income are considered (Multidimensional Poverty), about 68.1 percent of the population in the state are poor. Further, the monthly per capital income of the rural lot in UP is Rs 768 against the national average of Rs 816. In addition to the above, employment scenario in the state is quiet pathetic, which is reflected by the meager work force participation rate. Demographically, UP is one of the least advanced states in the country.

CONCEPTUAL FRAMEWORK

Financial Performance is mainly a function of revenue and expenses. Revenue is received through interest and fee while expenses include funding costs i.e. interest paid on debt and depositors, operational costs such as transportation, staff, premises, among others and loan loss provisioning expenses.

The focus on financial performance and efficiency has stimulated research in this arena. Hulme and Mosley (1996) provide alternative measures of financial performance of some microfinance institutions. Similarly, Yaron (1992) has used Subsidy Dependence Index to indicate how high the interest rates has to be charged from the borrowers to cover the operating costs. Morduch (1999) provides a similar work in the context of Grameen Bank. He shows that in order to become subsidy independent, Grameen Bank needs to increase the lending rates by some 75% between 1985 and 1996.

Cull, R., Demirguc – Kunt, A. and Morduch, J. (2005) explores patterns of profitability, loan repayment and cost reduction with unusually high quality data on 124 microfinance institutions in 49 countries. The paper finds that individual based lenders that charge higher interest rates are more profitable than others. However, beyond a point profitability suffers and evidence of greater loan delinquency is seen. In contrast, for solidarity group lenders, financial performance tends not to improve as yields increase. The paper also finds that larger loan sizes are associated with lower average costs. Apart from this, it finds that financially self-sustaining individual based lenders tend to have smaller average loan size and lend more to women suggesting that pursuit of profit and outreach to the poor go hand in hand.

Gary Woller, Mark Schreiner (2002) examines the determinants of financial self-sufficiency among thirteen village banking institutions over a three-year period. It was found that interest rates, administrative efficiency, loan officer productivity, and staff salaries are significant determinants of financial self-sufficiency.

Hermes, N., Lensink, R. and Meesters, A. (2007) in their study on Outreach and Efficiency of Microfinance Institutions has used stochastic frontier analysis to examine whether there is a tradeoff between outreach to the poor and efficiency of MFIs. By using a sample of more than 1300 observations, the study suggests that outreach and efficiency are negatively correlated. The study finds that MFIs that have lower average balances are less efficient. It also finds evidence that MFIs that target women borrowers are less efficient. The study suggests that

improving efficiency may only be achieved if MFIs focus less on the poor. It also suggests that group lending practices are generally less costly. It also supports the view that more recently established institutions are more efficient. Although a number of studies have been done on tradeoff between outreach and sustainability but this one uses a larger dataset, containing information for a large number of MFIs over a longer period of time than any of the previous studies in the field. It has also used different measures of sustainability. The idea is to focus on cost efficiency of microfinance institutions.

Masood Tariq, Ahmad Izhar (2011) has made a study to measure the efficiency level and its determinants of a sample of microfinance institutions operating in India by applying stochastic frontier approach for unbalanced panel of 40 microfinance institutions for the 2005-08. It has been found that mean efficiency level of microfinance institutions is quite low but it increases over the period of study. Age of microfinance institutions is positive determinant of efficiency level but size does not matter much. Higher outreach is associated with higher efficiency which negates the general perception of tradeoff between outreach and efficiency.

Alain de Crombrugghe, Michel Tenikue and Julie Sureda has used regression analysis to study the determinants of self-sustainability of a sample of microfinance institutions in India. These institutions stand out by their ability and willingness to report financial and operational data to Sa-Dhan, a know-how sharing organization. The report investigates particularly three aspects of sustainability: cost coverage by revenue, repayment of loans and cost-control. The results suggest that the challenge of covering costs on small and partly unsecured loans can indeed be met, without necessarily increasing the size of the loans or raising the monitoring cost. The analysis suggests other ways to improve the financial results, like a better targeting of the interest rate policy or increasing the number of borrowers per field officer especially in collective delivery models.

