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Impact of MFIs Outreach on Profitability

The Case of Latin America

SUMMARY: This study attempts to determine whether MFIs can achieve financial sustainability while instantaneously reaching to the poorest to render financial services. To deal with methodological issues in previous studies due to the use of OLS, we used generalized method of moment (GMM) technique that is the most sophisticated technique while dealing with dynamic data. The selected sample consists of 405 MFIs across 21 Latin American countries for the period of ten years from 2005 to 2014. The results indicate compatible relation of depth of outreach (ALB) with profitability and breadth of outreach measured with number of active borrowers (NOAB) shows negative impact on profitability, though the results are insignificant. However, using GMM, we found compatible relation of ALB and NOAB with profitability. This study may be very helpful for policy development which may deliver treasured understandings to verbalize the future policy concerning to the revolutionary progression of MFIs.

KEYWORDS: outreach, profitability, Latin America, dynamic panel data analysis

JEL CODES: D0, E25, N16, N26

The primary mission of Microfinance Institutions (MFIs) is to generate social welfare, prosperity and sustainable development (Hasan et al. 2011) by hastening financial development (Lottapa and Tchikov, 2016) and reducing poverty (Mazumder, 2015)

Microfinance Institutions (MFIs) focus on plummeting poverty with establishing businesses of poor by rendering credit to those who are deprived of from commercial banks' credit due to shortage of collateral. In previous studies, this "focus" is termed as outreach. As rendering credit to poor (outreach) is generally an expensive work that may contradict

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financial sustainability of MFIs, donors and non-government organizations (NGOs) offered financial assistance to MFIs giving them loan at low rate that provided support in lending to local businesses.

It is hard for MFIs to be sustainable for a longer time period without subsidies and donations (Pollinger et al., 2007) and recent recession compact subsidies and donations to fund microfinance activities. Therefore, MFIs are attempting to become sustainable institutions concentrating on resilient performance. There appears to be a massive move of MFIs from being subsidized institutions to efficient, financial sustainability and profit – focused institutions.

This move towards financial sustainability ensued due to several changes incurred

in MFIs for example increase in competition and commercialization of microfinance business, financial liberalization, technological improvements and governmental regulations (Rhyne & Otero, 2006). Due to these developments, MFIs were persuaded to modify their attitude and vast their services due to these developments. Some researchers and practitioners believe that these institutions adjust their provision of services so tailored to the needs of the customers that these institutions can cover the cost of lending from these customers that make them financially sustainable (Rhyne, 1998). Sustainable MFIs are likely to have high impact on reducing poverty as they set high interest rate on better off clients, they obtain collateral that provide cushion against delinquent risk i.e. non-payment of the clients and collect regular installment visiting clients' premises that provide updated information of their projects effectiveness. Nevertheless, MFIs have inevitable challenge of attracting more private investments, increasing efficiency, obtaining diversified funds and eventually obtaining self-sufficiency while simultaneously serving to the poorest of the poor.

How MFIs operate with dual objective of obtaining outreach and financial sustainability? There is a great concern that both behave in opposite manner as the goal of obtaining financial sustainability may prevail over outreach to the poorest. Thus, it prompts the debate that the original objective of obtaining outreach of the poorest people may be slowed down if MFIs prioritize attaining financial sustainability. The debate generates two views on this issue, one of which dominates financial sustainability and other dominates outreach. However, there must be harmony on a certain point where institutions obtain financial sustainability without damaging outreach.

The literature on mission drift examined the relation between outreach and sustainability and argues that the phenomenon of

mission drift happens on the pursuit of profitability as MFIs provide greater amount of loan to the better off clients. On the other extreme, a large number of studies found no evidence for the existence of mission drift by observing no relation between outreach and profitability (Hishigsuren, 2007; Mersland and Strom, 2010). Another group of researchers show that institutions focusing their mission of achieving outreach also achieve better governance, strong capital structure and improved financial sustainability (Fernando, 2007). Thus, evidence on mission is not clear.

This study attempts to deal with the continuing issue on profitability-outreach relation that may be very helpful for policy development which may deliver treasured understandings to verbalize the future policy concerning to the revolutionary progression of MFIs.

