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Microfinance Commercialization and Food Security in Ethiopia

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Abstract

The microfinance paradigms focus on reduction of poverty through improving access to finance and financial services. However, commercialization of microfinance leads to competition and this may result in less attention to social goals and participation as they give due consideration to financial sustainability. In a competitive environment, MFIs may not be able to afford maintaining the extra non-financial services that support social goals like food security or empowerment. The purpose of this study, therefore, aims at addressing the research question: Are microfinance institutions in Ethiopia really serving the poor? The study followed quantitative research approach using a balanced panel data set from 16 MFIs over the period 2002-2010. The findings indicate that age of institution and microfinance breadth of outreach had positive and statistically significant contribution on average loan size (measure of serving the poorest) whereas sustainability and competition had negative and statistically significant impact on average loan size. Thus, this indicates that it seems there is less worry for mission drift rather there is mission enhancement.

Keywords: Microfinance Commercialization, Serving the Poor, Food Security, Ethiopia

1. Introduction

Food security is one of the main problems tackling developing countries at present and is at the centre of development policy. It is no surprise that the World Bank (2008) has chosen the theme of attacking poverty in its development report in which it is estimated that of the world 6.7 billion people, 2.8 billion live on less than US\$2 a day and 1.2 billion on less than US\$1 a day in the 21st century. Of the 1.2 billion people who live on less than a dollar a day, 43.5 percent are in South Asia, 24.3 percent are in Sub-Saharan Africa and 23.2 percent are in East Asia and the Pacific. In the least developed countries, 35 percent of the population consumes fewer than the minimum calories required to lead a healthy active life.

The World Bank (2008) also scrutinizes that poverty in developing countries is shifting toward South Asia and Sub-Saharan Africa. UNECA (1999) using a sample of African countries found that 50.54 percent of the population in Sub-Saharan Africa while 22.33 percent in North Africa is below the poverty line, and poverty is higher in the rural areas compared with the urban areas. It is widely accepted that one major cause of poverty in developing countries is lack of access to productive capital as formal financial institutions mostly excluding the poor in their lending activities.

Bigsten and Levin (2000) also argues that attacking persistent poverty in low and middle-income countries is the greatest single challenge facing the global development community as the world moves forward in to 21st century. However, poverty is not a primary concern in highly industrialized countries though it is a strategic issue in developing countries. The problems caused by informational asymmetries that are emblematic to credit markets are worsened in poor countries, because poor people lack collateral to secure their loans and the weak legal systems cannot secure enforcement if a client breaks a promise on their loan (Tuuli, 2010). The poor are therefore typically unable to borrow from formal financial service providers. This lack of access can create persistent poverty traps, income inequality and food insecurity.

One strategy in many developing countries has been to promote access to credit facilities by establishing government owned agricultural banks and promoting non-governmental organizations that offer credit to the poor. Encouraged by the achievements of the Grameen Bank in Bangladesh in reaching the poor, microfinance institutions (MFIs) using group-based lending are increasingly becoming important institutions in breaking the vicious circle of poverty in many developing countries today. Therefore, they have been acknowledged with enthusiasm as its innovative loan contracts to bring financial services and extension of small loans to the poor (Morduch & Armendáriz, 2005).

Poverty and food insecurity are also the main challenges and fundamental issues of economic development in Ethiopia. The major causes of low economic growth and high incidence of poverty in Ethiopia include lack of income, assets, employment opportunities, skills, education, health and infrastructure. Thus, the Food Security Strategy (FSS, 2002), Sustainable Development and Poverty Reduction Program (SDPRP, 2003) and other government development policies and strategies emphasized the magnitude of food insecurity and the required strategies to curb the problem. To alleviate the prevailing food insecurity, it requires strong poor oriented financial intermediation and diversification of livelihood strategies in making the poor to build private

capital.

Microfinance service is one of the entry points to increase household asset and income diversifications. It is believed that community based credit organizations and decentralized savings and credit systems can achieve good results in diversifying household incomes and improve the subsequent food security. Most scholars and development practitioners also consider that microfinance has evolved as an economic development approach intended to benefit low-income women and men. Thus, microfinance by definition is the provision of financial services to low-income clients including self-employed (Ledgerwood, 2006).

