



Original Research Paper

Transaction costs and outreach of microfinance institutions in Uganda

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Microfinance institutions (MFIs) world over have been identified as critical institutions to nations' quest for solutions to their development challenges. The microfinance industry, which over the past years came under pressure to fill the poverty gap and become self-sustaining, has to some respect succeeded in doing so. In Uganda, several Microfinance institutions have set foot in the past decade. However, their outreach programs are still unnoticed. This study was undertaken as a result of the low outreach of MFIs, leaving some sections of Ugandans not in reach of microfinance services. The fact that these institutions are formed to fight poverty through outreach to the poor populations, their effect is expected to be much higher than what it is today. A quantitative research design was used in this study. Data were gathered using a questionnaire from 286 respondents that were purposively selected from 30 microfinance institutions operating in Eastern Uganda. These included; managers, credit administrators, supervisors, loan officers, product heads and clients. The data were coded and analyzed using descriptive statistics, correlation and regression analysis methods. The findings indicate that there is a significant positive relationship between transaction costs of MFIs and outreach ($r=.525$, $p<.05$). Findings further indicate that MFIs are incurring high transaction costs to serve clients. This in turn affects their abilities to reach clients.

Key words: Transaction costs, microfinance, outreach, Uganda

INTRODUCTION

Microfinance institutions (MFIs) world over have been identified as critical institutions to nations' quest for solutions to their development challenges (CGAP, 2002). The microfinance industry, which over the past years came under pressure to fill the poverty gap and become self-sustaining, has to some respect succeeded in doing so. A significant number of MFIs have taken important steps towards professionalization and transformation into well organized, well-managed and commercially viable institutions that provide financial services to an increasing number of clients with proven poverty reducing impact. The environmental conditions in which the Ugandan microfinance industry has thrived over the past years can generally be described as favorable. The industry is stabile, strong and has competent players.

Although there are over 1000 MFIs in Uganda focusing on economic development and poverty eradication, 62% of Ugandans are not served by any form of financial institution and only 3% of those having access to credit are served by Microfinance institutions (Kaggwa, 2010). Several factors have been advanced for this situation. For example, inability of microfinance institutions to maximize outreach could be associated to the costs involved therein, the interest rate set below costs recovery levels, high delinquency rates, poor management and inefficient allocation of resources. These are the few causes often cited as being responsible for the unsatisfactory outreach (Dackauskaite, 2009). Financial literacy and transaction costs could further extend the list.

Considerable research efforts have been dedicated to

microfinance. Studies have been conducted on access to microfinance (Claessens and Feijen, 2006; Littlefield et al., 2003), the economics of group lending (Besley and Coate, 1995; Ghatak and Guinnane, 1999; Paxton et al., 2000), the building of inclusive financial sectors (Helms, 2006; United Nations, 2006) as well as the development of theory (Aghion and Morduch, 2005). These studies have provided the industry with important knowledge and benchmarks (www.mixmarket.org). However, empirical progress on better understanding the effect of transaction costs on outreach programs is still held back by the lack of reliable cross-country data. Therefore, we sought to establish the extent to which transaction costs affect the outreach of microfinance institutions in Uganda.

LITERATURE REVIEW

This section presents a review of the relevant literature about transaction costs and outreach programmes of microfinance institutions.

Transaction costs

The economic importance of transaction costs is widely recognized (Seguja, 2009). Rotke and Gentgen (2008) argue that transaction costs refer to the cost of carrying out a transaction by means of an exchange on the open market and are associated to the division of work. Transaction costs reflect the economic costs that organizations incur both outside the firm and inside the firm and are one means by which the efficiency of different institutions can be measured in particular environments (Polski & Kearney, 2001). The existence of transaction costs in loan market implies that financial institutions must become more actively involved in monitoring activities and strategic behavior of firms because financial institutions invest substantial amounts of funds in business firms (Williamson, 1985). Many governments and international financial institutions have tried to address the problems of high transaction costs (A.P.E.I.S, 2007). However, in the current empirical studies, transaction costs are not directly measured, but rather proxies such as uncertainty, transaction frequency, asset specificity, opportunism and so on are used instead. These are believed to critically affect the costs of doing transactions (Pessali, 2006). Transaction costs are typically at the heart of most discussions on mission drift.