OBJECTIVES
The paper seeks to analyze the operating efficiency of select microfinance institutions in Uttar Pradesh. It tries to investigate the relationship between yield and efficiency of MFIs.

METHODOLOGY
The study is focused on analyzing the cost efficiency of MFIs operating in Uttar Pradesh. Close to 25 MFIs operate in UP. Panel data on 23 microfinance institutions (MFIs) operating in Uttar Pradesh has been taken for a period covering 4 years from 2010 to 2014. The MFIs have been further categorized based on gross loan portfolio to assess

the changes in expenses and revenue based on size of MFIs. The data has been sourced from Microfinance Information Exchange (MIX) and annual reports of MFIs. MIX is a global web-based microfinance information platform. It is a US-based non-profit provider of performance data on MFIs, funders, networks and service providers dedicated to serving the financial needs of low-income clients. The mission of MIX is to strengthen the microfinance sector and financial inclusion in general by promoting transparency. MIX offers access to financial and social performance information covering approximately 2000 MFIs. The institutions were selected based in large part on the quality and extent of their data. The sample MFIs are representative of the entire population.

Various measures have been used globally to measure efficiency of MFIs, many of which have been recognized as standard indicators. SEEP has set a framework for analyzing the financial condition of an MFI. It analyzes financial efficiency by ratios like Cost per unit of money lent, Cost per loan made, Number of Active borrowers per credit officer and Portfolio per credit officer. Similarly, PEARLS is a system of 39 financial ratios that the World Council of Credit Unions (WOCCU) uses worldwide to monitor the performance of credit unions. 'P' stands for Protection. Protection is measured by comparing the adequacy of the provisions for loan losses against the amount of delinquent loans. It includes 5 ratios. 'E' stands for Effective financial structure. The 8 ratios included in this determines the growth potential earnings capacity and overall financial strength.

The efficiency indicators used in the study includes 'Operating Efficiency Ratio' and 'Cost per Loan'. The *'interest rates'* on microcredit has been measured by 'yield on gross portfolio' which is the average interest and fee on loans. It gives a better picture of the total costs for a borrower. Of course, there are other indicators too that throw light on the performance of MFIs. However, we have selected the most important indicators which together provide a reasonable overview of efficiency of MFIs.

a) Operating Expense/Loan Portfolio:-
The operating expenses include personnel expenses and administrative expenses but exclude financial expenses and loan loss provision expenses. OER is the most widely used indicator for efficiency. It measures the institutional cost of delivering loan services. (Technical Guide, MicroRate, 2003) It allows a quick comparison between an MFIs portfolio yield with its personnel and administrative expenses – how much it earns on loans versus how much it spends to make and monitor them. This ratio provides an indication of the efficiency of the lending

operations of the MFI and hence it is also called as "Efficiency" indicator.

$$Operating\ Cost\ Ratio = \frac{Operating\ Costs}{Average\ Portfolio\ Outstanding}$$

Successful MFIs have OCR of between 13 and 21 percent. As per the standard proposed by SADHAN, the OCR should not exceed 20 percent.

b) Cost per Loan:-

Cost per Loan is the cost incurred in providing credit. It provides an insight into how efficiently the organization is operating.

$$Cost\ Per\ Loan = \frac{Operating\ Expenses}{Average\ Number\ of\ Loans\ Outstanding}$$

c) Yield on gross portfolio:-

It measures how much the MFI actually received in cash interest payments from its clients during the period. The nominal yield on gross loan portfolio indicates the portfolio's ability to generate cash financial revenue from interest, fee and commissions (CGAP, 2003). Cull et al (2007) studied the relationship between financial performance and real yield of MFIs and found positive and significant relationship between the two.

$$Portfolio\ Yield = \frac{Cash\ Financial\ Revenue}{Average\ Gross\ Portfolio}$$

Portfolio yield is the primary indicator of an institution's ability to generate revenue to cover its financial and operating expenses.

