

An Exploratory Study Of Financial Inclusion And Intermediation In Techiman Municipality: The Role Of Microfinance Institutions

Augustine Adu Frimpong¹, Albert Agyei², Oteng Evans³

¹Department of Business, Valley View University, Techiman Campus, P.O.Box 183, Techiman, Ghana.

²Department of Business, Valley View University, Techiman Campus, P.O.Box 183, Techiman, Ghana.

³Department of Business, Valley View University, Techiman Campus, P.O.Box 183, Techiman, Ghana.

ABSTRACT

The study scrutinizes the position of microfinance institutions in Ghana by focusing on Techiman municipality. The study used a sample size of 600 respondents and adopted recursive approach. The descriptive analysis took into account bar-graphs and tables. The quantitative analysis used probit regression model to analyze and assessed the question of whether the role of the Microfinance institutions should be considered as part of financial inclusion and intermediation in the financial market. The study found out that microfinance do not do very well or good as compared to the banks in the financial market in terms of risk sharing. But it ascertains a good performance towards risk sharing or assets transformation in terms of its security of reliability. Also, the study found out that microfinance has improved upon the financial life's of the inhabitants since majority of the respondents were of the notion that microfinance has impacted positively on the financial life of the inhabitants in the community. Again the study, found out that the microfinance institutions have brought about a good growth to the financial market since about 49.13% of the respondents rated the growth performance by the MFIs to the financial markets as good. The study recommended that stakeholders should enact policies and regulations to check the operational activities of the microfinance institutions for sustainability.

Keywords: Microfinance, financial market, financial inclusion, financial intermediation Risk sharing, Transaction cost and asymmetric information.

1.0 INTRODUCTION

Financial system is the collection of markets, individuals, institutions, laws, regulations and techniques through which bonds, stocks and other securities are traded, interest rates are determined and financial services are produced and delivered (Mishkin, Matthews & Giuliadori, 2007, p.38). According to Mishkin, et al., (2007), the polemical role of the financial institution is the intermediation. Financial intermediation is very vital in the financial market which tends to address the problem of transaction cost, risk sharing and the asymmetric information that existed in the financial market. Financial intermediaries stand between the lenders and borrowers to transfer funds from one household to the other. The time and money spend in carrying out transaction are a major problem for people who have larger incomes to lend.

In Ghana the emerging scourge of the microfinance is to serve the neglected people who have been denied access to the financial market due to the financial panic and higher transaction cost that would have been encountered at the formal banking systems. Microfinance is the practice of providing loans or credit and other financial services (such as savings accounts or insurance) to poor individuals in the developing world. The emergence of microfinance is to

promote financial inclusion, so that working age adults such as petty traders, farmers, carpenters, etc. can have access to financial services whether for personal use or to fund business ventures. Microfinance addresses the deprivation of goods and services, thereby lifting the living standards of households and in the long run, communities.

About 40% of the Sub-Saharan African population still live under the poverty line. Unfortunately, the rate of poverty reduction has not kept up with economic growth in Africa. The majority of people living in poverty are unemployed and unbanked, and therefore do not have access to formalized credit lines. Microfinance is an opportunity to provide a wider access of financial services to the neediest on the continent to enable them to become productive and earn a living for themselves. Microfinance has however evolved, and now includes a broader range of products including savings, money transfers and insurance. Banks were historically unwilling to provide these services to the poor. Credit and other banking services were reserved for people who already had an income, excluding the poor from accessing banking and financial services. In the case of Techiman Municipality which is dominated by farmers, petty traders, etc., a lot of microfinance institutions have evolved to assist them financially. Microcredit was mainly

used in order to smooth consumption, start or develop a business, and for emergencies.

The objective of the study is to assess the role of microfinance institutions in financial inclusion and intermediation at Techiman municipality. This is to unearth the focal role of financial inclusion and intermediation programs of microfinance institutions in the Techiman Municipality of Ghana.