Using loan size as a proxy for the poverty level of clients, Cull et al. (2008) indicated that MFIs with the highest profit levels perform the weakest in terms of outreach. Also, larger loan sizes are associated with lower average cost, which supports the idea that those institutions that target poorest borrowers struggle more with financial viability. Transaction costs in credit markets therefore are indirect

financial costs generated by various processes, including the cost of searching and collecting relevant information. They are indirect costs caused by frictions in the flow of credit funds, preventing credit markets from reaching efficient market equilibrium (Nalukenge, 2003).

Consequently transaction costs of lending consist of the costs of administering credit, coordination costs and the costs of the risk of default. It is further highlighted that administrative costs are those which are directly attributable to the processing, delivering and administering of loans while coordination costs are those resources a financial institution dedicates to ensuring that clients adhere to terms stipulated in loan contracts (Saito & Villanueva, 1981). According to Polski and Kearney (2001), banking activities generate two types of transaction costs, which are subject to different political and economic influences. One type of transaction costs, interest expense, reflects the costs of funds for banking activities and the second type, non-interest expense, reflects the costs of information and co-ordination. Shankar (2007) went further to break down transaction costs into direct and indirect. Direct transaction costs consist of training costs, cost of direct administrative activities and cost of monitoring. Shankar (2007) further noted that indirect transaction costs include allocated fixed costs of the branch office, regional office and head office, depreciation and taxation costs. These costs significantly influence MFI's decisions to undertake outreach programmes.

Ledgerwood (2000) argues that finance in the form of savings and credit arises to permit coordination. The availability of savings to financial institutions facilitates the intermediation exercise and reduces its overall weighted cost of capital (Pischke, 1991). Beesi and Wang (1997) extended the debate and noted that since the savings are less costly and form the loaned amount to borrowers, the loan charges including interest rates and other service charges are expected to be lower. Other scholars such as Winton et al. (2000) noted that the intermediation of funds connects financial institutions to borrowers and lenders and improves the cost of capital to the borrower. Though the extant literature emphasizes the association between financial intermediation and loan costs, there is far from enough empirical research investigating the practical effect of transaction costs on lending interest rates in microfinance institutions.

Firms thus adopt governance forms that minimize the sum of transaction costs (Zhao et al., 2004). However, the governance design fails if it does not take into account the relationship between informal norms and formal structures. Further still, transaction cost economics may lead people to use the wrong governance mechanism or the right mechanism either for the wrong reason or in the wrong way (Husted & Folger, 2004). Worst still, we encounter serious controversy among economists regarding the theoretical definition of transaction costs.

Several economists have noted that the definition of transaction costs is elusive and contested (Shankar, 2007). The concept has even aroused a certain degree of intellectual derision and bad names such as “a theoretical device” because there is a suspicion that almost anything can be rationalized by invoking suitably specified transaction costs (Schlag, 2007).

Generally, the costs incurred by the MFIs vary widely depending upon the loan products offered, total number of clients, loan size, cost of borrowing, nature of the organization, area of coverage for the branch office, size of staff compliment at each branch, periodicity of collection, mode of collection i.e., at doorstep/ common place, individual or group and method of transaction (Khan, 2007).

Loan monitoring costs

Monitoring costs are the costs of loan utilization checks and collection of installments (Shankar, 2006). Field members of staff spend additional time with a group if there is a problem or potential problem in the group (Nitin, 2006). These costs include ‘the cost of minimizing risk through monitoring and follow-up of disbursed loans, exercising internal control and undertaking external audit of the MFIs (Hardy et al., 2002). Frequent cash-based and small-value transactions entail a significant amount of field time and limit the number of accounts that a credit officer can handle per visit on the whole (Dwivedi, 2009).