DATA ANALYSIS AND FINDINGS

Reaching the poor and providing them with credit may be very costly. Making very small loans involves high transaction costs in the form of screening, monitoring and administrative costs. MFIs incur high transaction costs while serving the poor since handling small transactions is more expensive than servicing a larger borrower. Further, MFIs incur costs in reaching out to the poor in distant rural hinterlands. Conducting frequent meetings, door delivery and hiring a large team of field officers for monitoring, loan utilization checks and repayment involves a huge cost. Thus, the costs associated with providing microfinance is much more expensive than providing banking services because of high transaction and information costs. As a result, MFIs charge higher interest rates on loans. Conning in his 1999 paper concludes that MFIs need to be sustainable as reaching the poorest of the poor is more expensive than reaching other segments of the market as there is no fixed lending.

Table 1: Efficiency of MFIs operating in Uttar Pradesh

Efficiency Indicator	2010-11	2011-12	2012-13	2013-14
OER	18.46	14.22	11.73	10.56

As MFIs stabilize in terms of growth and sustain their operations, OER declines as economies of scale sets in and costs reduce. The falling operating cost ratio is supported by the *"Learning by Doing"* concept. MFIs over a period of time find sustainable ways of doing business and thus achieve higher levels of efficiency and productivity. With an increase in size and experience, MFIs are expected to operate more efficiently. (Armendariz and Morduch, 2004)
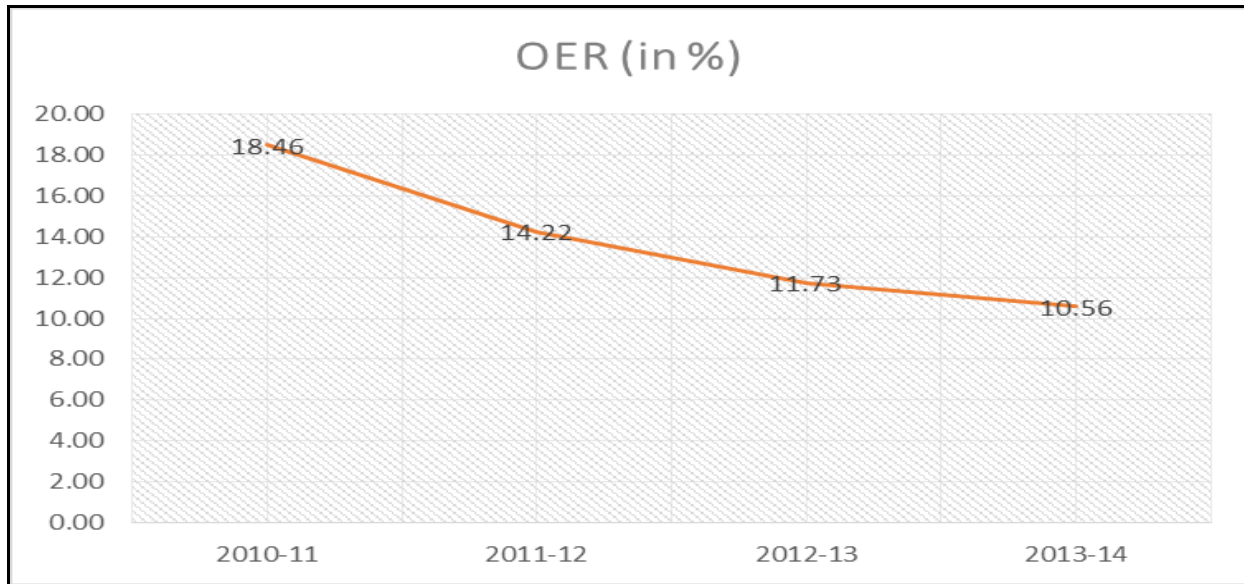
Figure 1: OER Of sample MFIs

There has been a considerable reduction in the operating costs of MFIs since 2010-11 which is indicated by the falling trend line.