The objective of this study is to fill the gap in sustainability – outreach literature referring to MFIs. More specifically, this study attempts to determine whether MFIs can achieve financial sustainability while instantaneously reaching to the poorest to render financial services. Outreach is measured in two dimensions: depth and breadth of outreach.

This study multilaterally contributes to the existing body of literature in microfinance. First, there are many descriptive studies that explain how breadth of outreach enables MFIs to obtain sustainability, yet empirical evidences for these theoretical studies are scarce. This study is an attempt to fill this gap by determining the effect of breadth of outreach on profitability. Additionally, most of the study in literature are theoretical and a few are of empirical nature that applied generally on ordinary least square (OLS) using data from different regions. OLS may produce bias results as different regions have different socioeconomic and cultural characteristics from each other. For example, the characteristics of Latin American are different from that of other re-

gions and cannot be pooled together for obtaining any policy making results. Therefore, we merely focus on dataset of Latin American countries that are similar economics, culture and social factors that may provide important addition in existing literature. Moreover, to deal with methodological issues in previous studies due to the use of OLS, we used generalized method of moment (GMM) technique that is the most sophisticated technique while dealing with dynamic data.

LITERATURE REVIEW

Theoretical Consideration

Microfinance literature has been separated into two schools of thought including welfarist approach and institutionalist approach. Institutional approach suggests that the future of microfinance is in the hand of private investors, whereas welfarist approach suggests that future of microfinance is deemed to be led by donors and governments (Rhyne, 1998), suggesting that both approaches are contradictory to each other (Bhatt and Tang, 2001). The debate between these two approaches is continuing and does not provide any accordance (Morduch, 2000). Welfarist approach is also known as poverty approach as it focus on financial inclusion of poor households and institutionalist approach is also known as financial approach as it focus on sustainability to be achieved to provide financial access to poor in long run (Robinson, 2001); (Morduch, 2000) and and Bhatt and Tang (2001).

Microfinance industry has been traditionally depending upon on donations and subsidies since inception. Since the shrinkage of donations and subsidies due to recent recession induced MFIs to be commercialized to obtain long term source of funds. Since then, an unending debate has been started among

policy makers and NGOs. One group of stakeholders perceive this as a positive step for long run existence of MFIs and other group dissatisfies for being it to be a positive measure and believes that MFIs would merely focus on financial sustainability at the cost of poorest client reaching to well-heeled poor, known as mission drift in MFIs.

The primary mission of MFIs is to expand the financial inclusion of poorest that is being replaced by mission of financial sustainability. Hence, mission drift is the transformation of original purpose of social service to financial performance (D'espallier, 2013). According to *Kent and Dacin (2013)*, MFIs are targeting customers as that of banks who are easy accessible, relate to urban areas, are entrepreneurs regardless of their primary objective of finding out of access clients who relate to rural areas and are financial destitute (referred as mission drift). *Mersland and Strom (2010)* argues that MFIs are focusing on obtaining financial self-sufficiency sacrificing outreach to the destitute poor. *Hishigsuren (2007)* argued that mission drift is not an organizational decision taken by the management with thoughtful, it's a decision has to be taken by the board to in race of increasing size of business. Most of the studies have employed loan size as a proxy for mission drift, *Schreiner (2001)* presents a scorecard inculcating ten indicators for measuring mission drift. These indicators were particularly related to poverty level, trend of poverty over the years and services designed for clients.

Dual mission of financial institutions has been documented in several studies such as *Mersland and Strom (2009)*. Financial institutions are involved in duality of objectives of obtaining financial sustainability and giving micro-services to low income households and micro-entrepreneurs. It is important to mention that second objective of serving to the poorest of the poor is usually sacrificed by MFIs for the sake of first objective of obtain-

ing financial sustainability. *Christen and Drake* (2002) also indicated this drift mentioning that better off poor crowd out the poorest.