The small size of the loan and the presence of numerous borrowers make investment, in addition to screening and monitoring efforts, an expensive proposition. In the absence of any collateral, when the borrowing group defaults, there must be monitoring by the lender in order for there to exist equilibrium for a perpetual debt (Cheung 2007). However, the challenge lies in finding the level of flexibility in the credit instrument that could make it match the multiple credit requirements of the low income borrowers without imposing unbearably high cost of monitoring its end-use upon the lenders (Vetrivel, 2010).

Outreach of microfinance institutions

The fundamental problem and the most important challenge in the microfinance industry is how to fill the enormous gap between the effective demand for a wide range of micro financial services and the supply of such services on a sustainable basis. This is universal (Fernando, 2003). Conning (1999) defines outreach as “... term typically used to refer to the effort by MFIs to extend loans and financial services to an even wider audience (breadth of outreach) and especially towards the poorest of the poor (depth of outreach).” In this definition, outreach is reflected as an effort made to provide loans and financial services to the poorest of the poor. Therefore, outreach measures

indicate the social benefits of microfinance (Barry, 2009).

As an aspiration, MFIs are called upon to reach a large public and to have a significant and increasing volume of activities such as savings, credit, and insurance (Alam, 1999). Schreiner (1999) proposes that outreach consists of six dimensions; worth of outreach, cost of outreach, scope of outreach, length of outreach, depth of outreach and breadth of outreach, each of which is also arguably a component of social value. No single aspect or combination of aspects can be considered in isolation from others.

Number of clients

The number of active borrowers is an indicator of both breadth and scale of outreach. Convention holds that the scale of outreach is inversely related to costs and positively related to profitability because the fixed costs of production are amortized across a larger number and value of outputs (Adams, 1998). The number of active clients includes borrowers, depositors, and other clients who are currently accessing any financial services. This indicator is more useful than the cumulative number of loans made or clients served during a period (Rosenberg, 2009).

The number of borrowers is thus hypothesized to be positively associated with outreach (Rhyne et al, 1994). A strategy that responds to the clients’ requirements and situation would not only assist microfinance institution in achieving its goal of outreach, but would also enhance the possibilities of the poor clients to participate in the microfinance programs thereby facilitating their efforts to escape or alleviate poverty (Dackauskaite, 2009).

Transaction costs and outreach

Conning (1999) argues that group based methodology relies more on intensive loan monitoring and social transactions instead of traditional collateral. However, these practices can be costly. Intensive monitoring and delegation costs within the MFI may increase exponentially as services are extended to poorer clients (Schreiner, 1999). The microfinance institutions that aspire to work on sustainable basis often have to sacrifice the depth of outreach and to target clients who are not so poor, as transaction and service costs of the very poor clients are high while the loans they take are very small (Dackauskaite, 2009).

According to Schreiner (2001), greater loan size usually means more profitability for the lender but less depth of outreach for the borrower,” and later adds that “the drive for profits for the organization tends to improve all aspects of outreach, except perhaps depth” (Schreiner, 2002). MFIs charge high rate of interest that covers operational, funding, and imputed funding costs leading to a fall in breadth and depth of outreach (Woller, 2004).

Churchill et al., (2002) describe why serving the extreme

Table 1. Study sample

Title	No of respondents
Managers	34
Credit administrators/supervisors	25
Loan officers	115
Product heads	17
Clients	95
Total	286

Source: MFI survey, 2013

Table 2. Validity and reliability results

Variable	No of items	CAC	CVI
Group development costs	9	.663	.782
Administration costs	8	.771	.7001
Monitoring costs	8	.762	.675
Outreach	6	.628	.719

poor or those in remote areas is costly: 'reaching the poor implies delivering services near their homes, which requires more staff time and greater internal controls. These strategies increase transaction costs. Managing a range of customized services can also drive up costs, making it difficult to viably serve the very poor. In particular, customized services will require field staff with a higher level of skills' (Woller, 2004).