Table 2 highlights the cost incurred per loan spent by MFIs operating in Uttar Pradesh. It declined considerably from 2010 onwards. However, an increase was seen in the year 2013-14. MFIs in an urge to increase their market share are reaching 'Frontier Markets' which involves a cost.

Table 2: Cost per Loan of MFIs

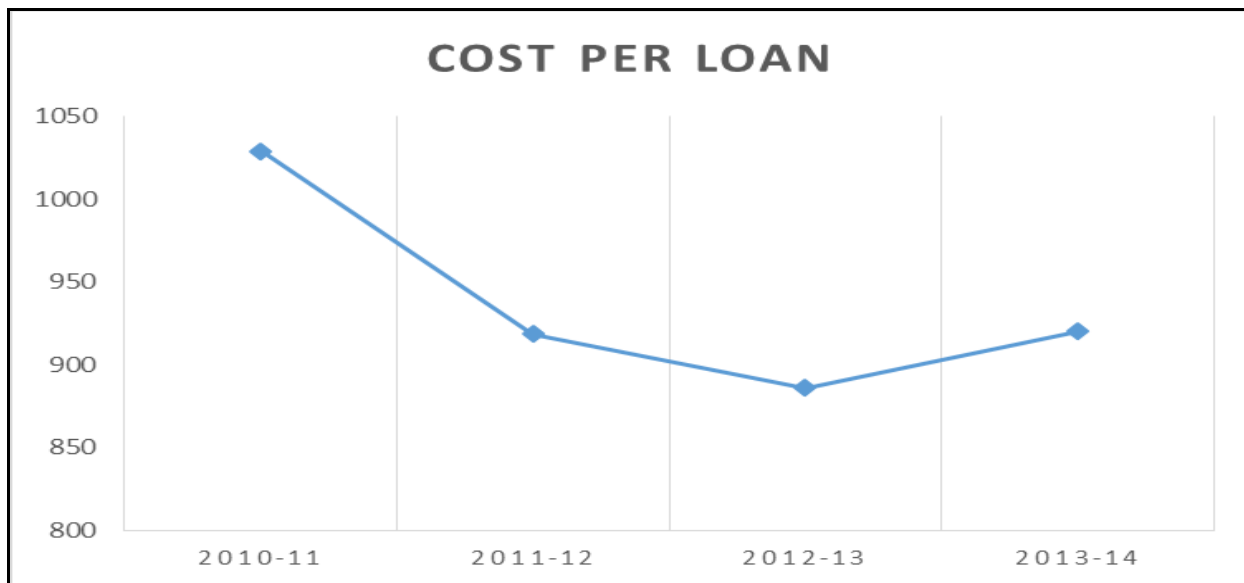| Efficiency Indicator	2010-11	2011-12	2012-13	2013-14
Cost per Loan	1029	919	886	920

Figure 2: Cost Per Loan of MFIs

Yield includes the interest income and processing fee from the loan portfolio. Among the various categories of MFIs based on size of MFIs, MFIs having a GLP of more than Rs 500 crore charge less interest rates. The average yield of such MFIs is 21.59% compared to the average yield of 24.85% for MFIs having a GLP of less than Rs 100 crore.

Interest rates on microcredit cannot be lower than the rates charged by commercial banks because of the costs associated with processing loans and a high default risk.

As seen from Figure 3, the average yield of MFIs has shown a decline from a high 30.77% in 2010-11 to 19.47% in 2013-14. A falling yield corresponding to a declining interest rates indicates that MFIs are passing on the benefits of reducing costs to the borrowers.