2.0 LITERATURE REVIEW

Christabell and Vimal (2012) embarked on a study on financial inclusion in rural India. The study intended to achieve the following objectives; thus to examine the extent of financial exclusion in rural India, to enquire into the role of microfinance in helping the rural population in the case of financial inclusion, to study the extent of progress made by microfinance in rural India, and to look into the challenges ahead for microfinance in India. The study used Secondary sources of data. Data published by various institutions such as Government of India, World Bank, Consultative Group to Assist the Poor (CGAP), Reserve Bank of India (RBI), National Bank for Agriculture and Rural Development (NABARD, State Level Bankers Committee (SLBC), etc.. The study found out that about 51.4% out of the total 89.3 million households do not have access to credit either from institutional and non-Institutional sources. Further, only 27% of the total farm households are indebted to formal sources.

Arguments in favour of microfinance being a mechanism for reducing poverty as part of financial inclusion and intermediation has been made and there is strong opinion that the productive base of the poor will improve if they are given access to credit since they have been rejected by the formal banking system very longtime (Montgomery & Weiss, 2005).

3.0 METHODOLOGY

The study used both qualitative and quantitative analysis. Questionnaire and interviews were used to retrieve all the relevant information needed for the study. Non-probability sampling methods were used for the study in the distribution of questionnaires. Both convenience and purposive sampling approaches were used for the entire study. The purposive sampling approach was used to sample the managers and staff of the microfinance whereas the convenience sampling was used to sampled the microfinance participants, in order to ensure an efficient way of conducting the research, considering the time and cost factor of the research. The study sampled 600 respondents. Which included 480 participants of microfinance and the remaining 120 envisage the staff/employees managing the microfinance institution at

the municipality. The study used SPSS and STATA software's in the processing and interpretation of the data gathered from the field. A probit model was used to reveal the impact of the financial inclusion on the role of intermediation.

3.1 MODEL DESIGN

Two basic equations were conceptualized from the Probit regression model for the purpose of the study to identify the effects of microfinance on financial inclusion as well as the intermediation role. The first equation represents the effects of microfinance on the financial inclusion whereas the second equation represent the effects of microfinance on the role of financial intermediation. The study followed Beggs, Cardell and Hausman (1981) probit model analysis. All the dependent variables such as savings, loans, "susu", minimizing transaction cost, risk sharing and minimizing the problem of asymmetric information which were coded as a binary, the probit approach is used for estimating the regression function in the two equations below;

$$\Pr (F_C=1) = \Phi (\alpha_0 + \alpha_1\text{Age} + \alpha_2\text{SEX} + \alpha_3\text{INC} + \alpha_4\text{MFI} + \epsilon) \dots \dots \dots \text{Equation 1}$$

$$\Pr (F_{IT}=1) = \Phi (\alpha_0 + \alpha_1\text{Age} + \alpha_2\text{SEX} + \alpha_3\text{INC} + \alpha_4\text{MFI} + \epsilon) \dots \dots \dots \text{Equation 2}$$

Where

F_C = Financial Inclusion: F_C is a dummy variable. If yes=1 and no=0. The dependent variables ranges from one (1) to three (3) for where 1= Savings, 2= Loans, 3= Susu and they are dummies (whether the MFI offers the following services or not: if yes =1 and no=0). Here, the respondent has to choose the account they are operating.

F_{IT} = Financial Intermediation: F_{IT} is a dummy variable. If yes=1 and no=0. The dependent variables ranges from one (1) to three (3) for where 1=Risk sharing, 2= Solving the problem of Asymmetric Information, 3= Minimizing Transaction cost are dummies (whether the MFI offers the following intermediation services or not: if yes =1 and no=0).

SEX= Gender (If female=1 and male=0)