RESEARCH METHODS

A quantitative research design was adopted for this study. Data were gathered using a questionnaire, which had been pretested for reliability and validity. The study population was 30 microfinance institutions that operated in the eastern parts of Uganda. Out of the 30 micro finance institutions, 25 were selected purposively to participate in the study. The factors considered in selection were the size, area of coverage, geographical location such that both urban and rural based microfinance institutions were included in the study. Out of the 25 selected institutions, 286 respondents were selected to participate in the study. The respondents were also purposively selected such that the sample included managers, credit administrators, supervisors, loan officers, product heads and clients. Table 1 below shows the sample breakdown:

As earlier stated, the data collection questionnaire was pretested for validity and reliability using Content Validity Index and Cronbach Alpha Reliability Coefficients. Table 2 shows pretest results:

Results in Table 2 above show that the research questionnaire was reliable and valid. This is because Cronbach Alpha reliability Coefficients (CAC) and Content

Validity Index (CVI) were above 0.6.

Data analysis and presentation

Data were coded and analyzed using descriptive statistics, correlation and regression in SPSS software. Data were presented using tables.

PRESENTATION OF RESULTS

This section presents the findings from primary data. We analyze the various costs incurred by microfinance institutions in Uganda, including administrative costs, finance costs, transactions and outreach. Thereafter, we use correlation and regression techniques to determine the relationship between the independent and dependent variables.

The level of transaction costs of MFIs

Group development costs

Data were collected to analyze the elements of group development costs of MFIs. Results in Table 3 show the percentage distribution of MFIs' group development costs:

Regarding group development costs, most MFIs agreed that they incur a number of costs on issues of; forming new products (49.4%), training clients (62.5%), helping clients to form groups (40.0%), and training clients to manage business (60.0%). As indicated in Table 3, majority of the MFIs agreed that training takes a big percentage of their costs (25.3%); their training costs are on the increase (38.8%); hiring consultants to train their staff (63.8%) and taking time to train their staff.

Table 3. Group development costs

Variable	Majority opinion	Percentage
We regularly incur costs when forming new products	Agree	49.4
We normally incur costs to train our clients	Agree	62.5
We usually incur costs helping clients to form groups	Agree	40.0
We always offer training to our clients on how to manage business	Agree	60.0
Training takes a big percentage of our costs	Agree	25.3
Our training cost have been on the increase	Agree	38.8
We usually hire consultants to train our staff	Agree	63.8
We take time to train our workers	Agree	68.8
We incur high costs on forming groups	Agree	43.8

Source: MFI survey, 2013

Table 4. Administration costs

Variable	Majority opinion	Percentage
We usually incur costs of appraising our clients' loan application	Agree	70.0
We usually incur a lot of costs on documentation of clients application	Agree	70.0
Costs of search of information about clients are always high	Agree	60.0
We charge small amounts of administration costs to our clients	Agree	61.3
We regularly review supervision cost of branch managers	Agree	46.3
We regularly incur costs on debt collection	Agree	70.9
We usually incur legal charges on our clients	Agree	39.2
We regularly incur costs on identifying and screening our clients	Agree	68.4

Source: MFI survey, 2013

Table 5. Administration costs

Variable	Majority opinion	Percentage
This firm makes regular visits to our clients' premises	Agree	68.4
We have procedures in place for management of loans that we extend to our clients	Agree	69.6
We regularly make visits to our clients	Agree	72.2
We usually incur compliance costs towards making our clients pay back freely	Agree	67.1
Our clients regularly disclose their periodical financial reports to us	Agree	53.2
Our good relationship with our customers has reduced supervision costs	Agree	65.8
We have a policy in place about enforcement and loan recovery	Agree	67.1
We always incur costs on investigations about our clients	Agree	67.1

Source: MFI survey, 2013

Administration costs

Data were also collected to examine the levels of administration costs of MFIs. Results in Table 4 show the percentage distribution of MFIs' administration costs:

Similar to revelations in Table 3, Table 4 also shows that most of the MFIs agreed to usually incurring costs on; debt collection (70.9%), appraising clients' loan applications (70.0%), documentation of clients' applications (70.0%) and identifying and screening clients (68.4%). MFIs also incur administration costs (61.3%), and costs of searching for information about clients (60.0%), in addition to , legal charges on clients (39.2%), having high.

Monitoring costs

Regarding the levels of monitoring costs of MFIs, results in Table 5 show the percentage distribution of MFIs' monitoring costs.

The revelations about MFIs' monitoring costs in Table 5 did not differ from those about the group development costs and administration costs, in that again for most MFIs, having procedures in place for management of loans that are extended to customers (69.6%), there is agreement about; making regular visits to clients' premises (68.4%), incurring compliance costs towards making clients pay back freely (67.1%), having a policy in place about

Table 6. Outreach of Microfinance Institutions

Variable	Majority opinion	Percentage
We have the biggest geographical coverage in this region/area	Disagree	50.8
Our products extend to the community	Agree	64.0
The geographical location of our clients is important tom us	Agree	47.2
We serve many clients	Agree	78.5
Our clients live in urban places/centers	Agree	65.7
Our products are known by the clients	Agree	68.1

Source: MFI survey, 2013

Table 7. Pearson’s Correlation

Variables	1	2	3
Transaction Costs	.182*	1	
Outreach	.085	.525**	1

**Correlation is significant at the 0.01 level
 *Correlation is significant at the 0.05 level

Table 8: Regression results

Outreach	Unstandardized Coeff.		Standardized Coeff.	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.834	.507		3.616	.000
Transactions Cost	.714	.107	.461	6.697	.000
R Square	.294		F Statistic		32.921
Adjusted R Square	.275		Sig. (F Statistic)		.031

Source: MFI survey, 2013

enforcement and loan recovery (67.1%), reduced supervision costs due to good relationship with clients (65.8%), incurring costs on investigations about clients (67.1%) and regular disclosure of their periodical reports (53.2%).

Outreach of microfinance institutions

Further, primary data were gathered to study how MFIs conducted their outreach programs. Table 6 presents the findings:

Data in Table 6 show that the respondents agreed that their products are well known by clients (68.1%), their clients live in urban centers (65.7%), they serve many clients (78.5%) and also that their products extended to the community (64.0%).

The respondents, however, disagreed that they have the biggest geographical coverage in the region (50.8%) and also that the geographical location of their clients was important (47.2%).

Relationship between the variables

To further understand how transaction costs related to or affected outreach programs of microfinance institutions in eastern Uganda, we used Pearson’s correlation. Table 7 shows the results:

Results in Table 7 above indicate that there is a significant positive relationship between transaction costs of MFIs and outreach to clients ($r=.525, p<.01$). This implies that outreach increases transaction costs. Transaction costs of MFIs were therefore found to be directly related with the MFIs levels of outreach to clients.

Regression analysis

In addition to correlation, multiple regression analysis was run to examine the nature of relationship that transaction costs had on outreach of MFIs. Table 8 shows the results.

Regression results in Table 8 show that transaction costs explain 29.4% (R-Square = 0.294) of the variation in the outreach of MFIs. The results also show that at $p < 0.01$

level of significance; the variables linearly predict 29.4% of the variations in outreach. Transaction costs had a positive effect on the outreach of MFIs ($\beta = .32.921$, $p < .01$), implying that the more MFIs spend on their activities, the higher the level of the outreach activities.

DISCUSSION OF FINDINGS

This study found out that transaction costs of MFIs and their outreach to clients are positively correlated ($r = .525$, $p < .01$), an indication that the transaction costs of MFIs were directly related with the levels of outreach to clients. Outreach costs were found to be higher in areas where more group development and monitoring activities were involved the high group development costs, administration costs and monitoring costs were found to have a strong influence on the MFIs levels of outreach. Indeed, transaction costs like costs of training clients (62.5%), and costs of visiting clients' premises (68.4%), lead to increased awareness of MFI's services that is evidenced by clients' awareness of products offered (65.8%) and the increasing number of clients (68.4%) accessing MFI's services.

These findings above are similar to those of Churchill et al (2002) who found that serving the extreme poor or those in remote areas is costly as it implies delivering services near to their homes, and that requires more staff time. Similar findings by Conning (1999) indicated that group based methodology relies more on intensive loan monitoring and social transactions instead of traditional collateral which are costly and hence high costs need to be incurred if MFIs are going to reach out to the un-bankable clients.

Conclusion

From this study, transactions costs were found to significantly influence the levels of outreach of MFIs. MFIs therefore need to identify and invest more in costs like group development and loan monitoring that will help them get in touch with existing and potential customers. This will in the long run lead to better working relationship between the MFIs and their clients and hence increased outreach.

RECOMMENDATIONS

MFIs need to come up with village groups techniques. Many MFIs were found to be renting places and providing spaces that act as group meeting places which lead to high administrative costs in terms of rent. MFIs can look at an option of holding these groups and training them from villages (their localities) as this can reduce on the

administrative costs of renting space. The setting up of these village group groups also help in outreach as the services are brought nearer to clients, making it easy for other village members to join.

REFERENCES

- Adams, Dale W (1998). The decline of debt directing, an Unfinished Agenda, paper presented at the second annual seminar on the New Development Finance, Frankfurt.
- Aghion Armendariz de B, Morduch J (2005). The Economics of Microfinance, MIT Press: Cambridge. CGAP Occasional Paper, 9, CGAP/ the World Bank Group: Washington D.C.
- Barry TA (2009). Governance, Performance and Diversification: Evidence from African Microfinance Institutions: University de Limoges France.
- Churchill C (2002). New Directions in Poverty Finance Village Banking Revisited the Small Enterprise Education and Promotion Network.
- Conning J (1999). Outreach, Sustainability and leverage in monitored and peer monitored Lending, *J. Dev. Econ.* 60:51-77.
- Dackauskaite A (2009). Client exit in microfinance, Thesis submitted in partial fulfillment of the requirements for the degree in Master of Science in international development studies faculty of Geosciences of Utrecht University
- Dwivedi R (2009). Successful management strategies to reduce competitive cost without affecting productivity: Project report on reducing competitive cost without affecting productivity.
- Fernando NA, Patricia P (2003). Profitable microfinance outreach, with lessons for Asia, Calcetas Asian Development Bank regional and sustainable development department Asian Development Bank 2003
- Helms B, Reille X (2004), Interest rate ceilings and microfinance the story so far. Consultative group to assist the poor, available at: www.Cgap.org. Washington D.C
- Kaggwa M (2010). Challenges of policy making for financial inclusion Commissioner Microfinance department, ministry of finance, planning and economic development.
- Khan HR (2007). Report on costs and margins of microfinance institutions. Reserve bank of India College of agricultural banking university road pune - 411016
- Ledgerwood J (1999). Microfinance hand book of sustainable banking with the poor: An institutional financial perspective. The World Bank, Washington, D.C
- Nalukenge IK (2003). Impact of Lending Relationships on Transaction Costs Incurred by Financial Intermediaries: A dissertation presented in partial fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University .
- Nitin A (2006). Costing of microfinance institutions:

- Microfinance commercial team, rural microfinance banking and agribusiness group. ICICI BANK
- Pessali HF (2006), the rhetoric of Oliver Williamson's transaction cost economics. *J. Inst. Econ.* 2(1):45-65
Cambridge University Press
- Polski MM, Kearney AT (2001). Measuring transaction costs and institutional change in the U.S. commercial banking industry
- Rotke NB, Gentgen J (2008). Workout management of non-performing loans: A formal model based on transaction cost economics. *J. Prop. Investment Financ.* 26 (1):59-79.
- Saito KA, Villanueva DP (1981). Transaction costs of credit to the small-scale sector in the Philippines, *Economic Development and Cultural Change*, 29(3):631-640.
- Schreiner M (1999). Aspects of outreach: A framework for discussion of the social benefits of microfinance. *J. Int. Dev.*, Center for social development George Warren Brown School of social work, Washington University.
- Shankar S (2006). Transaction costs in group micro credit in India. *Management decision*, (45) 8:1331-1342.
- Woller G Mark S (2004) .“Measuring Outreach” Conceptual Workshop Proceedings. pp. 22-23.