Table 3: Yield of MFIs operating in Uttar Pradesh

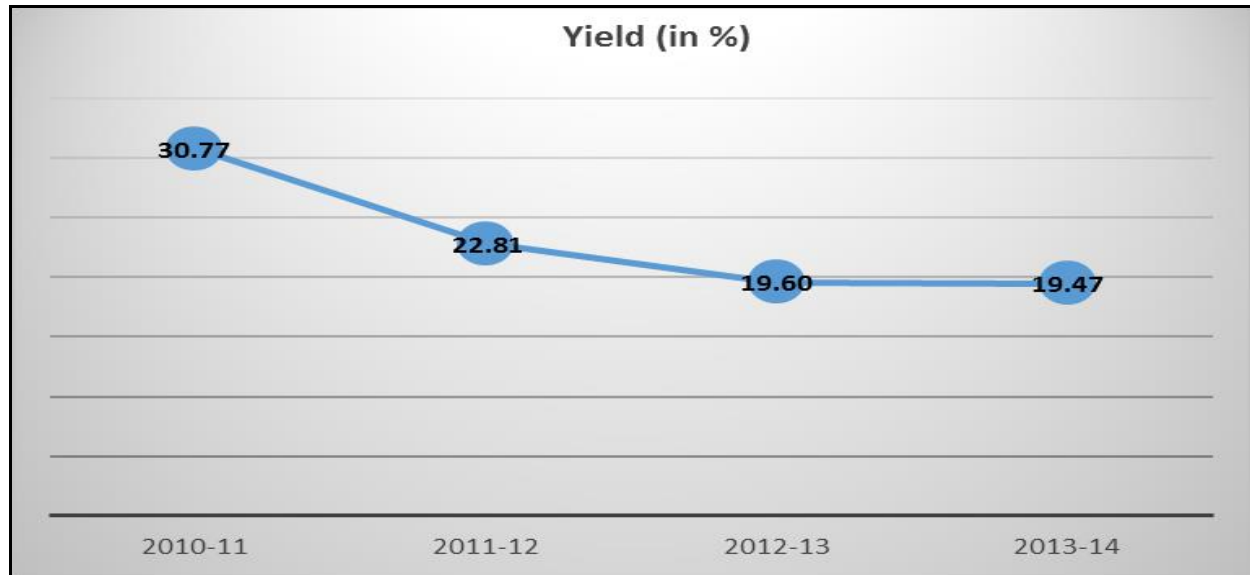| Revenue Indicator	2010-11	2011-12	2012-13	2013-14
Yield	30.77	22.81	19.60	19.47

Figure 3: Yield of sample MFIs

As shown in Figure 4, the average operating costs fall with an increase in size of MFIs. MFIs with a gross loan portfolio above Rs 500 crore have an operating cost of 10.33% compared to 14.11% of MFIs with a gross loan portfolio of less than Rs 100 crore. As the number of active borrowers increase and MFIs gain bigger market share, they are able to cut down their costs. Mature MFIs over a period of time also tend to have clients who are in their second or third loan cycle thus reducing their costs on monitoring and loan utilization checks.   Further, MFIs with a gross loan portfolio between Rs 100 and Rs 500 crore seems to have higher operating costs as they are in the process of increasing their operations and thus incurring huge operating costs.