INC= Income/Earnings

MFI=Microfinance Involvement

Φ = Cumulative standard normal distribution function

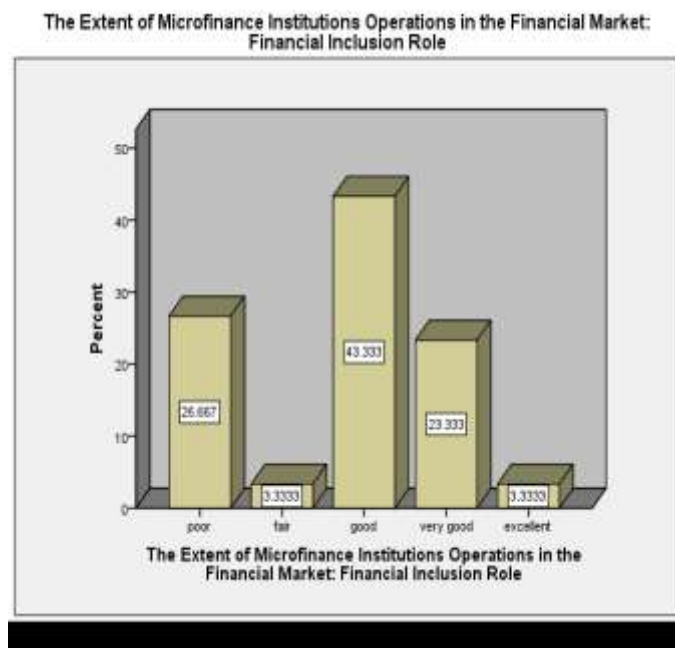
ϵ =Error-term

3.2 STUDY HYPOTHESIS

In relation to the financial inclusion model. Theoretically, the saving accounts, “susu” accounts and Loans accounts equations are expected to be positively related to gender if the respondent is a female, income level of household and their involvement with microfinance operation as a customer. However, in relation to the financial intermediation model. Theoretically, the risk sharing, asymmetric information and minimum transaction cost equations are expected to be ambiguously related to gender, income level of household and their involvement with microfinance operation as a customer but rather depends on the empirical data.

4.0 RESULTS AND DISCUSSION

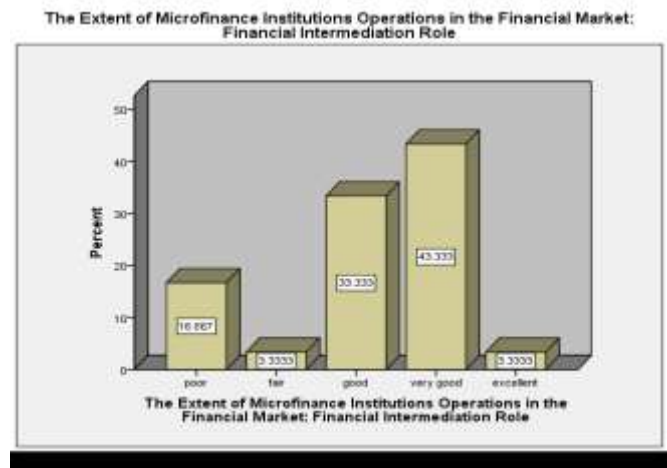
Figure 1: The Extent of Microfinance Institutions Operations in the Financial Market: Financial Inclusion Role



Source: Field data, December, 2014

Figure 1 shows the extent of microfinance institutions operations in the financial market as part the financial inclusion role. The role of the MFIs in the financial markets exhibited a good performance towards its inclusion role. That is about 70% of the respondent had the view that microfinance institutions are performing well in the financial market. About 27% of the respondents were of the view the performance of microfinance institutions in discharging its financial inclusion role is poor whereas 3% of the respondents were indifferent.

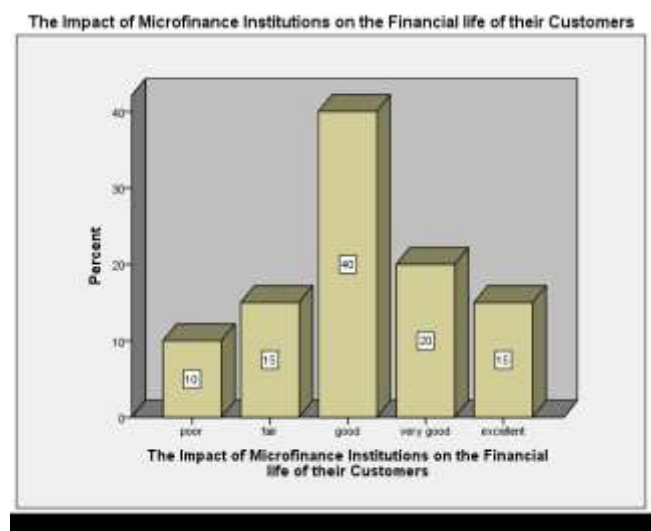
Figure 2: Extent of Microfinance Institutions Operations in the Financial Market: Financial Intermediation Role



Source: Field data, December, 2014

Figure 2 shows the extent of microfinance institutions involvement in the financial market as part of the financial intermediation role. From the data obtained, the results of figure 2 shows the MFIs intermediation role in the financial market exhibited an outstanding performance. From the results about 80% of the respondents had the opinion that the microfinance institutions are doing well by discharging its intermediation role in the financial market. About 17% of the respondents were of the view that, the performance of microfinance institutions in discharging its financial intermediation role is poor whereas about 3% of the respondents were indifferent.