For the purpose of identifying circumstances under which MFIs have been diverged from their actual goal, *Armendariz and Szafarz* (2009) demonstrated that mission drift is significantly different from what is technically termed as cross subsidization that makes the demonstration of whether MFIs are actually diverged from the original goal of rendering services to poor more problematic for the researchers. The dispute of substitutability of profit and outreach is challenged by *Christen and Drake* (2002) that stated that profit orientation of MFIs encourage them to seek new market opportunities and to become more effective. Many researchers have debated on sustainability of MFIs such as *Morduch* (2000) and *Woller et al.* (1999) that stated that microfinance institutions are required to have sufficient income to pay several costs.

Several issues of MFIs remain questionable as wither MFIs are fulfilling their primary objective or functioning effectively or the degree of profit that will be required to obtain capability in operations. MFIs tries to complete dual goals that are accessing poorest of the poor and achieving sustainability. *Freixas et al.* (2008) generated hypotheses, one on increase in average profit and other on increase in average cost assuming environmental uncertainty that claim the occurrence of mission drift and departure from real goal are forthcoming. *Schreiner* (2002) used average loan size as a measurement of depth of outreach, though major literature used increase in loan size as a measure of happening of mission drift. *Christen and Drake* (2002) stated that there is offset between cost and profitability and it does not cause mission drift or deviate institute from the original mission of outreach. *Mersland and Storm* (2010) asserts that mission drift does not exist and solidified the findings of earlier studies. *Armen-*

dariz and Szafarz (2011) suggested that firms that intent to maximize profit may stray from original goal by the interaction of firm level variables and country level variables.

Previous Studies

Copestake (2007) and *Ghosh et al.* (2008) are regarded as initial works that posits that better of customers are less exorbitant indicating that outreach has inverse impact on profitability. The literature does not provide conclusive evidence on outreach – profitability relation. *Cull et al.* (2007) and *Hermes et al.* (2011) studied either there is trade-off between outreach and profitability. These studies report that MFIs with individual lending have high profitability. The main reason for this may be that their portfolio includes lesser number of poorest and women clients as compared to MFIs that provide group lending. These studies also provide insights into how organizational structure effect trade-off.

Most recently, *Arrassen* (2017) determined either there is trade-off between social performance measured with depth of outreach and financial performance measured with self sustainability. These studies do not have consensus, however are sufficient to provide insinuation that there is relation between these variables. Using data for 120 MFIs for the period 2000 to 2009 and using random effect model, the study recommend the existence of mission drift primarily for bank-type and cooperative-type of MFIs. *Lopatta, Tchikov, Jaeschke and Lodhia* (2017) also noted that recent MFIs primarily focus on profitability rather than reaching to the poorest of the poor. To empirically examine the mission drift and how it impact performance, *Lopatta et al.* (2017) used large panel dataset and found that mission drift is a dilemma particularly of Non-profit MFIs.

Im and Sun (2015) noted that there are few empirical studies that discussed how MFIs attain their purpose of reaching to the poor i.e. outreach. The study used two approaches including social welfare approach and commercial approach to predict the relation between outreach and profitability. The study concluded u-shaped relation between outreach and profitability suggesting that MFIs following commercial approach are more focused for profit and those that follow social welfare approach focus on outreach even at the cost of profitability. *Martinez* (2015) also concludes that outreach is negatively related with ROA as well as self-sufficiency. *Quayas* (2015) reported complementary relation between financial performance and outreach. Financial performance was measured with profit margin, ROA and OSS whereas outreach was measured with average loan balance per borrower / GNI per capita. *Heng* (2015) determined the relation between depth of outreach and self sufficiency using cross-sectional data for 2011 over 33 MFIs in Indonesia and Cambodia and found complementary relation between these variables. *Nurmakhanova, Kretzschmar and Fedhila* (2015) investigated the relation between depth of outreach and OSS using data for 2011 over 450 MFIs in 71 countries and rejects the presence of mission drift and argues that MFIs can pursue both financial and social missions simultaneously. On the other side, *Abate* (2014) found trade-off between depth of outreach and performance using data for 107 MFIs from Ethiopia in 2011.