Table 4: Efficiency-Yield Analysis based on Size of MFIs

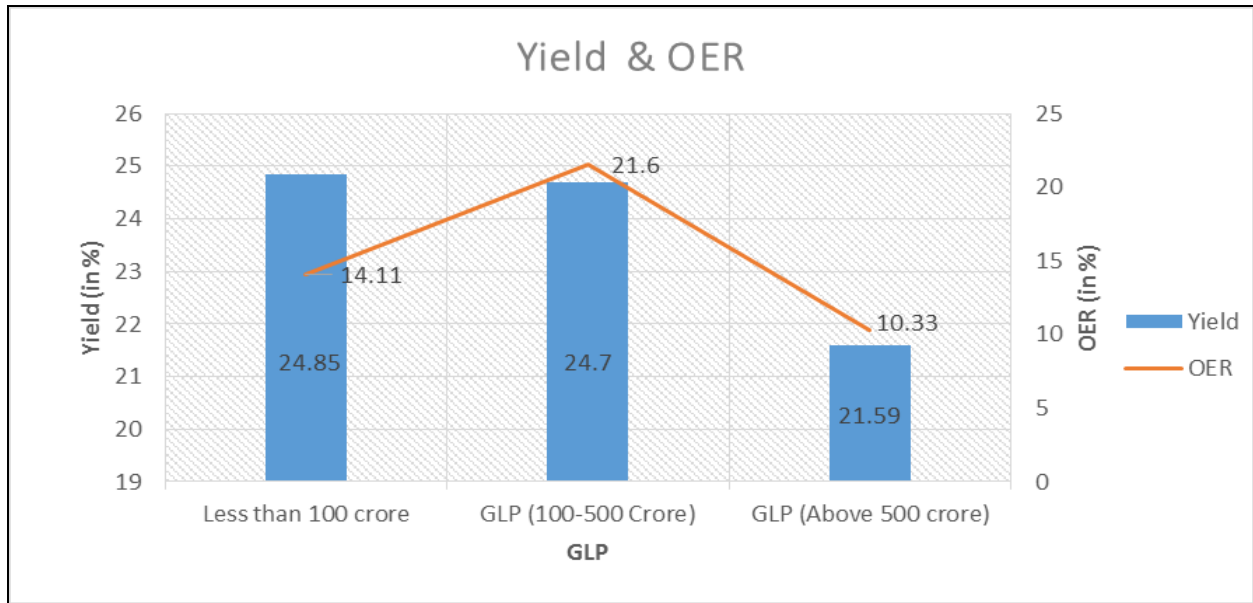| Efficiency and Revenue Indicators	Less than 100 crore	GLP (100-500 Crore)	GLP (Above 500 crore)
Yield	24.85	24.7	21.59
OER	14.11	21.6	10.33
Cost per Loan	993	1162	824

Figure 4: Yield & OER

Further, a drop in the average yield was also noticed indicating passing off the benefits of falling operating costs to the poor borrowers. MFIs must not charge exorbitant rates of interest. Higher rates of interest put pressure on the borrowers and thus lead to higher levels of loan delinquencies. On the other hand, interest rates must be sufficient enough to cover the costs incurred by MFIs. Such MFIs are able to sustain its operations in the long run.