Figure 3: The Impact of Microfinance on the Financial Life of their customers

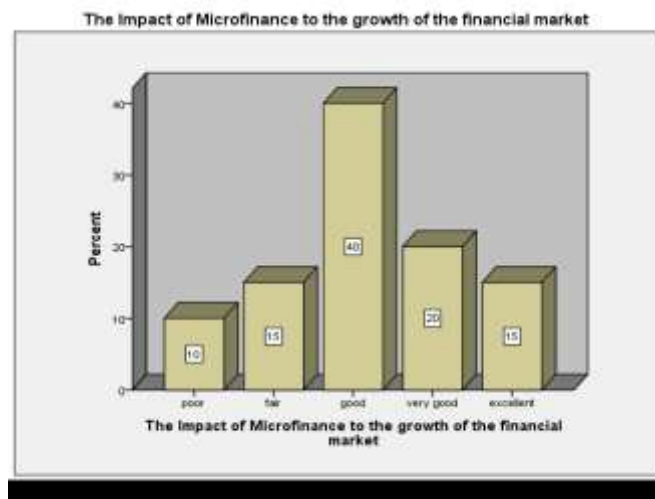


Source: Field data, December, 2014

The figure 3 shows the extent of effects or the impact of the MFIs on the financial life of the individual respondents which includes the customers, employers and the employees to the MFIs. The result shows that MFIs have exhibited a good and very good performance in improving the financial life of the respondents. From the data obtained, about 75% of the total respondents had the opinion that Microfinance

operation has improved the financial life of their customers. However, 10% of the respondents were of the view that, the impact of microfinance institutions on their customers is poor due to situation elsewhere where microfinance institutions runaway with people’s money whereas 15% of the respondents were indifferent.

Figure 4: The Impact of Microfinance Institutions to the Growth of the Financial Market



Source: Field data, December, 2014

The figure 4 shows the impact of growth of the MFIs on the financial market as part of their financial inclusion and intermediation role. From the data obtained, 75% of the respondents were of the view that microfinance institutions operations have impacted a lot to the growth of the financial markets. The 75% of the respondents chose good, very good and excellent impact of growth microfinance have brought to the market. However, 10% of the respondents were of the view that, the impact of microfinance institutions to the growth of the financial market is poor due to situation elsewhere where microfinance institutions runaway with people’s money and leave them depressed whereas about 15% of the respondents were indifferent.

PARAMETRIC ANALYSIS OF THE PROBIT MODEL

Table 1: Probit Regression Analysis for the Financial Inclusion Model

VARIABLES	SAVINGS	LOANS	SUSU
AGE	0.036782 (0.0047677)	-0.0362831 (.0043238)	-0.2004989 (0.0036709)
GENDER (SEX)	-0.2408526** (0.0203247)	0.2025585** (0.0468304)	0.243411** (0.06732911)
INCOME (INC)	-0.0302253 (0.0001302)	0.0331460 ** (0.0112007)	0.0052941** (0.00031892)
MICROFINANCE (MFI)	0.207324 ** (0.1012644)	0.3546725 ** (0.13337100)	0.2563485** (.09317656)
OBSERVATION	600	600	600
R-Squared	0.6024	0.6295	0.6242

Note: Standard errors are presented in parentheses. *, ** and *** denote significance at the 10%, 5% and 1% level, respectively.

Source: Field data, December, 2014

The table 1 shows the financial inclusion equation which takes into accounts the savings, loans and the ‘susu’ equation. In relation to the regression, estimate of the various accounts more than 60% variation in the savings, loans and ‘susu’ accounts respectively is explained by the variation in age, gender, income and the microfinance participation variables. In the Savings accounts equation, age and income were not statistically significant to the equation at 5% significance level since their p-values were

greater than 0.05. But gender and microfinance participation show a significant impact on the savings account which makes them very relevant to the equation since their p-values are less than 0.05.