Among the most cited studies on trade-off between outreach and profitability include *Kipasha and Zhang* (2013) and *Hermes et al.* (2011). *Kipasha et al.* (2013) determined the existence of tradeoff between profitability and outreach using unbalanced data of 47 MFIs over 2008–11. The study found presence of tradeoff between outreach and profitability. The study also examined tradeoff

between outreach and sustainability, however, the tradeoff was not found between them. *Hermes et al.* (2011) examined the relation between sustainability and outreach. Sustainability was measured using cost efficiency and outreach with average loan size and found inverse relation between these variables. The finding of the study was robust as the results remain unchanged after adding certain exogenous variables. These results are similar with that of found by *Hoque* (2011) that found increase in trade-off between sustainability and outreach particularly after commercialization of MFIs. *Cull, Demirgüç-Kunt, and Morduch* (2011) also strengthen the argument for the presence of trade-off between outreach and efficiency. They examined the effect of regulation and supervision on outreach and performance of MFIs as the issue of these predictors has become significantly important since large MFIs started accepting deposits from people, particularly poor as show by *Hartarska & Nardolnyak* (2007). These regulations and supervision increase the lending cost and raises the concern whether or not they effect profitability and outreach.

Zerai and Rani (2012) found supplementing relation between outreach and sustainability using data of Indian 85 microfinance institutions. The study evidences the presence of correlation between them. However, the tradeoff between these variables was not supported. Additionally, *Quayas* (2012) also found positive relation between depth of outreach and sustainability evidencing the existence of supplementing relation between them. The study used data for more than seven hundred MFIs over 83 countries.

Cull et al. (2011) employed data for 245 biggest MFIs and found negative relation between supervision and outreach. More specifically, supervision has negative effect on percentage of women clients and positive effect on average loan size. The results suggest that

MFI should extend their services for earning greater profitability. However, their suggestions are not supporting to welfarist view. *Hudson and Trace* (2011) investigated relation between subsidies and efficiency of MFIs. Many MFIs depend on government subsidies and donations from NGOs that make this issue important for policy development. The study shows that not more than 5% of the MFIs that can be called sustainable. Others depend on subsidies and donation with varying degree. The providers of these funds require transparent information about the effect of subsidies on performance. The question arises whether they demand information at a cost of efficiency of MFIs. However, subsidization keep inefficient MFIs capable of working. The study concludes using data of 100 MFIs that subsidies have positive impact on efficiency of the institutions. However, the relation is not linear as at a particular level, the subsidies may go adverse for the efficiency of these MFIs.

Previously, *Olivares* (2005) also evidenced the same nature of relation though using less sophisticated statistical method. There are certain studies that failed to find any significant relation between outreach (% of female clients) and sustainability (*Ayayi and Sene*, 2010). However, the study did not use sophisticated analytical technique and applied pooled OLS. *Cull et al.* (2007), on the other hand, found that outreach and sustainability can simultaneously be expanded. The above discussed literature shows inconsistency in relation between outreach and profitability of MFIs that necessitate for the execution of further studies in such a complex issue.

Hypothesis

Woller (2002) states that where commercialization upsurges competition and savings mobilization, it also causes several issues for in-

stance mission drift. Mission drift may emerge due to inclination of MFIs towards less poor clients instead of serving poorest clients in pursuit of profit (*Navajas et al.*, 2000 and *Von Pischke*, 1996). Later, *Cull et al.* (2007) also found that sustainable MFIs design products particularly for better off clients. Additionally, *Hermes et al.* (2011) found negative relation between efficiency and outreach indicating that serving better off client increases efficiency using data for 435 Microfinance institutions. Similar findings were obtained by *Olivares – Polanco* (2005) where sustainability was found to have tradeoff with outreach.

Another group of researchers substantiate positive relation between outreach and sustainability known as institutionalist approach. *Robinson* (2001) states that the financially strong MFIs finance their microloan portfolio through leveraging additional capital without the support from donor funds or government subsidies and are able to provide sustainable large scale outreach to low income clients. *Zeller and Meyer* (2002) further note that sustainable MFIs follow demand oriented approaches, provide better products and increase its efficiency with cost reducing information systems, new lending technologies, these will in turn increase impact on poverty reduction. These theoretical arguments are supported by other existing evidence. For instance, *Quayes* (2012) finds a positive complementary relationship between financial self sufficiency ratios (operational self sufficiency) and depth of outreach. *Montgomery and Weiss* (2011) based on household data from rural Pakistan conclude that commercially oriented MFIs can meet a double bottom line goal of simultaneously pursuing profits and a social mission. Finally, recent study by *Kar* (2012) also invalidates the conception of trade-off between depth of outreach and increased profit orientation of MFIs.

Given the above discussion, the theoretical and empirical findings on the relationship be-

tween financial performance and outreach are mixed and the issue remains still unresolved. Therefore, we propose the following hypotheses:

Hypothesis: breadth of outreach has positive impact on profitability and depth of outreach has negative impact on profitability.

The pioneer studies on outreach – profitability found tradeoff relation including *Cull et al.* (2007) as serving to the poorest of the poor requires high lending and operational cost that reduces profitability. Therefore, a negative direction is expected in outreach (depth) – profitability relation. On the other extreme, outreach (breadth) – profitability relation is expected to be positive as targeting better off poor causes sustainability.

MODEL AND VARIABLES

Model and Variable Measurement

On the basis of the above discussion, we are able to form the following equation to be estimated in this chapter:

$$P = \alpha_1 + \alpha_2 OR_{it} + \alpha_3 control_{it} + \epsilon_{it}$$

Where P denotes financial performance, OR_{it} reflects vector of outreach and $control_{it}$ refers to the vector of other controlling variables included in the study. Moreover, ϵ_{it} is idiosyncratic term.

Profitability is defined as the capability of an MFI to recuperate cost of financial services or the ability to earn profit (Quayes, 2012). Profitability is measured with accounting ratio of return on assets (ROA) (Galema et al., 2011; Mersland and Strom, 2009). ROA delivers the ability of microfinance institution to earn competitive return that make it viable to have reach to financing from banks, and potency to enter into the regime of traditional financial sector. For making ROA comparable

between institutions as well as countries, ROA is used in real term i.e. effect of inflation has been excluded.

Outreach is used as a measurement for determining the effect of microfinance on development (Yaron et al., 1997). It may be defined as the extent to which financial products are provided to the lowest level poor (Conning, 1999). Outreach is not a uni-dimensional concept rather it encompasses several concepts (Schreiner 2002) more important out of which are breadth and depth. Depth is defined as how deeply MFIs serve poorest of the poor or number of clients MFIs serve below the poverty line. Average loan balance per borrower (ALB) is used as a measure of depth of outreach. Lower the value of ALB, higher will be the depth of outreach as it indicates MFIs gives loan to larger number of poor (Hermes & Lensink, 2011). Breadth of outreach is measured using number of active borrowers (Ashraf et al., 2014; Hermes et al., 2008; Von Pischke, 1996).

To separate the influence of outreach on financial performance, many other institution level and country level variables are controlled. Institution-level variables include status of being regulated or not, ownership type, number of offices, financial structure, number of diamonds, age and size of MFIs (Hermes et al., 2011). Ownership variable include dummies for several types of MFIs including banks, credit unions, NGOs, NBFIs and others. Country level variables included in the study are real GDP (GDP) and number of MFIs (COUNT) in each country.

Data collection and Sample

The data was collected for analysis from database of MIX Market that is the primary source of obtaining statistics on MFIs' social as well as financial performance. The macroeconomic

data was collected from World Bank development indicators. The selected sample consists of 405 MFIs across 21 Latin American countries for the period of ten years from 2005 to 2014. MFIs selected may have missing values in one or more years due to new entry or exit from market or due to unavailability of data. These MFIs were categorized into five legal forms including banks, credit unions, NBFIs, NGOs and others. From the selected sample, 41 were Banks, 62 were credit unions, 129 were NBFIs, 171 were NGOs and 2 are others.

Econometric Analysis

The study incorporated econometric analysis for reaching to the conclusion. For econometric analysis, we used panel data technique. Panel data produces efficient econometric estimations through giving a broad set of observations. It is also effective to decrease correlation among independent variables (multicollinearity) and enhances degree of freedom (Hsiao, 2003). Commonly, panel data estimation includes fixed effect model and random effect model.

The main drawback of FE model is that it is not effective for model including time invariant variables. As the equations of the study include time invariant variables, we used RE model to present the coefficients. To control heteroscedasticity and autocorrelation, the study estimated equations with robust standard error clustered at institution level (Wooldridge, 2002).

Moreover, we also run OLS model as a threshold model with robust standard error so as to control heteroscedasticity and autocorrelation possible in the model. Meanwhile, post estimation analyses of Breusch-Pagan Lagrange multiplier (LM) was conducted to know the appropriate model between RE model and OLS model, the significance which demonstrates preference of RE model over OLS model.

The regression analysis of outreach and profitability may be subject to endogeneity issue. Quayas (2012) stated that outreach is determined by profitability and, on the other hand, profitability is also affected by the extent to which MFI is concerned about outreach. To address the problem of endogeneity, we extended our estimations from OLS and RE to generalized methods of moment (GMM) methodology. Two step system GMM developed by *Arellano et al.* (1995) combined with process of finite sample corrected standard error proposed by *Roodman* (2006) is estimated. The process is suggested by *Windmeijer* (2005).

RESULTS

Empirical Estimations

We present the result of outreach with profitability, while controlling other variables. LM test is run that indicates RE is preferable to be used. However, the result of OLS is presented with RE as a base model. Finally, dynamic panel data analysis is presented that is the most powerful technique while dealing with dynamic data.

Table 1 shows the impact of outreach on profitability while controlling the other variables. The results show that average loan balance per borrower (ALB) has positive impact on profitability measured with ROA. It indicates compatible relation of outreach with profitability as previously indicated by Quayas, (2012) that stated that higher settlement rate by female clients lessens administrative expenses that help to produce greater profitability. On the other hand, breadth of outreach measured with number of active borrowers (NOAB) shows negative impact on profitability. The results are consistent with that of Morduch (2000) that observed incompatibility or trade-off between outreach and

Table 1

OUTREACH AND PROFITABILITY				
ROA	OLS		RE	
	Coef.	T	Coef.	Z
ALB	0.1031207	8.92*	0.0793528	4.30*
NOAB	-0.0016310	-0.46	0.0002592	0.05
Co	-0.0403618	-0.41	-0.0330753	-0.87
Bank	-0.0440429	-0.45	-0.0400033	-1.11
Nbfi	-0.0437026	-0.44	-0.0408878	-1.05
Ngo	-0.0567359	-0.57	-0.0574210	-1.29
OFF	-0.0000523	-0.66	-0.0001615	-1.92*
SIZE	-0.0853741	-7.37*	-0.0595363	-3.25**
Age	0.0323685	5.20*	0.0245730	2.81**
RG	-0.0342749	-4.05*	-0.0357314	-2.46**
DM	-0.0035620	-0.88	-0.0078007	-0.50
ETA	0.0992553	7.01*	0.1024072	4.02*
GDP	-0.0062285	-2.93*	-0.0099208	-2.51**
COUNT	0.0251863	5.55*	0.0285355	3.67*
c	-0.2057605	-1.74***	-0.1467162	-1.44
Observations	2637		2637	
F stat	18.46*			
Wald chi2			4105.18*	
Adj. R2	0.084		0.084	
LM test – chi2		149.03*		

Notes: * means significant at less than 1 percent; ** means significant at less than 5 percent; *** means significant at less than 10 percent

Source: own editing

profitability, though the results are insignificant. Any type of ownership has no impact on profitability using both models. The result of impact of number of offices (OFF) is found to be insignificant using OLS however is found to have negative impact using RE model. It may be due to increase in operating fixed cost by opening new branches that reduce profitability. The size of MFIs (SIZE) is found to have significantly negative impact on profitability. Theory suggests that larger firms are controlled by managers who follow their own

goals reducing profitability by alternating profit maximization function with managerial utility maximization function (Pervan and Visic, 2012). MFI age (age) is found to have significantly positive impact on ROA indicating that MFI with experienced management are better able to earn greater profitability. The result is opposed to the findings of Ahmed, Bhuiyan, Ibrahim and Said (2016) that states that age is not a guarantee for high profitability. The regulation status (RG) has significant and negative impact on profitability. It sup-

ports Cull et al. (2009) that indicated that regulated MFIs have to pay additional regulation cost that has deteriorating impact on their profitability. Number of diamonds (DM) is observed to have negative and significant impact on profitability as previously found by Ashraf et al. (2014). The effect of equity to assets ratio (ETA) is found to be positive suggesting that MFIs with higher capitalization are more confident and capable with regard to management that increases their profitability. GDP (GDP) is observed to have negative impact on profitability. Additionally, number of MFIS (COUNT) is positively associated with profitability indicating that increase in competition enforces management to work more effectively to increase profitability.

When selected variables are supposed to have the problem of endogeneity, the estimations should not be confined to OLS or RE. Therefore, we extended our estimations to GMM technique to address this issue. ALB and NOAB are found to have positive and compatible impact on profitability as previously found in using OLS and RE. AGE and GDP are observed to be significantly negative and ETA is found to be significantly positive. Moreover, types of ownership, OFF, SIZE, RG, DM and COUNT are found to be insignificant. The diagnostic tests of the model show that the model is a good fit as AR(1) is found to be significant and AR(2) is found to be insignificant. The validity of the instruments is verified by the insignificant Hansen J-statistics (*table 2*).

CONCLUSION

How MFIs operate with dual objective of obtaining outreach and financial sustainability? There is a great concern that both behave in opposite manner as the goal of obtaining financial sustainability may prevail over out-

reach to the poorest. Thus, it prompts the debate that the original objective of obtaining outreach of the poorest people may be slowed down if MFIs prioritize attaining financial sustainability. The debate generates two views on this issue, one of which dominates financial sustainability and other dominates outreach. However, there must be harmony on a certain point where institutions obtain financial sustainability without damaging outreach.

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Table 2

DYNAMIC PANEL DATA ANALYSIS				
ROA	Coef.	Corrected Std. Err.	T	P>t
ROA.L1.	0.3066414	0.0622481	4.93	0.000
ALB	0.0322787	0.0191531	1.69	0.093
NOAB	0.0258167	0.0102384	2.52	0.012
OFF	0.0073270	0.0092013	0.80	0.426
SIZE	-0.0240607	0.0169416	-1.42	0.156
AGE	-0.0159900	0.0094365	-1.69	0.091
RG	-0.0494358	0.0328896	-1.50	0.134
DM	0.0029382	0.0037111	0.79	0.429
ETA	0.1424901	0.0393933	3.62	0.000
GDP	-0.0126958	0.0049416	-2.57	0.011
COUNT	0.0108364	0.0096122	1.13	0.260
BANK	-0.0647377	0.2826339	-0.23	0.819
NGO	-0.0506474	0.2829748	-0.18	0.858
NBFI	-0.0606978	0.2831594	-0.21	0.830
CO	0.0350493	0.2842536	0.12	0.902
c	-0.0397749	0.3133477	-0.13	0.899
F – stat	9.46*	Hansen J–stat	266.53(0.67)	
AR(1)	-4.00(0.000)			
AR(2)	-0.95(0.267)			

Notes: * means significant at less than 1 percent.

Source: own editing

ability of data. These MFIs were categorized into five legal forms including banks, credit unions, NBFIs, NGOs and others. From the selected sample, 41 were Banks, 62 were credit unions, 129 were NBFIs, 171 were NGOs and 2 are others.

The results indicate compatible relation of outreach with profitability as previously indicated by Quayas, (2012) and breadth of outreach measured with number of active borrowers (NOAB) shows negative impact on profitability. The results are consistent with that of Morduch (2000) that observed

incompatibility or trade-off between outreach and profitability, though the results are insignificant. However, using GMM, we found compatible relation of ALB and NOAB with profitability.

LIMITATION

The crucial limitation of the article is that the data used for analysis is limited up to 2014 due to unavailability of data for the forthcoming years.

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