Though interest rate charged by MFIs in both India and Bangladesh range from 20% to 30%, it can be noted that MFIs in Bangladesh charge less as compared to MFIs in Uttar Pradesh. MFIs in Bangladesh are mostly NGO forms of organization and therefore more oriented towards the social purpose of microfinance. Secondly, the microfinance industry in Bangladesh is quiet mature than its counterpart. Older MFIs learn over a period of time and devise ways to reduce costs. Thirdly, MFIs in Bangladesh are having a higher OSS than the MFIs operating in Uttar Pradesh.
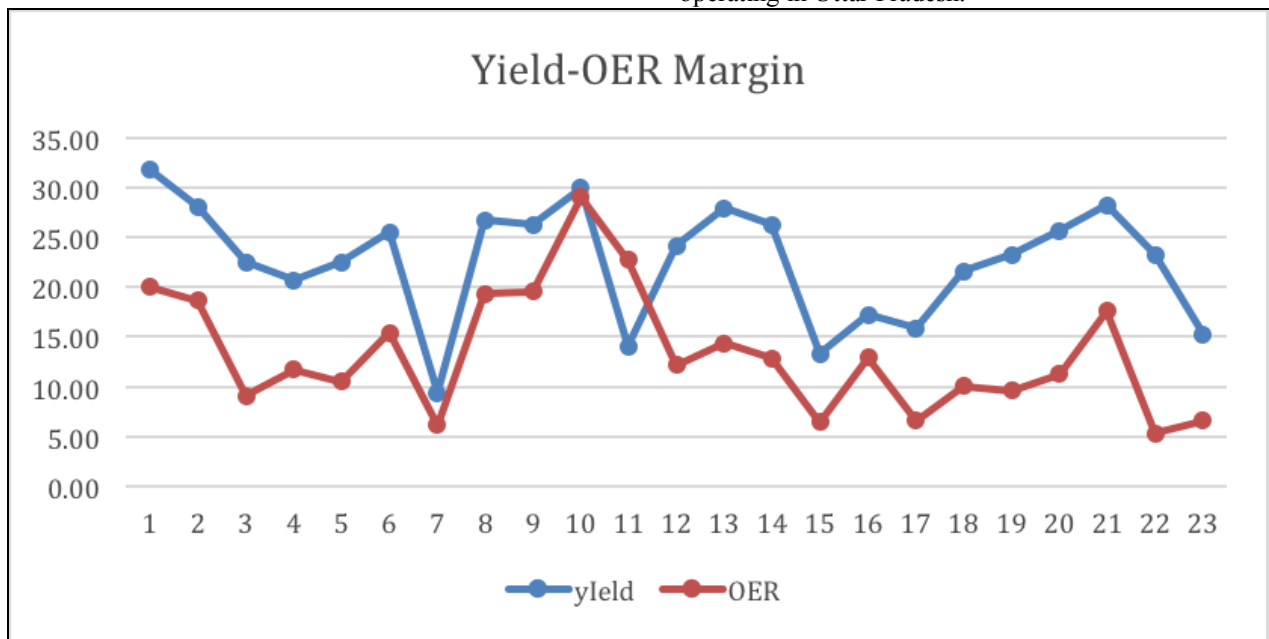

Figure 5:Yield-OER Margin

There has been a substantial widening in the Yield – OER margin available to a MFI for covering financial expenses, loan loss provisions and surplus.

A positive correlation exists between yield and OER. As shown in table, a positive correlation is seen between the two variables yield and OER.

CONCLUSION

Effective financial management requires periodic analysis of financial performance. With an increase in competition and the emergence of an ability to compare the financial performance of MFIs with each other and to benchmarks has led to improvement in business practices. (Tucker, 1999) MFIs are expected to cover their operating costs and even generate profits to finance their growth and attract private investors whose funds are crucial for the sector to survive in the long run. (Christen et al., 1994)

The present study unveils the cost efficiency of MFIs in Uttar Pradesh. MFIs in Uttar Pradesh have an average operating cost of 13.75%. The average cost incurred per loan is Rs 938. MFIs have been able to cut down their operating costs over a period of time thus leading to substantial widening of Yield-OER Margin. Though the yield has declined but still efforts should also be made to reduce the interest rates. MFIs in an urge to become financial sustainable must not exploit the poor and in turn shy away from the social goals of microfinance.

Commercialization seems to dominate much of the region, which is reflected in increasing levels of competition, high levels of profitability and predominance of regulated institutions. This has led to lowering of interest rates, costs and increased efficiency.

Based on the conclusions, MFIs need to introspect about their current lending and recovery practices. It is very much required that apt policies, legal regimes and proper infrastructure be put in place to reduce the cost of doing business for the MFIs. MFIs must enhance their efficiency by finding out better ways of delivering services.

In order to measure the performance of MFIs and provide results for policy formulation from financial inclusion angle, the performance of MFIs must be compared with other agencies like commercial banks, regional rural banks among others. Further work can be carried out on these lines.

It is hoped that the insights of the research work will be useful to policy makers, economic analysts, microfinance practitioners, investors, donor agencies, microfinance rating agencies, academicians, researchers and a host of other readers.

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