The gender as a variable which takes into account the females as the treatment group and the males as the control group exhibited a negative significant impact on the savings account as compared to the control group (males). This

implies that female customers do not support the savings accounts operations in the institutions since they are seen as vulnerable ones and poor in the society. Microfinance participation variable shows a positive significant impact on the savings function at 5% significance level. This implies that as microfinance participation increases, savings accounts also increases.

With regards to the Loans accounts equation, only age of respondents tends to be irrelevant to the equation since its p-value was greater than 0.05. But the following variables gender, income and microfinance participation were statistically significant to the Loans accounts equation since their p-values are less than 0.05. The gender as a variable shows a positive significant impact on the Loans accounts. This implies that gender and loans moves in the same direction, i.e. whenever gender (females) increases, loans application and acquisition also increases. The reason is that most of the respondents were females and work in the lower income groups as farmers and traders. So in order to expand their businesses calls for financial assistance of loan from banks, financial services and microfinance institutions. Again, income levels of customers exhibited a positive significant impact on the loans equation since its p-value is less than 0.05. The reason is that since the majority of the respondents were females and falls within the lower income occupation groups such as farming and trading, for their income levels to go up needs loan from available financial institutions. This implies that whenever the respondents need more money (income), loans application and request goes up. The microfinance participation as a variable exhibited a positive impact on the loans account since its p-

value is greater than 0.05. The reason is that, as microfinance institutions increases, avenues for loans application and disbursement also increases for the poor.

In relation to the Susu accounts equation, only age of the respondents was not relevant to the equation since its p-value is greater than 0.05. The following variables such as gender, income and microfinance participation were statistically significant to the Susu equation since their p-values are less than 0.05. The gender as a variable with the females as treatment groups exhibit a positive significant impact on the Susu accounts. This implies that as the customer base of females' increases, Susu accounts with the institution increases. This helps the market women, traders, and farmers etc. to mobilize funds to invest or indulge in the savings accounts aftermath. This was common among the market women, traders, farmers etc. in the nut-shell among the lower income earning groups. The income as a variable also exhibited a significant positive impact on the Susu accounts. This is very true that microfinance institution targets the lower income groups because lower income groups such as petty traders, market women, tailors, etc. tends to engage in the Susu accounts in order to mobilize some funds to expand their businesses. Lastly, microfinance participation has shown a significant positive impact on the Susu accounts from the financial inclusion function. The reason is that microfinance institution has serve as an avenue for the neglected group of peoples in the society by the commercial banks to aid them exercise their financial franchise. The increase in the microfinance institution tends to increase the Susu accounts in the economy.

ANALYSIS OF THE PROBIT REGRESSION RESULTS FOR THE FINANCIAL INTERMEDIATION EQUATION

Table 2: Probit Results for the Financial Intermediation Equation

VARIABLES	RISK SHARING	TRANSACTION COST	ASYMMETRIC INFORMATION
AGE	-0.0032218 (0.0046819)	-0.0203887 (0.0047517)	0.0207104 (0.0038126)
SEX	-0.0237306 ** (0.00632747)	-0.00540804 (0.0873241)	0.0778111** (0.02283202)
INCOME (INC)	0.0001938 (.0001279)	-0.0001150 (0.0001298)	-0.0000731 (0.0001041)
MICROFINANCE (MFI)	-0.0315388** (0.00970216)	-0.0396001** (0.01661092)	-0.0281612** (.00818072)
OBSERVATION	600	600	600
R-Squared	0.6050	0.6060	0.6103

Note: Standard errors are presented in parentheses. *, ** and *** denote significance at the 10%, 5% and 1% level, respectively.

Source: Field data, December, 2014

The Table 2 shows the financial intermediation role of the microfinance as a part of the financial market in the economy. The financial intermediation role takes into accounts the risk sharing, transaction cost and the asymmetric information. About 60.50% variation in the Risk sharing equation is explained by the independent variables such as age, gender, income, and microfinance participation. Also about 60.60% variation in the Transaction cost equation is explained by the independent variables such as age, gender, income, and microfinance participation. Again, about 61.03% of the variation in the Asymmetric information is explained by the independent variables such as age, gender, income, and microfinance participation.