However, earlier microcredit delivery and savings mobilization in Ethiopia were performed by NGOs, government departments, cooperatives and others in a fragmented and inconsistent way, the government took the initiative to establish the regulatory framework in order to facilitate sound development of the microfinance industry. Proclamation No. 40/1996 which aims to provide for the licensing and supervision of the business of micro-financing clearly indicates the requirements for licensing MFIs by empowering the National Bank of Ethiopia to license and supervise them.

The regulatory framework has affected the welfare-oriented NGOs in Ethiopia, which focus on welfare programs by providing free or subsidized micro-credit services. They tend to provide credit services at very low interest rate (below market interest rate) focusing on the poorest of the poor (based on humanitarian reasons) rather than on sound credit management principles. As a result, many of the NGOs, providing micro-credit services in Ethiopia, are in a transition from highly subsidized credit programs to a finance based system and most of the microfinance institutions are in transition from NGO-supported micro-credit activities to commercialization services to have institutionalized and unified microfinance services in the country.

The term commercialization refers to the adoption by MFIs of market-based principles in their microfinance activities regardless of whether they are under prudential or non-prudential government regulations (Christen & Drake, 2002). However, the critics of commercialization of microfinance usually mention that competition in microfinance may result in less attention to social goals and participation as they give due consideration to financial sustainability.

In a competitive environment, MFIs may not be able to afford maintaining the extra non-financial services that support social goals like food security or empowerment (Marr, 2002). Similarly, many scholars argue that microfinance institutions, which focus on the alleviation of poverty targeting the rural poor (increased outreach), do have high cost of operation which reduces their profit margin. This issue has also emerged as one of the challenges of the microfinance industry in Ethiopia. It must be clear that the financial sustainability of MFIs complements the social objectives of MFIs and leads to mission drift. On the other hand, Ganka (2010) states that commercialization helps MFIs to be sustainable and offer greater opportunity to fulfill their social objectives of providing the poor with increased access to different types of demand-driven microfinance products and services, including not only credit but also savings, insurance, utility and other payments and money transfers. Likewise, Hishigsuren (2007) confirms that commercialization and adopting license to operate as a regulated financial institution allow MFIs to sustain their mission in increasing their capital base through mobilization of public deposits and access to private sources of capital. This in turn could help MFIs to serve a wider client base, also known as breadth of outreach.

Therefore, this study is to address questions: Are microfinance institutions in Ethiopia really serving the poor? And does the pursuit of profitability through commercialization tend to drive microfinance institutions away from the poorest borrowers and lead to food insecurity? The next sub-section looks at reviews of literature on the subject. Section three presents the research methodology. Discussion of the results is included in section four. Finally, section five gives the conclusions.

2. Review of literature

This section discusses the literature concerning the commercialization of microfinance institutions in Ethiopia. The review of literature establishes framework for the study and highlights the previous studies, which in turn, helps in clearly identifying the gap in the literature.

2.1. The concept of microfinance commercialization

The term commercialization refers to the adoption by MFIs of market-based principles in their microfinance activities. It is the adoption of commercial approaches like introduction of cost-saving technologies; gathering, disseminating and using market intelligence; the introduction and market testing of new products and services, typically – but not necessarily – in response to market forces (Woller & Schreiner, 2002). Commercialization could lead to efficiency and, therefore, financial sustainability because adopting the market approach implies principles such as professionalism and sustainability, in the provision of financial services.

The commercialization of microfinance is attracting increasing attention as potential means for narrowing the persistent demand-supply gap for demand-driven, sustainable microfinance products and services. There is a growing realization that commercialization offers greater opportunity for MFIs to fulfill their social

objectives of providing the poor with increased access to different types of demand-driven microfinance products and services, including not only credit but also savings, insurance, utility and other payments, and money transfers (Richardson and Lennon, 2001; Woller and Schreiner, 2002). According to Hishigsuren (2007) commercialization and adopting license to operate as a regulated financial institution allow MFIs to increase their capital base through mobilization of public deposits and access to private sources of capital. This in turn could help MFIs to serve a wider client base, also known as breadth of outreach.

2.2. Microfinance commercialization and mission drift theory

While the commercialization move is getting more supporters, the same move appears to be a threat to MFIs' poverty reduction objective. The assumption is that commercialization could lead into engagement of larger, wealthier clients and, therefore, diverting money intended for the poor to those who are a bit better off (Woller & Schreiner, 2002). As Pischke (2007) put it, commercialization may lead to one of the following three possibilities. The mission stability, mission enhancement, and mission drift.

Mission stability refers to a condition where an MFI will continue with provision of limited range of services to the poor. The mission enhancement on the other hand looks at engaging larger, wealthier clients as one way to enhance MFIs mission. This can be done through cross-subsidization where wealthier clients are charged higher interest rates than the poorest clients can (Morduch & Armendáriz, 2005). Through this, new services are offered, new target group engaged, while the original group continues to be served often better (Pischke, 2007). According to Pischke (2007), mission enhancement is consistent with the objective of servicing those who have not had prior access to formal finance or to certain financial instruments. Mission enhancement makes financial sector more efficient, as indicated by finer spreads, lower risk premium, new products, lower transportation costs, more participants, and service to an expanded array of clients. It is meant to make financial sector more efficient by continuing to engage those beyond the frontier of formal finance and by catering to the others not well served by main stream finance.

The last possibility is mission drift. This happens when an MFI, which served better the poor, moves up-market, abandoning the poor. Over emphasizing financial self-sufficiency will lead MFIs to engage wealthier clients to earn higher profits as a means of moving towards attaining financial self-sufficiency (Morduch & Armendáriz, 2005; Woller & Schreiner 2002). In mission creep there is a strong tendency to move to the top of the clientele group, and to give little attention to the needs of the poorest, with the result that their proportion diminishes over time (Navajas et al., 2000). Only MFIs that design programs around the needs of the poorest are likely to retain them as clients. However, financial performance of MFIs targeted to the poorest clients can be comparable to those of MFIs that do not reach the poorest (Gibbons & Meehan, 2000).

2.3. Financial services and food security

Analysts are becoming increasingly aware that microfinance can play multiple roles in reducing poverty and improving food security for poor people. Richard (2002) explained that financial services are recognized now as playing multiple roles in development so that improved access can have a far greater and more comprehensive impact on poor households than previously assumed. In addition to the virtuous production and investment cycle, financial services can smooth consumption and improve food security. Moreover, supplying financial services to women may be an especially important way to empower them to play more active economic and social role in society. As the microfinance industry matures, many microfinance institutions are redesigning their financial products and services so they make a stronger contribution to these broader poverty impacts.

Critics of the direct credit approach frequently argue that an overemphasis on lending distracted attention from the fact that poor households need -- and increasingly demand – a variety of financial services including savings and insurance. A recent statement of these arguments, emphasizing how financial services affect household food security, is found in a monograph from the International Food Policy Research Institute (Zeller, 1996).

Richard (2002) indicates three pathways or channels through which financial services affect food security. The first is through the familiar poverty-reducing path of improved income generation. The effects are expected to be twofold. First, there is the traditional argument that loans can temporarily enhance a household's productive human and physical capital. Second, savings and credit services can increase a household's risk-bearing potential, leading to the adoption of more risky but potentially more profitable income-generating activities. The profitability and mix of productive activities may change, leading to increased income that contributes to the virtuous production and investment cycle. In the second pathway, finance contributes to poverty reduction by decreasing the rural household's cost of self-insurance. Improved access to credit, savings, and insurance services can induce changes in household assets and liabilities. For example, the holding of "precautionary savings" in the form of non-remunerative physical assets, such as cash, jewelry, staple foods and livestock, may decline. The emergency sale of productive assets at low prices may decrease, and the storage of crops for later sale at higher prices may rise. The importance of more expensive informal financial services may

decline. Reductions in the cost of stabilizing consumption will release resources to finance more consumption and investment.

The third pathway, consumption credit, represents the greatest divergence from the narrow production and investment-oriented view of finance. Households attempt to smooth consumption over time by adjusting their disposable income. In the event of adverse shocks, such as bad weather, accidents and illness, rural households use traditional consumption smoothing measures such as the emergency sale of assets, depletion of stocks and inventories, and grants and loans from family, relatives and the informal sector. Formal credit, savings and insurance services may help households to smooth consumption so they use fewer traditional methods, which are often inefficient and bind households into unproductive social relationships that discourage savings and wealth accumulation.

Contrary to the above, Coleman (1999) suggests that the credit did not have any significant impact on physical asset accumulation; production and expenditure on education. The women ended up in a vicious cycle of debt as they used the money from the village bank for consumption and were forced to borrow from money lenders at high interest rates to repay the village bank loans so as to qualify for more loans. However, there was significant positive impact for women who had access to bigger cheap loans from the village bank. The main conclusion from this study was that credit is not an effective tool for helping the poor to enhance their economic condition and that the poor are poor because of other factors (such as lack of access to markets, price shocks, inequitable land distribution) but not lack of access to credit. This was a similar view expressed by Adams and Pischke (1992).

Similarly, many writers suggest that the main benefit the very poor can realize from microfinance is, actually, consumption smoothing (Morduch, 1998; Zeller & Johannsen, 2006). Those just above or just below the poverty line may be able to use loans more effectively for productive purposes, meaning that increasing their income is more feasible than that of the poorest. Thus, Zeller and Johannsen (2006) and Morduch (1998) empirical evidence supports notion of "expanding financial services may improve the welfare of the very poor, but not necessarily lift them out of poverty because of their lack of access to markets, technology, knowledge, and other factors that expand the production frontier."

Generally, the provision of microfinance to the poor can be recognized as a means through which food insecurity could be alleviated more effectively. The hope is that much of the household food insecurity can be alleviated and that economic and social structures can be transformed fundamentally through the provision of financial services to poor households. Microfinance and food security interact through a direct linear relationship where the more funds are made accessible to the food insecure, the food security is better maintained. The provision of micro financial services to low-income households to enable them generate their income is believed to reduce their food insecurity and vulnerability more effectively.

2.4. Microfinance commercialization: A "Win –Win" proposition

The microfinance industry consists of nongovernmental organizations (NGOs), village banks, credit unions, specialized banks for the poor, and commercial banks. It is difficult to generalize about such a heterogeneous group, but an important segment of the industry is expected to operate on the so-called "win-win" proposition. When the poor can obtain financial services otherwise unavailable to them and benefit from these services, they are willing and able to pay high interest rates and fees that permit the MFIs to be sustainable (Morduch, 2000). Therefore, the MFIs that apply good banking principles are also expected to be those that alleviate the most poverty.

MFIs are thus evaluated using three objectives. The first is outreach, to reach a large number of poor clients. The second is long-term sustainability, so the MFI can continue to provide financial services after any initial government or donor start-up funds have been exhausted. The third is impact on the clients served, improving incomes sustainably and alleviating poverty. However, Conning (1999) stated that there are complementarities among these objectives. For example, MFIs that serve a large number of clients may achieve economies of scale that contribute to their sustainability. But there may also be trade-offs. If MFIs try to serve very poor clients, i.e., improve their depth of outreach and impact on the poor, average loans and savings deposits will be small and costs will be high, so sustainability may be difficult to achieve. This has prompted some analysts (e.g. Hulme & Mosley, 1996) to fear mission drift because MFIs that strive for sustainability may avoid serving poorer clients. It should be noted that emphasizing financial sustainability above all else can have the practical effect of excluding the poorest because of the widespread misperception that the poorest are a greater credit risk and the reality that the unit costs of small loans tend to exceed the unit costs of larger loans. Others are also in favor of the "win-win" proposition. For instance, Morduch (2000) argues that by offering more services desired by the poor and earning profit that sustain them, MFIs will also contribute more to poverty alleviation and food security.

2.5. Savings vs. credit in food security

There is consensus that facilitating savings is important, because there is a high demand for it among the poorest and because savings play a role in protecting against the seasonality of cash flows and fulfilling an insurance function. In addition, building up deposits reinforces financial discipline for customers and can eventually yield collateral and serve as a source of funding for MFIs (Morduch, 2002). Morduch further suggests that though savings alone have only a minor developmental impact, the protection against shocks might allow children to remain in school or income-earners to get medical treatment and minimize time away from work and thus it reduces food insecurity, but it is slow to create any significant wealth in itself unless credit is also available.

Petra (2008) argues that financial sustainability is not the only significant result of microfinance; the mobilization of savings is a vital part of the commercialization movement. NGOs are incapable of taking deposits from the borrowers and thus could not add them as asset to their organization. Funding, utilizing local resources amounts to a great percentage of the total funding of transformed microfinance institutions. In addition to that, regulated commercial MFIs mobilize savings from the public and not the poor alone. Successful institutions also collect savings from middle-income and even some high-income clients from their region. This way the high transaction costs incurred from depositing small amounts of money is reduced.

However, microfinance institutions that focus on savings more than credit tend to reach a smaller proportion of the poorest, have a lower and slower impact on poverty reduction, and are therefore less conducive to reaching the Millennium Goals by the target dates. While the savings-first institutions are easier to finance by donor agencies (far less start-up capital required), the few comparative studies available show that borrowers fare better than non-borrowers (Chen & Snodgrass, 1999; Fruman, 1998). Thus, they recommended that to reach the poorest of the poor and to minimize their food insecurity credit should be proportionate to saving. However, it is argued in the development literature that the poor can save but all they lack is access to flexible savings products. Savings are key products of microfinance activity and both MFIs and clients value savings as important complements to the financial management, institution /client relationships and to the livelihoods of the low-income population (Okurut *et al.*, 2004). Zaman (2000) also stated that borrowing patterns and the inclination to save have been found to be similar across clients at different levels of poverty. Generally, Morduch (2002) mentioned that there is ample evidence to support the positive impact of microfinance on poverty reduction. In particular, there is overwhelming evidence substantiating a beneficial effect on income smoothing and increases to income, and thus food security. However, there is less evidence to support a positive impact on health, nutritional status and increases to primary schooling attendance.

2.6. Commercialization and targeting the poor

Commercialization is being market oriented and giving attention to sustainability. Okurut *et al.* (2004) in their study on Ugandan MFIs found that in the microfinance business one of the key factors that influences profitability is the portfolio quality, basically because the higher the loan default the higher will be the write-off of bad loans which lowers the profits. So, one of the ways of minimizing the loan default is through careful analysis of the repayment capacity of the potential clients. From their experience of repayment capacity analysis, the MFIs have come up with a categorization of the poor into economically active poor and the core poor. The economically active poor have the repayment capacity and so are not eligible to get MFIs credit. To them the poorest of the poor need grants that should be taken care of by the state. From their interview, one MFIs Executive said, "if you are doing business and you lend to people whom you can see cannot be able to pay back, are you a good or a bad business man? Who will take care of your operational losses now that grant funding is increasingly becoming a story of the past?." This shows that commercialization of microfinance leads to mission creep and serving the richest of the poor rather than the poorest of the poor.

Though the poor is mentioned in most of MFIs mission statements as the target group, they do not have any operational parameters to identify the poor. Since the driving factor is the repayment capacity and profitability, it may not be surprising that some of the clients of the MFIs are the non-poor (Okurut *et al.*, 2004). The challenge, therefore, is that if the microfinance services are not accessible to the core poor, how will their welfare be improved? This implies that commercializing microfinance may not be struggling to reduce food insecurity especially in developing countries, which have more number of people below the poverty line.

3. Methodology of the study

The study examines microfinance commercialization and targeting the poor in Ethiopia. The data used for this study is purely secondary taken from the MIX Market Inc. website over the period of 2002-2010. Though most MFIs in Ethiopia are commercialized following Proclamation No. 40/1996, they do not have organized information before 2002. There are 16 Ethiopian MFIs in the MIX market website to which the researcher has access to their data although their actual number as per the National Bank of Ethiopia database are nearly 30. From this total, 14 did not have the information for the required period to calculate the proxies of dependent and

independent variables. Therefore, the sample size for this study reduced to 16 MFIs with 144 observations.

In this study, food security of the poor is the dependent variable. However, it is difficult to measure food security unless a door-to-door survey is made. This study thus used the depth of outreach (average loan size) as a proxy of measuring reaching the poor. The smaller the average loan size per borrower, the more affordable the loan and indicating MFIs are working for the poor and then food security. The study replicated Francisco (2007) statistical model, testing various commercialization factors for predicting the average loan size. The independent variables are age of institution, sustainability, breath of outreach, women, and competition. Age of institution is measured by number of years of the MFI since its commencement. Sustainability is measured by return on assets (ROA). Breath of outreached is measured by number of active borrowers per institution. The variable "women" is represented by percentage of women borrowers. Last, but not least, competition is measured by concentration ratio of the country of the MFI. Log transformation had been made on concentration ratio as it was not stationary at level. However, institution type was excluded in this study since all MFIs included in this study are regulated. Therefore, the panel model for predicting the average loan size using commercialization factors is presented as:

$DOUTCH_{it} = \beta_0 + \beta_1 (AGE) + \beta_2 (ROA_{it}) + \beta_3 (BOUTCH_{it}) + \beta_4 (WOMEN_{it}) + \beta_5 (COMP_{it}) + \boldsymbol{\xi}$

Where: DOUTCH, the depth of outreach; AGE, age of institution; ROA, sustainability; BOUTCH, breadth of outreach; WOMEN, number of women borrowers; COMP, competition, and ϵ the stochastic term.

Besides, the study tried to co-integrate and shows the co-movement between credit and saving balance using deposits and loans amount for each MFI. This has taken into account the importance of the mobilization of savings, as one of the main traits of commercialization and its impact on people and institutions as a part of the fully-fledged financial institutions. Co-integration shows co-movement, convergence or linear combination of two or more variables. These linear combinations are called co-integrating relations, and since they can be interpreted as long run equilibriums; they are of vital interest in economics. The major statistical approach to co-integration developed by Johansen that shows the possibility to estimate the number of long run relations. Thus, this paper applies the methods of Fisher/Johansen's to investigate the co-integration between credit and saving since their method propose an alternative approach to testing for co-integration in panel data by combining tests from individual cross-sections to obtain at test statistic for the full panel.

4. Empirical results

The regression results for the model containing depth of outreach (average loan size) as the dependent variable and five independent variables indicate that the model significantly predicts loan size with $R^2 = 0.76$. This model accounted for only 72% (when adjusting for degrees of freedom) of the variance in average loan size. All the variables included in the model were proved significant except the variable women, suggesting that this independent variable is not useful in predicting the average loan size.

Age of the institution had positive and significant relationship with loan size. This implies that more established MFIs in Ethiopia started with an explicit objective to generate profit so that their initial mission was not reaching the poorest of the poor and serving the same group of population. Similarly Christen (2001) mentions as a choice of strategy the choice of operating as a regulated or non-regulated institution (instead of the NGO versus financial institution dichotomy), and in this case "large differences ... may simply reflect the fact that the two groups started out to serve quite different populations. However, Christen *et al.* (1995) consider that "in judging whether a given institution has achieved extensive outreach, comparisons must be made with achievements of other institutions, keeping in mind the program's age." In this case, the prediction would be the older the institution, the larger the loan size. However, according to Cull *et al.* (2007), this might not necessarily lead to mission drift as clients who have shown prudent repayment performance through time are able to reach larger loans because of progressive lending practices. In successful microfinance programs, the clients might have been able to develop and expand their businesses with earlier loans, which lead to increased income and a need for larger loans.

Sustainability had negative and statistically significant relationship with average loan size. The negative sign indicates when profitability increases, average loan size decreases and it increases depth of outreach in the studied periods. This implies that there seems no mission drift worry and profitable microfinance institutions in Ethiopia were serving the poor against the basic assumption of profitability and outreach trade-off. Thus, the proponents of sustainable microfinance in Ethiopia are more interested in opening access to a wide range of unserved or underserved clients. This result is in line with Rhyne (2001) and Francisco (2007) empirical evidence on Latin American microfinance institutions.

However, the various theories of microfinance and empirical studies stated that financial sustainability and depth of outreach are perceived as contradictory objectives. The basic assumption is that lending small credits to the poor carries a higher cost of operation, hence the prediction would be the larger the loan size, the more profitable and sustainable the institution. On this issue, Schreiner (2001) states, "greater loan size usually means more profitability for the lender but less depth of outreach for the borrower." He later adds that "the drive for profits for the organization tends to improve all aspects of outreach, except perhaps depth" (Schreiner, 2002). Breadth of outreach refers to the scale of operations of MFI. Breadth of outreach and sustainability are positively related, then both are inversely related to depth, so the larger the number of clients, the lower the depth or the larger the loan size. According to the breadth logic, the microfinance industry should have large-scale outreach in order to make a difference in the world's poverty levels. Likewise, the empirical evidence from this study showed the larger the number of clients served, the larger the average loan size, but the lower the depths of outreach. However, some argue that shallow depth can be compensated by the breadth of outreach or that it is even more important than depth (e.g. Navajas *et al.*, 2000; Robinson, 2001), and they conclude that the objective functions of microfinance institutions might thus differ in the weight they assign to different aspects of outreach.

Various researchers explained that depth of outreach has been also associated with gender distribution of the portfolio (Navajas *et al.*, 2000). These studies on women and development show that women are relatively poorer than men; therefore, any institution engaged in reaching mostly women should provide smaller loans. However, with respect to lending to women, the regression analysis in this study find no evidence of mission drift away from poorer borrowers along with increased women clients since the coefficient for this variable is not statistically significant. This is likely to reflect the finding that Ethiopian women do not seem to experience more difficulties than men in borrowing; for that reason institutions might not target exclusively women as clients, and therefore do they neither drift away from them.

The sign of the negative and statistically significant coefficient for the level of competition also indicates that the higher the concentration— or the lower the competition—the lower the loan size and it indicates less worry in serving the poor. If this variable accurately predicts loan size, then more competition in a microfinance market will also result in larger loan sizes, suggesting that institutions will probably search for profitable clients. However, the result indicates that there is less competition among the Ethiopian microfinance institutions but it seems high concentration might be due to, for instance, around 65% of the market share is held by ACSI (Amhara credit and saving institution) and DECSI (Dedebit credit and saving institution). This result is in line with Francisco (2007) empirical evidence on Latin American microfinance institutions.

However, commercialization of microfinance is also reflected by the mobilization of savings, and it plays a role in protecting against the seasonality of cash flows and fulfilling an insurance function. Morduch (2002) explained that though savings alone have only a minor developmental impact, the protection against shocks might allow children to remain in school or income-earners to get medical treatment and minimize time away from work and thus it reduces food insecurity, but it is slow to create any significant wealth in itself unless credit is also available. Similarly, microfinance institutions that focus on savings more than credit tend to reach a smaller proportion of the poorest, have a lower and slower impact on poverty reduction. Chen and Snodgrass (1999) recommend that to reach the poorest of the poor and to minimize their food insecurity credit should be proportionate to saving deposits. Thus, the table 2 shows the long-term co-integration between loans and deposits for logically linking the contribution of loan to saving capability and then food security of the poor.

Trace and max-egin tests from the Janson Fisher panel co-integration test between loans and deposits indicate there is co-integration. Based on the panel co-integration, we find that credits and savings are co-integrated, and the co-integrating coefficient is also significantly different from zero for individual cross sections. These findings imply that the credits and savings among the Ethiopian MFIs are moving together, that is, loans provided to the poor brings changes in terms of saving potential of the poor. This entails that if the saving capacity of the poor increases, it will help to protecting against the seasonality of cash flows and smooth consumption and thereby reduces food insecurity. Thus, commercialization of microfinance in Ethiopia does not lead to mission drift rather it seems commercialization helps microfinance institutions in Ethiopia to achieve their social and financial objectives.

5. Conclusion

The microfinance industry in Ethiopia seems successful which might be directly attributed to the commercialization phenomenon. After analyzing the financial and outreach data information provided by the Mix Market database, the results show that there is association between the commercialization factors and average loans sizes. The regression output indicates microfinance institutions in Ethiopia are serving the poor against the basic assumption of profitability and outreach trade-off though the trend of average loan size increases in the study periods. However, according to Cull *et al.* (2007), the increase in average loan size might be due to clients who have shown prudent repayment performance are able to reach larger loans because of progressive lending practices. In successful microfinance programs, the clients might have been able to develop and expand their businesses with earlier loans, which lead to increased income and a need for larger loans.

In addition, the co-integration between savings and credits also indicates the co-movement of deposits and loans with the implication of increasing saving ability of the poor and this in return might help to smooth seasonal income fluctuation and reduce food insecurity. Thus, keeping to its original mission of providing social and financial intermediation, the commercialized microfinance institutions in Ethiopia could reach new heights of financial and social success, measured in increasing of outreach, profitability and the establishment of a viable institution that could serve the poor long term. Thus, it seems there is less worry for mission drift rather there is mission enhancement.

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Dependent variables	Coefficient	p-value	
Constant	-145.84	0.0820*	
Age (years)	15.96	0.0005***	
Sustainability (ROA)	-9.19	0.0253**	
Breadth of outreach (# clients)	165.29	0.0000***	
Women (% of women as clients)	34.18	0.1817	
Competition (concentration)	-216.67	0.0000***	
$R^2 = 0.761$; R^2 adj. = 0.723; S.E. of reg	gression = 30.59; F-statistics =	19.65109; DW = 1.829	
*, **, *** significant at 10%, 5%, and			

 Table 1: Fixed effect model output: Depth of outreach as dependent variable

Table 2: Unrestricted	co-integration rank test	(Trace and Maximum E	ligen value)

Hypothesized	Fisher Stat.	Prob.	Fisher Stat.	Prob.
No. of CE(s)	(from trace		(from maxeigen	
	test)		test)	
None	263.2	0.0000***	245.1	0.0000***
At most	1 65.63	0.0004***	65.63	0.0004***

Trend assumption: No deterministic trend (restricted constant)