In relation to the Risk sharing equation, the variables such as age of the respondents and the income level of the respondents show no significant or relevancy to the equation since their p-values were greater than 0.05. But the variables such as gender and microfinance participation have a significant negative impact on the Risk sharing equation since their p-value are less than 0.05 and are significant at 5% significance level.

The gender variable exhibited a negative significant impact on the risk sharing equation at 5% significance level. This implies that as females' participation increases in the financial markets as compared to the males where the risk sharing reduces or risk bearing assets reduces in the financial market. The reason is that females are by nature timid and tends to avoid any risky ventures.

The microfinance participation has a negative impact on the risk sharing equation which implies that the institution tends to reduce the risk bearing assets to safer assets for their participants as compared to those who do not partake in their product. The more and more MFIs participants, the greater the reduction in a riskier assets and the reverse is true.

In relation to the Transaction cost equation, almost all the variables had p-values greater than 0.05 which make them irrelevant to the equation except only the microfinance participation variable which has a p-value less than 0.05 which has a negative significant impact on the Transaction cost equation. The negative significant impact of MFIs participants on the transaction cost equation implies that as more and more people partake in the MFIs, it tends to minimize the transaction since the cost of transaction is spread on many customers and therefore minimized the individual bearing cost in participation as compared to those who do not partake in the MFIs products.

With regards to the Asymmetric information equation, age and the income level of the respondents were not relevant to

the equation since their p-values are greater than 0.05 at 5% significance level. But gender (GN) and MFP had a significant impact on the Asymmetric information since their p-values are less than 0.05.

The gender as a variable with females as the treatment group have a negative impact on the asymmetric information equation which implies that female participants in the MFIs tends to reduce the asymmetric information associated with the financial market. The reason is that females are by nature timid as compare to the males and are willing to provide all information needed from them for the viability of the MFIs operation.

The MFIs operation is also statistically significant to the Asymmetric information equation since it has a p-value less than 0.05. The MFIs exhibited a negative significant impact on the Asymmetric information and therefore implies that MFIs dominance has reduced the Asymmetric information associated with the financial market. That is as more and more MFIs are established; asymmetric information associated with the financial markets tends to reduce.

5.0 CONCLUSION AND RECOMMENDATIONS

The study is expected to serve as a springboard for many elites to research more on the financial market. Aside the several challenges facing the country, the study is beseeching all stakeholders to implement the stated policies. Above all, the study has adequately added to knowledge under the scope of microfinance and the financial markets. Conclusively, the study reveals that Microfinance institutions are performing the role of financial inclusion in the line of savings, susu and loans to the vulnerable and the poor households. But in discharging the role as intermediation has not been effective as compared to the inclusion role.

The following recommendations are therefore suggested:

- i. There should be strict monitoring and evaluation of the central bank over the financial activities of the MFIs on the market. This will help to avoid fraudulent activities of these money lending and deposit taking institution which can create inflationary problems in the economy, which has been outlined and argued by Milton Friedman, "that inflation is always and everywhere a monetary phenomenon".
- ii. The government, financial market regulators and policy makers in charge of poverty alleviation should invest more into the MFIs since it tends to target the poor and the lower

income earnings groups in the country. This will enable the poor to better their financial life.

- iii. The government and the central bank should enact laws and regulations to restrict the role of the MFIs in order to affirm the sustainability of the MFIs operation to help build the trust and confidence in them.

References

- Christabell, P.J & Vimal, R.A (2012). Financial inclusion in rural India: The role of microfinance as a tool. *Journal of Humanities and Social Science*, 2, 21-25. Accessed from www.iosrjournals.org.
- Microcredit Summit Campaign (2000). Empowering women with microcredit. *2000 Microcredit Summit Campaign Report*. Washington, DC. Accessed from www.microcreditsummit.org/pubs/reports/socr/2000/report00.html.
- Mishkin F. S., Mattews, K. & Giuliiodori, M. (2007). "Economics of money; Banking and financial markets". *Book*; P.38 European ed. p. cm. ISBN 978-0-273-73180-1 1
- Zeller, M. & Sharma, M. (1998). *Rural finance and poverty alleviation*. Washington, DC. USA: