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Assessing the Socio-Economic Graduation Pathways of Microfinance Clients: A Case Study of Buusaa Gonofaa Microfinance Institution

Project Work submitted to the Indira Ganghi National Open University in partial fulfillment of the requirements for the award of the Degree – Master of Arts (Economics). I hereby declare that this work has been done by me and has not been submitted elsewhere.

Signature of the Candidate:

Name of the Candidate: Getachew Mekonnin Zerfu

Address, if any: Email: gechomek@gmail.com,

            Tell: +251 (0) 911 05 93 61

Year: November   2013

CERTIFICATE

Certified that the Project Work entitled "**Assessing the Socio-Economic Graduation Pathways of Microfinance Clients: A Case Study of Buusaa Gonofaa Microfinance Institution**" submitted by Getachew Mekonnin is his own work and has been done under my supervision.

It is recommended that this project be placed before the examiner for evaluation.

(Signature of the supervisor)

Name: Dagnew Eshete (Ph.D)

Address: Addis Ababa, Ethiopia

Email: dagnew.eshete29@gmail.com

Study Center: St. Mary's University College

Regional Center: Ethiopia

Date: November 2013

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ABBREVIATIONS AND ACRONYMS

BG MFI   Buusaa Gonofaa Microfinance Institution

MFI   Microfinance Institution

AEMFI   Association of Ethiopian Microfinance Institution

FGD   Focus Group Discussion

KII   Key Informant Interview

SPSS   Statistical Package for Social Science

MIX   Microfinance Information Exchange

ABSTRACT

Following the success history of Grameen Bank in Bangladesh, the importance of microfinance institution as one of poverty reduction strategies has gained momentum in the policy agenda of several countries, including Ethiopia. While many researchers agree that microfinance can reduce poverty, there is still inconclusive evidence as to how microfinance helps the poor. Traditionally, microfinance impact assessment used to be based on a narrowly defined poverty line using income/expenditure indicator. However, the focus on increasing income overlooks the importance of microfinance services in diversifying sources of income, building and protecting important household assets; which are the dominant livelihood strategies of poor households. By drawing attention to the multiplicity of assets that people make use of when constructing their livelihood, this study attempts to explore the different pathways through which microfinance clients move out of poverty; using livelihood indicators of assets like, housing quality, household fixed and movable assets, income source diversification and business expansion (business turnover and profit level).

This study was conducted with the objective of investigating the impact of BG MFI services on the livelihood of client households using a combination of cross-section and time series data. The study has found out that BG MFI client households have improved their livelihood as indicated by the change in livelihood indicators of housing quality, ownership of important household assets (fixed and movable), and improved their business turnover and profits. The research finding also shows that, 'very poor' client households benefited more from microfinance program in building important household assets, than their 'not- so- poor' counterparts. Further, it was found out that there are varied socio-economic or poverty graduation pathways depending on whether households are very poor or not so poor. Livelihood improvement for very poor clients is more of asset, while the not so poor clients have improved their business volume (even if the marginal change is not significantly high). This indicates, BG MFI has a very strong value creation effect on the livelihood of very poor clients than that of not-so-poor clients. Not-so- poor clients have very limited benefits from the program.

Therefore, as a pointer to future endeavors, the current services of BG MFI needs to be tailored towards the livelihood strategies clients, depending on their poverty status. It also requires, further research to have a clear picture of how poor clients benefit from MFI services; and investigate the different poverty graduation pathways of client households

Key Words: Multi-dimensional Nature of Poverty, Assets, Livelihood Improvement, Poverty Graduation Pathways, BG MFI

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Microfinance industry is considered as one of the emerging institutions and tools for poverty reduction globally. However, much of the impact assessments of microfinance institutions in the past have been biased towards income measurement, ignoring the multifaceted dimension of poverty and its causes. The particular interest of this thesis is the impact of microfinance on non-income dimension of poverty.

The theoretical link between Finance and Economic Development as explained by many economists from classical, Keynesians and neo classical growth models have emphasized the centrality of capital in enhancing income and wealth. The basic tenets of Keynesians after the Great Depression of 1930s, underscored the importance of financial development in triggering economic development (Guush and Henk, 2006). Mahajan (2006) took this macroeconomic view on the role of financial capital to the microeconomic analysis of the behaviour of households. He explains how injection of financial capital breaks the vicious circle of poverty (at household level) by increasing the level of investment, productivity and income.

Provision of financial services is one of the important economic inputs in the effort to reduce poverty and empower economically marginalized segments of the society. These marginalized poor people have limited access to financial services from the formal financial institutions especially in developing countries. Because formal financial system has inadequate geographical outreach, lack of adequate management system, lack of skilled manpower, high risk perception and inadequate collateral, poor people found it difficult to obtain adequate amount of credit and

were charged high rates of interest by monopolistic money lenders. Another theoretical explanation given for this was the "*economics of information*" (Guush and Henk, 2006), where rural economy is characterized by what they call "*imperfect information*"- monitoring and contract enforcement problems and the resulting high transaction cost hindering the efficiency and sustainability of conventional banks to economically serve disadvantaged remote rural population.

Microfinance institutional programs gained a worldwide acceptance and popularity since 1980s in providing financial services to the poor. Recent developments in the design of microfinance schemes have come out with innovative features which resulted in reduced costs and risks of making loans to poor and isolated people and made financial services available to people who were previously excluded. Microfinance, especially when channelled to poor women, is seen as demonstrably lifting people out of poverty. Mohammad Yunus, founder of the Grameen Bank, cites the figure that "5 percent of the Grameen borrowers get out of poverty every year" (Roodman and Morduch, 2009).

Traditionally, microfinance's impact assessment used to be based on a narrowly defined poverty line using income/expenditure indicator. Many studies examine both practical and theoretical problems arising from trying to measure impact through changes in income (Graham A.N. Wright 1999). Further, the preoccupation with increasing income (and often even generating employment) as indicators of a microfinance programme's success is often driven by donors' expectations and fuelled by some of the excessive rhetoric and claims made by the more zealous publicists of microcredit. The focus on increasing income overlooks the importance of microfinance services' role in diversifying sources of income, smoothing income and expenditure fluctuations, protecting and developing important household assets both physical as well as human capital (Wood and Sharif, 1997). Strategies to address poverty in view of the

multifaceted and multidimensional definition of poverty focuses on protection strategies of microfinance service for: diversifying income source, protecting and building household assets and reducing vulnerability (Ibid).

A study conducted by Rao and Bavaia (2005) revealed that microfinance services have a positive impact on household income. According to this study, 80% of the respondents from Share Microfinance Limited (SML's) experienced increased in their income as a result of their participation in microfinance program. Furthermore, there are many evidences showing that, the impact of microfinance goes beyond income to livelihood and welfare indicators. Accordingly, microfinance services have resulted in increased production, improved yield and more food, improved asset ownership, less vulnerability to shocks, social and political empowerments, enterprise expansion, building up new business and improved management skill (Alex Borchgrevilk et al, 2005; Padama and Getachew; 2005 and Johnson and Rogaly, 1997).
In his comparative research, Asmelash (2003) identified that frequent borrowers have a better housing condition and increased asset ownership, improved ability to pay educational and medical expenses than non-participants.

Based on the success story of Grameen bank model which justifies small scale lending as a solution to the market failure in the credit market, microfinance program in Ethiopia has been attaining a considerable recognition as one of the tools to fight poverty and deprivation. Accordingly, Wolday (2001) specified the objectives of microfinance activities in Ethiopia as a policy instrument, enables the rural and urban poor to increase their outputs and productivity, induced technology adoption, improve input supply, increase income, reduce poverty and attain food security. Hence, microfinance is taken one of the main development strategies of poverty reduction in Ethiopia. Further, Alex and Lenis (2010) assessed the specific developmental objectives of MFIs in Ethiopia and found out that, reducing poverty and vulnerability by

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increasing agricultural productivity and incomes, diversifying off farm sources of income, and building household assets are the main objectives.

Ethiopia has a favorable macro policy environment and regulatory framework to promote sustainable microfinance development (Wolday, 2003). The government of Ethiopia supports microfinance institutions as one of the means of addressing the poorest segment of the society to reduce poverty. To this end, the government created a conducive environment for the development of microfinance institutions by issuing proclamation No. 40/1996(the microfinance law).

Following the issuance of the proclamation, the National Bank of Ethiopia, the licensing and supervising agency for Microfinance Institutions, issued implementation guide lines within which microfinance institutions are allowed to operate. It also issued a dead line within which different saving and credit programs operated by NGOs in the country are required to be either licensed as Microfinance Institutions or discontinue operating their credit programs. In accordance with this, some of them were transformed to licensed Microfinance Institutions and most of them were terminated.

The Microfinance Proclamation number 40/1996 has stipulated certain specific requirements for NGOs to be registered as microfinance institution (MFI), which include:

- MFIs must be established as Share Company as per the commercial code of Ethiopia;

- All of the owners of MFIs must be Ethiopian nationals (foreigners are prohibited);

- Minimum registered capital of birr 200,000 must be deposited in blocked account in order to process the application for license;

- A minimum of 5 shareholders are required to form an MFI; and

- The maximum share of a single shareholder must be limited to 20% of the capital.

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This sudden change in government policy resulted in substantial disruption in the micro credit operations of many NGOs like HUNDEE; a local NGO that implements various development projects including credit scheme. Microcredit scheme was one of HUNDEE's core programs since its establishment. The new regulation prohibited HUNDEE from directly engaging in micro credit and saving schemes unless they are register as Micro financing Institutions as per Proclamation number 40/1996 and licensed by the National Bank of Ethiopia.

It was triggered by this new policy direction that Buusaa was established with a separate legal mandate; and continued to undertake the credit scheme HUNDEE has started. Buusaa Gonofaa Micro finance (BG MFI) is licensed under Proclamation No 40/1996 and is supervised by the National Bank of Ethiopia. Being a non-bank financial institution, BG has a legal mandate to take deposits from its specific clients as well as the public at large.

BG MFI started its operations not simply as legally separate institution from HUNDEE, but also with fundamental re-orientation and change in some key areas. Business like approach and financial viability of the service was one of the key priority areas of BG MFI; and this involved a two-pronged approach; namely: charging sufficiently high interest rate on its costly micro-loans and efficiency.

The vision of BG MFI is "*to see the development of an inclusive, efficient and mature financial system that works for all people, rural and urban, the poor and the rich alike*". The mission of BG MFI is "to provide flexible and efficient micro- finance services on a *sustainable* basis to *improve the livelihood* of the resource poor in rural and peri-urban areas, particularly, women, small holder farmers and landless youth". In order to realize its mission, BG MFI designed poor-friendly micro-loans that meet the needs and capacities of its target market (BG MFI Operation Manual, 2006).

BG MFI has the following strategies to achieve its overall objectives and business goals:

- Competitive pricing - setting competitive interest rate on its lending and saving services to cover full costs and ensure reasonable return;

- Promote the exchange of skills and experiences, mutual problem solving and group-based initiatives among the target clients;

- Offering flexible and responsive products that are well suited to the needs and livelihood priorities of the target clients;

- Excellence in customer services - speedy service delivery for repeat borrowers;

- Mobilizing local savings and accessing commercial loans for on lending;

- Building strong institutional base that enables expansion and growth in safe and sustainable way;

- Introducing innovative products and services that are appropriate for deepening outreach into remote rural areas and reaching other under-served market segments;

- Improving efficiency, productivity, and profitability;

- Maintain high quality of loan portfolio;

- Develop and maintain competent human resources committed to quality service for the poor and profitability;

- Establish and maintain effective and efficient policies, management information systems and procedures;

- Implement market studies and client satisfaction surveys on regular basis to respond to client needs; and

- Implement social performance management (SPM) system that shows the profile of client at entry and measure progress over time on every loan cycles.

1.2 Statement of the Problem

There are widespread evidences showing access to credit by the poor reduces poverty globally. Contrary to this argument, there are numerous studies on the counter claims of whether microfinance can reduce poverty in terms of increased incomes (Wood and Sharif, 1997). Graham A.N Wright (1999) argues the importance of recognizing the existence of significance difference between "increasing income" and "reducing poverty". This debate has its root on the fiercely contested issue of the definition of poverty, how it might be measured and what constitutes the poor (Wood & Sharif, 1997).

The most widely used unit of poverty measurement is the head count ratio – numbers of households below poverty line. To capture the incidence, depth and severity of poverty, most development theoreticians use the threshold poverty line which is constructed based on income threshold required to afford the minimum basic requirement (Zeller, 2004; Sillers, 2000; and Wood and Shariff, 1997). As a result of this exclusive focus on income definition of poverty, most microfinance impact studies have focused largely on indicators related to income/consumption. According to Sebasted and Coehen (2000), while there are numerous reasons why income based poverty measure is preferred like objectivity and universality; it is narrowly defined to capture the multifaceted and dynamic nature of poverty.

Different empirical evidences show that improving financial access to the poor facilitates economic growth by easing liquidity constraints in production, (i.e., by providing capital to start up new production). Therefore, the introduction of microfinance services will have a significant effect in reducing poverty at macro and micro levels (Wolday, 2003).

The study attempts to explore the different pathways through which microfinance clients move out of poverty using indicators of welfare like improving net wealth, income source diversification, business expansion (business turnover and profit), housing quality, building household assets, access to land and other productive assets. Thus, it would fill the 'gap' of the narrowly focused income based Microfinance impact assessment methodology; and contribute to the body of knowledge for practitioners in the industry to understand how clients benefit from their program.

1.3 Significance of the Study

The study attempts to fill the information gap on the impact of microfinance by moving beyond the narrow definition of impact as income growth, towards assessment of the change in client's life within the broad framework of livelihood analysis. It, therefore, adds to the existing body of knowledge on the impact of microfinance. As a result government and donor organizations would understand how microfinance benefits poor people, and be able to extend their support in terms of designing appropriate policy and programs, and provide technical assistance to microfinance institution. Furthermore, the study would contribute towards a better understanding of the range of benefits derived from microfinance services. This understanding would be a valuable input for practitioners of MFI to design appropriate products and services which enhance the livelihood improvement strategies of clients.

1.4 Objective of the Study

The main objective of the study is to assess the economic graduation pathways of microfinance clients as demonstrated by the change in livelihood indicators from one loan cycle to another, by taking a case study of three branches of BG MFI, namely: Mojo, Holeta and Bushoftu branches. The study has the following specific objectives.

- To broadly examine the conceptual and practical aspects of microfinance services, and its contribution in poverty alleviation;

- To examine the socio-economic profile of clients served by BG MFI;

- To examine the loan use strategy of BG MFI clients;

- To assess the impact of microfinance services in improving asset ownership, business and income diversification, housing improvement, etc; and

- To examine whether or not microfinance interventions have different impacts on the lives of clients with different poverty status.

1.4.1 Research Questions

The following two basic questions could be addressed by the study:

i. How do financial services improve clients' livelihood in terms of diversifying asset portfolio, accumulating assets, diversifying household income source and expanding their business?

ii. Are there differences in the pathways out of poverty for clients found on different poverty category/status?

1.4.2 Hypothesis

The core hypotheses to be tested by the study are:

H_1: *Financial services improve the livelihood of poor people by providing a lump sum of money to:*

- *Accumulate assets (both fixed and movable assets) and Increase the diversification and development of household assets;*

- *Income source diversification;*

- *Increasing clients' business turnover; and*

- *Improved housing quality measure in terms of ownership status of house, roofing materials and number of rooms;*

- *Improved in the overall livelihood of the client household.*

H2: The Socio-Economic or poverty graduation pathways of microfinance clients are different depending on whether their poverty status is very poor or not so poor at intake.

1.4.3 Definition of Relevant Variables

Livelihood Indicators: The welfare improvement of households participating in MFI program is described by the net improvement in livelihood indicators ranging from ownership of assets like cattle (oxen, cows and sheep/goat), household furniture and appliances (bed type, TV and tape ownership), housing conditions (roofing material of a house and number of rooms) and land ownership.

Household Asset Index or Asset Score: The asset based livelihood indicators are combined to form a single index called household asset index and the net improvement (change) in these indicator over time reflects livelihood improvement of the clients. Household asset index is therefore one of the outcome variable for measuring the impact of credit on clients livelihood.

Household Business Index or Business Score: This is another outcome variable to measure the impact of credit on households business and income sources. It measures the combined change in household's working capital to run the business and the resulting change in profitability of the business. Thus, household business index is a combination of working capital and profit per month to form a single index called business index.

Average loan size: This is the explanatory variable for testing the hypothesis and answer research question. Even BG MFI has policy of fixed loan size for newly joining clients; subsequent loan increment is based on client's capacity and repayment history. The average loan size is obtained adding loan amounts obtained by a client over the three scoring cycles and is used as one of the explanatory variable in the regression analysis.

Marital status of a household Head: Marital status of a household head is another exogenous (explanatory) variable that determine the poverty status of microfinance clients as well as the pace at which they graduate from poverty. Thus, it is a dummy variable which takes 1, if the household head is female headed (divorced or widowed) and 0 otherwise.

Land ownership: Land ownership status of a household is continuous variable that determines the poverty status of a household. Since farmers have only user rights as stated by the constitution of Ethiopia, it is a fixed status indicator which cannot change from time to time. In this paper, the size of land cultivated by a household including the one rented is included as explanatory variable.

Household size: The number of household members supported by a family is used as explanatory variable irrespective of whether they are dependent or not. It is hypothesised that as the number of household member increase, the household become poorer and poorer and thus, negatively correlated with change in outcome variables.

Education of the household Head: Education of the household head is a dummy explanatory variable which takes 1, if the household head has no formation education and 0 otherwise. This is a variable which is hypothesised to be negatively correlated with household's poverty status and change in their livelihood.

Years of Business experience: It is one of the continuous explanatory variables assumed to have a positive influence on client's livelihood improvements over time in terms of change in business larger would variable.

Wealth Index Calculation and Poverty Classification[1]

Asset Index/Score =	*number of oxen + number of cows + number of sheep/goat+ Bed Type Dummy(1, if household had bed) + Tape Ownership Dummy (1 if household had Tape) + TV ownership Dummy(1 if household had TV) + roofing material dummy(1 if household had roofing type iron sheet) + number of rooms and size of land cultivated*
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Business Index/Score =	*The size of Working capital(in birr) + monthly business profit(in birr)*
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Wealth Score	Asset Index/Score + Business Index/Score

Combining business and asset Index, a household's relative wealth status and poverty classification is obtained. Accordingly, households are classified in to two broad classifications:

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[1] Adopted from a model used by Ethiopian Economic Association : Determinates of household Poverty, 2009

'very *poor'* and '*not so poor'*. '*Poor'* households are defined as those households who are found at the bottom 25% wealth index; while the '*not so poor'* are those who are located on the upper 75% of the wealth index.

1.5   Scope and Limitation of the Study

This study is limited to relevant literature reviewing and on sample individuals of households who are participating in Buusaa Gonofaa Microfinance Institution (BG MFI) in a case study area due to time and financial constraints. As a result, it may not have a very strong   scientific justification to generalize about the impact of MFIs intervention services as a whole. The other limitation of the study is that, the researcher is constrained by time and finance for undertaking and in-depth and extensive representative samples based coverage.

There are other logistic and technical challenges encountered during field data collection. These include, busy agricultural season where people have no time for interview, and inability to easily locate secondary Intake and Scorecard data (i.e., misplaced client socio economic data) for the sampled clients.

1.6   Organization of the Study

This research paper is organized into five chapters. The first chapter deals with background to the study, statement of the problem, objectives of the study, hypothesis and definition of variables, significance and limitations of the study. Chapter two describes the research methodologies applied in the study. The third chapter focuses on review of related literatures and assessment of relevant empirical case studies to the research. Chapter four presents the major findings and discussions of the study; and in chapter five, conclusions drawn from the study and policy implications are presented.

CHAPTER TWO

RESEARCH METHODOLOGY

2.1 Description of the Study Area

Buusaa Gonofaa Microfinance (BG MFI) was founded in 1999 as a profit making Share Company. It is licensed by the National Bank of Ethiopia as a non-bank financial institution with a deposit-taking mandate. Since 1999, BG has been offering solidarity group-based and individual loans and savings services to low-income households considered 'un-bankable' by conventional banks. BG MFI is, currently serving over 50,000 smallholder farmers, women and landless youth through a network of 28 branches in the district towns of Oromia region. BG MFI is a mission-driven company that seeks to improve the wellbeing of the low-income groups by providing flexible micro finance services to the un-bankable segment of the population, while generating reasonable return on its investment. BG's target customers are individuals from low-income households who are not in economic positions to access poor-friendly financial services. The majority of the targets are women micro-operators in both rural and urban areas, landless youth engaged in off-farm income generating activities and smallholder farmers with diversified livelihood (on-farm and non-farm) activities. The company has cultivated a strong lending history with this lower-end segment of women, landless youth and smallholder farmers. It plans to solidify its reputation within this market with its current products, and by opening new branches in remote rural areas of Oromia Regional State that are not yet served (BG MFI Operation Manual, 2006).

The Ethiopian microfinance market is large, underserved, and growing at a rate of more than 35% annually. More than 12 million rural households depend on smallholder farming; and

significant majority of them require financing for their farming activities (e.g., purchase of seed, fertilizer, etc.), with estimated market for outstanding loans of Birr 30 -50 billion. However, the current outreach of 30 MFIs is limited to less than 20%, with uneven geographic distribution of the market, where 50% outreach is just in two regions; while the five biggest government MFIs have over 85% of the customer shares in the country (AEMFI, 2011).

2.2 **Data Type and Source**

The study used both primary and secondary sources of data. The primary data sources are information collected from BG MFI clients and staff of the institution.

To clarify the secondary data source, BG MFI has developed a social performance monitoring system that allows it to measure the poverty status of clients and the growth of business and assets after every loan cycle. This is a time series panel data or panel data that is collected on every loan cycle. Thus, the system has been put in place to follow the socio-economic graduation performance of clients. BG social performance management and monitoring tool contains two type of client level information, one gathered only at entry (intake card) and the other at every loan cycle (scorecard). BG MFI scorecard is believed to provide detailed information on the poverty levels of its clients (depth of outreach) and changes in their livelihood overtime. It enables comparisons between client poverty score from one loan stage to another using some of the strongest poverty indicators collected for its clients. In other words, as part of poverty measurement, BG MFI frontline staff collects client socio- economic data for every newly joining clients and collects the same poverty information on every loan cycle (repeat clients. Thus, all clients have time series of socio-economic data collected over a period of their stay with BG.

2.3 Sampling Technique and Sample Size

BG MFI has 28 branches in different Administrative zones of Oromia Regional states. Eight of the 28 branches are located in a very remote area from Addis. These branches were intentionally excluded from the sampling frame on logistic grounds. Out of remaining 20 branches, three branches were selected based on random selection methods: Holeta, Mojo and Bushoftu branches.

The sampling technique for gathering primary data through client interview and FGD used a combination of both convenient sampling and random sampling technique. During sampling exercise, frontline staff explained the absence of client address and location map especially for rural clients. Since most of the clients come from very remote rural areas from the branch office (25-50 km), it is difficult to know their specific address. The come once a month to a collection place which is a middle ground (place) for their residence and BG office. Thus, only clients who have group meeting during field data collection was considered as a sampling frame. Accordingly, 40 group meetings were on the branch schedule during the field data collection. From these group meeting (a total of about 400 clients), a random selection is conducted to select 75 respondents, for individual interview and 20 for Focus Group Discussion.

2.4 Method of Data Collection

Primary data source is collected through structured and unstructured questionnaires, focus group discussions and Key Informant interview of the concerned parties. Qualitative data through Focus Group Discussion (FGD) and Key informant Interview (KII) with clients and key staffs of the organization is collected to substantiate the quantitative results so as to get more in-depth understanding of the change in clients' livelihood.

Secondary data for the sample clients were collected from the sample branches for analysis (i.e., Intake data for all sampled clients and all the subsequent scoring were collected from group file for analysis).

2.5 Method of Data Analysis

Based on the data source and type, and the specific objectives to be addressed by this thesis, a combination of Descriptive and Econometric data analysis methodologies are used.

2.5.1 Descriptive Analysis

Data analysis will be made through the application of SPSS software. Descriptive statistics and relevant statistical tests like, percentages, mean, t-statistic and Chi-*square(X^2)* test are used to test the study hypothesis.

2.5.2 Econometric Analysis

The analysis applies an asset dynamics model to distinguish the poverty status of households. Households are classified in to different poverty categories based on their asset ownership status. As the primary aim of this study is to estimate and compare the impact of microfinance (loan) on household's livelihood indicators and assess how impacts vary across households with different initial endowments of assets (poverty category), the following model is adopted from Raham et al (2009). Initially, the model was used by Pitt and Khandker (1998) commonly known as PK econometric model and latter modified by Raham et al (2009) in their analysis of the "*impact of micro credit on higher income borrowers in Bangladesh*".

In their modified model, Rahaman et al (2009) considered the impact of credit (C_{ij}) that depends on some household characteristics, village and area specific characteristics, and other variables. Thus,

$$C_{ij} = \alpha + \beta_c X_{ij} + \gamma_c V_{ij} + \pi Z_{ij} + \varepsilon_{ij}{}^C \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (1)$$

Where x_{ij} is a vector of exogenous household characteristics (e.g. demography, initial endowments, etc); V_{ij} is a vector of village or area specific characteristic like infrastructure and Z_{ij} is other characteristics. β_c, γ_c, π are unknown parameters or coefficients; and ε_{ij} is a random error.

Then, change in household outcome (change in livelihood) as measured by change in asset ownership (poverty score)[2] may be explained as:

$$Y_{ij} = \beta y X_{ij} + \gamma_y V_{ij} + \sigma C_{ij} + \varepsilon_{ij}{}^C \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots. (2)$$

Where Y_{ij} is household outcome measured by change in asset; β, γ, σ are unknown parameters and ε is the error term.

The model can also be converted in to time series of panel data analysis to show the change or improvement in client's livelihood as a result of continued use of credit overtime. Therefore, a general time series (panel data) regression model is written as:

$$Y_{ijt} = \beta y X_{ijt} + \gamma_y V_{ijt} + \sigma C_{ijt} + \varepsilon_{ijt}{}^C \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots. (3)$$

Yij is households' outcome explained by ownership of different household assets (both productive and unproductive) obtained by the summation of the value of all these critical household assets. Indicators of households assets is summed together to obtain a unique Index,(i.e., Asset Poverty Index); Yi; which is a linear combination of all important household assets, where weights are specified based on the value of each assets(Zeller 2004) such that,

$$Y^* = w_1 X_1 + w_2 X_2 + w_3 X_3 + \ldots + w_n X_n \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots. (4)$$

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[2] Rahaman et al used both asset and incomes

Where, w_i is a series of weights that mark each indicators relative contribution to the overall asset poverty Index; and x_i are household asset indicators. Once weights are determined using regression analysis, it is possible to use categorical questions (like yes/ no questions) or simple counting of assets (Ibid); and thus, avoid the impact of inflation on the value of assets. The model described above is an asset dynamic model to distinguish the poverty status of households; and assess the impact of credit in building these household assets (Saweda and Nelson, 2009).

Since asset indicators are good predictors of poverty according to Zeller (2004); based on their unique asset poverty Index (score), households are classified in to different poverty categories (i.e.; *very poor, poor, not so poor, non poor,* etc.) compared to the general population of the locality and also wider community. As a result, this approach of defining and measuring poverty is very useful and simpler for practitioners of Microfinance Institutions to target poverty, market study, impact assessment and product/service improvement.

CHAPTER THREE

REVIEW OF RELEVANT LITRATURE

3.1 Concepts of Poverty

3.1.1 Multidimensional Indices of Poverty

The approach in which poverty is measured reflects the fundamental assumptions as to its nature, causes, program implications and assessing program impacts. Over the last several years, new perspectives on the definitions, causes and manifestations of poverty has led development practitioners and researchers to expand traditional sets of indicators to reflect a broader understanding of the phenomenon (Ravalion, 1992; and Renata, 2005).

According to Ravalion (1992), the variation in concepts and definitions of poverty has broadened the nature of poverty from one-dimensional aspect to its multidimensional phenomenon which explains poverty by a complexity of issues. In this regard, poverty can be conceived as absolute or relative, as lack of income or failure to attain capabilities. It can be chronic or temporary, is sometimes closely associated with inequity, and is often correlated with vulnerabilities and social exclusion.

Sharif (1997) explained the traditional measure of poverty, and why it is still the dominant measure of poverty despite its limitations. According to him, poverty measurement has been traditionally dominated by *income approach* which uses expenditure or consumption data to measure it. This approach to poverty measurement assumes that individuals and households are poor if their income or consumption falls below certain threshold known as poverty line, usually

defined as a minimum, socially acceptable level of well being by a population group. The most widely utilized income poverty indicators are the headcount index, incidence and depth of poverty. Despite its "narrow" focus in defining and measuring poverty, *income approach* continues to be the most widely used means of measuring poverty, partly because of the relative abundance of data and partly because of its simplicity. Although income indicators still dominate discussions of poverty measurement, there are wealth of evidences that multidimensional models advocated by many economists and researchers are beginning to gain influence.

Amartiya Sen (1976) did develop a more comprehensive poverty measure by considering the multifaceted dimension of poverty called the basic needs concept. This approach defines poverty as the deprivation of requirements, mainly material for meeting basic human needs. It includes access to such necessities as food, shelter, schooling, health services, potable water and sanitation facilities, employment opportunities, etc. Using this concept of poverty, Amartiya Sen (2011) found out that, *"if poverty means more than just the 'weight of a wallet' (income poverty), the world's poor may be more numerous than previously believed."* He explained this fact using empirical evidence as follows.

"When poverty is defined as living on $1.25 or less a day, about 40 percent of both Ethiopians and Uzbekistanis are considered poor. But by multidimensional measures that capture living standards, almost 90 percent of Ethiopians live in poverty, while only a small percentage of Uzbekistanis do" (http://harvardmagazine.com/2011/01/who-is-poor).

To sum up, the recent literature on the concept and definition of poverty widely recognizes that poverty is not only having inadequate income or income bellows the "poverty line", but is more of the inability to sustain a specified level of improved livelihood measured in terms of non-income dimension or indicators. One can draw major conclusions, for the above definition and

concepts of poverty as a multifaceted phenomenon. It has an implication for effective poverty reduction strategies design; and the choices of impact evaluation indicators.

3.1.2 Poverty Dynamics and Vulnerability

Addison T. et al (2009 identified three major areas of conceptualizing poverty, why it occurs; so as to improve the effectiveness of poverty reduction policies. Firstly, poverty research needs to focus on *poverty dynamics* over the life course and across generations. Secondly, there is a need to move efforts to measure poverty dynamics beyond mere income and consumption to a more *multidimensional concepts and measures* of poverty. Finally, understanding of poverty and poverty reduction requires *cross disciplinary research*, using the strengths of different disciplines and methods, and of quantitative and qualitative approaches to poverty analysis.

Similar literature on poverty dynamics is by Jeffrey et al (2011); and Calvo and Dercon (2006). The literature recognizes poverty status as not fixed, but contains a time reference and is *explained* by dynamic path of well-being over time. In other words, it defines poverty as an *outcome* of a dynamic process and classifies poverty as either chronic or transitory. Accordingly, if a typical household is poor for the entire reference period, it is deemed chronically poor. Alternatively, if, during the period the household moves in and out of poverty, it is said to suffer from transitory poverty. Here comes the concept of vulnerability, a situation where households are being vulnerable to risky events that could move the household below the poverty line. Thus causing the household to decrease current period consumption or depletes productive assets in order to survive and cope with the stress events.

Wright et al., (1999) differentiated poverty and vulnerability by describing poverty as a static concept and vulnerability as a more dynamic and capture a changing process whereby *"people move in and out of poverty"*. Iffat sheriff (1997) described poor people as often subjected to

routine vulnerabilities that cause income erosions and consequently prevent their "graduation" out of poverty. According to him, the economic graduation process of the poor can, therefore, be thought of as the upward movement of the extreme and moderate poor along the poverty pyramid in to non-poor status; and the ability of the vulnerable non-poor to sustain their position.

Jeffrey et al (2011, p.121) summarizes the literature on poverty with the concept of poverty dynamics and vulnerability as follows:

> *"a) Vulnerability is the probability of experiencing a loss in the future relative to some benchmark of welfare;*
>
> *b) A household can be said to be vulnerable to future loss of welfare and this vulnerability is caused by uncertain events;*
>
> *c) The degree of vulnerability depends on the characteristics of the risk and the household's ability to respond to the risk;*
>
> *d) Vulnerability depends on the time horizon, in that a household may be vulnerable to risks over the next month, year, etc. and responses to risk take place over time; and*
>
> *e) The poor and near-poor tend to be vulnerable because of their limited access to basic assets and limited abilities to respond to risk."*

3.1.3 Asset Based Approach to Poverty Measure

The dimensions of poverty, and its relative distribution among different social classes, are significantly different when approached from an assets perspective, as opposed to an income perspective. Accordingly, those households with a low stock of resources or limited asset endowment to draw on during time of economic stress events and shocks are defined as asset poor. This '*asset poverty*' may leave them vulnerable to unexpected economic events and unable to withstand and recover from shocks. Many studies have found that the rate of asset poverty exceeds the poverty rate as calculated by the traditional measure, which is based on an income standard (Yunju et al., 2008).

The asset based approach to poverty analysis describes poverty as caused by inadequate access to tangible and intangible assets; and vulnerability being associated with the probability of falling below a benchmark level of current period of consumption and the loss or degradation of assets. Longer-term effects can be caused by transactions costs associated with the use of assets to manage risk. Risk management is achieved by allocating assets before and after a negative event. Accordingly, ex ante risk management may take the form of risk reduction (e.g., diversifying asset bases or migrating), or investments in risk mitigation (e.g., precautionary savings, purchasing insurance). Ex post risk management may involve risk coping activities (e.g., sales of assets, using underemployed labor) (Ibid).

According to Michael R. (2006), the main strength of the asset based literature is its focus on how household asset portfolios can be used to manage risk. Information on asset can provide a richer picture of who the poor and /or better off groups are. This approach gives an insight in to the dimensions along which the poor and non poor are different; and explain a dynamic setting of how the asset positions of the households evolve overtime, giving important insights in to the nature of the pathways from poverty. However, Michael R. (2006) indicated the limitation of

asset based approach by saying that, the *outcome* is often not analyzed in detail, and the *risks* faced by the households are themselves often implicit. While it is understood that assets are important, the effectiveness of specific assets in reducing vulnerability has not been established empirically.

Brabdolini A. et al (2009) made a further distinction as to how asset and income is used to define poverty. Accordingly to Brabdolini A. et al, 'asset poverty' captures the exposure to the risk that a minimally acceptable living standard cannot be maintained if income suddenly falls, whereas income poverty refers to the static condition where income alone is insufficient to maintain this standard. This indicates the asset based approach to poverty measure captures vulnerability than income based static concept of poverty.

To summarize the literature on asset based approach to poverty measurement, asset is viewed as a vehicle for socioeconomic development by many researchers; and therefore it has a special policy implication for asset building project interventions. According to these theoretical frameworks, assets promote the capacity of individuals to achieve their goals beyond satisfaction of consumption needs. Assets generate economic, social, and psychological effects for their owners that income alone cannot, in part because the former is a more stable and reliable form of financial resources than the latter. Assets, therefore, may enable their owners to make and implement a long-term plan for improving economic, social, and psychological stability. Financial assets and physical properties may encourage a) future orientation by connecting people with a viable and hopeful future; b) promote development of other types of assets including human capital; c) allow people to take risks when needed and not to make costly financial decisions out of short-term economic needs; and d) financial assets and physical properties may increase social influence and civic participation.

3.1.3.1   Microeconomics of Poverty Traps and Asset Dynamics

According to Osmani S. (2009), a person is said to be caught in a poverty trap when the endogenous dynamics of the economic system within which he/she operates does not offer any escape route out of poverty. In this perspective, the main focus is on the scarcity of initial wealth or endowments or assets, which under certain reasonable conditions can create a trap from which a poor person will find it hard to escape without help from outside like access to credit program.

Similar theoretical formulation was made by Barrett and Carter (2001). According to them, households that can steadily accumulate assets will grow their way out of poverty. Among very poor populations, this growth could take some time; but movement, nonetheless, proceeds steadily in the right direction. For these poor households, time would be a dependable ally in the fight against poverty and would oversee a domestic process of convergence as poor households climb out of poverty, and catch-up to their better-off neighbours.

Michael R. (2006) used the analogy of neoclassical macroeconomic growth theory of convergence (i.e., poor nations with similar intrinsic characteristics tend to converge to a living standard that is unique to their group or club and will catch up over time or converge with the incomes of the richer nations given) to explain how convergence occur at household level.
 While diminishing return to capital suggest higher returns among households with fewer assets which justify convergence, a positive relationship between wealth and marginal returns can exist at household level. Certain minimum threshold of asset ownership is required at which households optimally switch production system to higher technology level. He explained this taking an example of households' who possess a certain minimum threshold of assets. Accordingly, households who possess more assets adopt higher return crop varieties or agronomic practices; graduate from poultry or small ruminants and indigenous cattle to improved

dairy cattle and advanced animal husbandry practices. Thus, poverty trap explains that poor households who do not have the required minimum threshold of assets earn relatively low rates of return on their asset holding, because they allocate based on liquidity constraint and risk exposure, which further perpetuates their poverty because they have less to invest after meeting immediate needs than do richer households. According to Michael R. (2006), this positive relationship between wealth and returns to scale would not impede asset poor households to accumulate assets and catch up with wealthier households. A forward looking household would either borrow a sufficient fund so that it could leap forward to a high asset return level or made a substantial short term sacrifice (diminished consumption) and accumulate assets until with sufficient time it reaches the minimum catching up threshold. If poor households are able to do these, then they will eventually catch up and converge towards the asset and income levels of initially wealthier households. But, He concludes the argument by *saying:*

"In the face of exclusion from financial markets, a poor household's only option would be to move forward slowing with no catching up prospect, since many very poor households cannot afford to reduce consumption and build asset."

3.1.3.2 Defining Asset Poverty Threshold

Even though there is wider consensus as to the importance of asset as a measure of poverty, there is a diverse methodological tool to get aggregate asset based poverty levels. Brandolini A. et al (2009) lied down two approaches to get asset poverty line. First approach does account for (net) household wealth, but only through the (net) income flow it generates in the current year. In explaining this procedure, they assumed that that an individual receives income *Yt* from labor, pensions and other transfers (henceforth, labor income, for simplicity) in year *t*, and that at the beginning of the period he holds net worth *NWt-1*. The Total current income *CYt* is defined as the sum of labor income *Yt* and property income *rtNWt-1*, where *rt* is the (weighted) average rate of return on assets:

$$CY_t = Y_t + r_t \, NWt_{-1}$$

Poverty occurs whenever *CYt* falls short of a pre-fix threshold *Zt* which represents the minimum acceptable level of command over resources. The second approach assumes income and wealth are perfectly fungible and one unit of wealth can be straightforwardly substituted for one unit of income. This implies that the total available financial resources *FRt* are given by the sum of income and net worth:

$$FR_t = Y_t + 1 + r_t)NWt_{-1}$$

With this definition, an individual would be classified as poor if total financial resources *FRt* were less than *Zt*.

Another approach used by Michael R. et al (2006) to define asset poverty line is by aggregating different assets in to one dimensional index measure and setting threshold at a level of asset index that predicts a level of wellbeing equal to income poverty level. That is to mean that a household is poor if it holds assets worth less than income poverty line.

Zeller M. (2004) identified two methods for aggregating asset indicators to develop poverty/wealth index: The Principal component Analysis (PCA) method and is the Net worth Test. PCA is statistical technique to identify commonalities among different variables, and to aggregate these variables into various components. When used as an aggregation procedure for the computation of a poverty or wealth index, it identifies important indicators and calculates the weights. Relative poverty comparisons are then made between client and non-client households based on this index. Basically, the principal component technique slices information contained in the *set* of indicators into several components. Each component is constructed as a unique index based on the values of all the indicators. The main idea is to formulate a new variable X* that is the linear combination of the original indicators such that it accounts for the maximum of the total variance in the original indicators. That is, X* is computed as

$$X *= w1\ X1 + w2\ X\ 2 + w3\ X3$$

Where, the weights (the *w*s) are specified such that X* accounts for the maximum variances in X1, X2, and X3. This index has a zero mean and a standard deviation equal to one (Zeller M. 2004).

The Net Worth Test (applied by the Grameen Bank and by Grameen replicators in other countries) measures poverty by the value of the household's main assets, adjusted for debt. Net worth is thus the difference between value of assets owned and debt of household. Land and key production and consumption assets are enumerated, and are also valued in cooperation with the respondent. In cases where such assets can be assumed to consist primarily of easily observable physical assets, this method is likely to yield substantial savings in data collection costs. The drawback is that these assets (similar to housing) might correlate only weakly with poverty status. However, assets fluctuate less than expenditures (and much less than income), and therefore may correlate well with long-term wealth or poverty status.

A recent development in setting asset poverty line is developed by Mark Shriener (2006) especially for microfinance industry to assess the level of poverty outreach and impact assessment. He developed a simple poverty scorecard based on non income dimension of poverty indicators and classifies people in to different poverty strata (very poor, poor, not so poor, etc). It also that estimates the likelihood that a given client is poor based on non income indicators of poverty. The average of each household's poverty likelihood is an estimate of the overall share of households who are poor. The methodology involves the following steps:

- Measuring the absolute, expenditure-based poverty status of households in a national random sample

- Selecting non-expenditure indicators that were not only simple and inexpensive to collect but also correlated with absolute, expenditure-based poverty status

- Constructing a scorecard by assigning weights to the non-expenditure indicators to reflect their correlation with expenditure-based poverty status

- Adding up the weighted non-expenditure indicators to produce poverty scores for the surveyed households

- Defining poverty score threshold that correlates with expenditure based poverty line

3.2 The Emergence of Microfinance Institutions

3.2.1 Global Experience

From the 1950s governments and international aid donors delivered subsidized credit to small farmers in rural areas of many developing countries. It was assumed that, poor people found great difficulty in obtaining adequate volumes of credit from formal financial institutions, like banks. Banks consider poor people as "un-bankable" and lack credit worthiness. Furthermore poor people were exploited by monopolistic moneylenders. It was also triggered by these facts that development finance institutions, such as Agricultural Development Banks and many NGOs were established for the delivery of cheap (subsidized) credit to poor farmers (Kumar, 2005; Wolday, 2003).

However, these agricultural credit programs suffered from a number of naïve assumptions and operated under un-conducive policy/ regulatory framework. In addition, the market environment was not favourable. It was characterized by supply driven approach without carefully studying the demand for rural people, providing the service by government and NGOs along with other welfare activities (considered by the general public as "handouts") targeting the service to specific activity of the poor households (forgetting that household is a complex economic portfolio; and that loan is utilized for many different purposes or fungible); and finally, subsidized lending rates and soft credit where loan was accessible to kebele officials and involved **bribe and nepotism** resulting in lax repayment (AFD, Agricultural Finance revised, volume 1, 1998, p.57).

The result of all these policy and environmental rigidities were very disappointing. The credit delivery program was found to be very expensive, costly and loans were left uncollected. The

operation of the program was not efficient and the desired output of increasing agricultural production was turned out to be counterproductive (ibid).

A complete paradigm shift occurred by the late 1980s as many of the challenges of the agricultural credit program were recognized and beginning to be tackled. The changes encompass from the general macroeconomic policy framework to the micro level policy and procedural understanding. These include; emphasis on off-farm needs of the farm households and rural micro-entrepreneurs; mobilization of local saving; emphasis on operational self sufficiency and sustainability by charging market interest rate; widening a range of financial service; strict follow-up of loan repayment and credit discipline on the part of both the provider and the borrower (AFD, Agricultural Finance revised, volume 1, 1998, p.68 -70).

In Asia, an economist Professor Mohammed Yunus of Bangladesh started a pilot-lending scheme for landless people. This later became the Grameen Bank, which now serves more than 2.4 million clients (94% of the which are women). Grameen has become a model for many countries around the globe. Similarly, Bank Rakyat Indonesia, a state-owned formal financial rural bank, moved away from providing subsidized credit and took an institutional approach that operated on market principles. This approach included the development of a transparent set of incentives for its borrowers mainly small farmers and staff, rewarding of on-time loan repayment and relying on voluntary savings mobilization as a source of funds. In Africa pride, Kenya Rural Enterprise Program (K-Rep) started pilot projects using the Grameen solidarity group principles and since then, the micro finance industry in Africa has grown substantially (www.mixmarket.org, retrieved in March, 2013).

The microfinance revolution has gained considerable momentum around the world in the last twenty-five years. Several microfinance schemes have gone operational around the world, providing financial access to millions of poor people in both rural and urban areas. The survey conducted at the end of 2002 by Credit Summit Campaign (cited in Wolday, 2005) revealed that more than 100 million clients around the globe have benefited, of which about 41.6 million are the poorest social groups of all.

3.2.2 Historical Development of Microfinance Institutions in Ethiopia

In view of the development approach during the 1950s and 60s, efforts were made by the Imperial Ethiopian Government of Ethiopia through its successive development plans to support agriculture and small farmers through subsidized credit program. During Derg regime, the financial sector was reorganized in a manner it reflects the then declared ideology of Ethiopian Socialism [Hibrettesebawinet] and its economic thinking as stated in the Declaration on Economic Policy of Socialist Ethiopia. The financial sector was reduced to a mechanism for "channeling resources in accordance with the national plan and command economy and as subservient to the real sector. Credit policy was driven by ideology and gave absolute priority to the **socialized** sectors (public enterprises, state farms, and cooperatives), and very minimal or no attention was given to the private sector and small holder farmers. The private sector was marginalized from receiving credit and other similar financial facilities, forcing it to depend on self-financing and non-institutional credit. The share of credit outstanding during 1986 - 90 for the private sector and cooperatives averaged 4.7 and 1.1 percent, respectively. The rest was going to the government and public sector. More than 89 percent of AIDB agricultural loans went to **state farms** while the rest went to agricultural co-operatives, with the peasant sector **receiving negligible share.** But, with the change of the government to EPRDF, and shifting of

the command economy to more market oriented economy, peasant agriculture was considered as engine of growth. Improving productivity of peasant agriculture and small holder farmers was the core program of the EPRDF agricultural policy under a broader program called SDAPR (sustainable development and Poverty reduction program); and under ADLI strategy; which emphasizes the role of microfinance institutions (Getaneh, 2003, p. 50 -51).

The concept of micro-finance therefore emanates from the failure of the government owned credit program, and conventional banks to serve enterprising poor rural and urban women and men to create employment and income to improve their lives. This basically recognizes that the priority sectors for micro-finance services are those economically marginalized segments of the society. Procedures and requirements of conventional banks categorically exclude this section of the population from its services (Ibid).

In the context of poor developing country like Ethiopia, where a large proportion of the population lives in the rural areas, these poor are physically far away from the banking services. Practically, rural and urban poor find it difficult to access financial service of the conventional banks. Consequently, the productive men and women are neglected from **one of the main inputs for development promotion.** Thus, National Bank of Ethiopia (NBE) is empowered to license, supervise, and regulate the delivery of financial service to the rural and urban poor through microfinance institutions. Accordingly, Proclamation NO. 40/1996 is "A proclamation to provide for the licensing and supervision of microfinance institutions". It defines a Micro-financing business as an activity of extending credit, in cash or in kind, to peasant farmers or urban small entrepreneurs (Wolday, 2008).

There are about thirty microfinance institutions in Ethiopia with an outstanding loan portfolio of about $ 427.2 mil and active clients of 2.3 mil. The following provides list of list of MFIs with their outstanding loan portfolio and number of active clients.

Table 2.1: Outstanding loan portfolio and number of borrowers of Ethiopian MFIs

Name of MFI	Loan Portfolio (USD million)	Number of borrowers
ACSI	$ 130.4 mil	677,331
Oromia (OCSSCO)	$ 74.6 mil	502,540
DECSI	$ 109.4 mil	396,648
OMO	$ 39.7 mil	283,902
Addis (AdCSI)	$ 33.5 mil	156,148
Buusaa Gonofaa	**$ 4.6 mil**	**48,908**
Wisdom	$ 6.6 mil	47,685
Wasasa	$ 6.2 mil	42,817
SFPI	$ 3.0 mil	33,335
Eshet	$ 2.4 mil	24,116
[3]Others (20 MFIs)	$ 16.7 mil	141,285
Total	**$ 427.2 mil**	**2, 354,715**

Source: AEMFI Annual Report,   June 2010.

3.3 Review of Methodologies in Microfinance Impact Studies

Measuring the impact of microcredit programs is a challenging task, because establishing 'causality' between credit effects and changes in the outcome of interest is complicated by the well known problems of self-selection and program placement biases that are inherent in such programs (Pitt and Khandker, 1998). In this regard, the question would be "how participants would have performed in the absence of program credit or 'how non-participants would have performed had they participated in the program". There are various literatures on how microfinance impact studies have dealt with this problem. Impact assessment methodology that is common among MFI practitioners simply compares existing clients ('treatment group') with new entrants ('control group'). The problem with this method is the difficulty in attributing the

---

[3] Gasha, Sidama, AVFS, Meket, Meklit, Beneshangul Gumuz, SYMFI,Metemamen, Dire, Agar, Letta, Harbu, Ghion, Degaf, Harar, Lefayeda, Tesfa

mean difference between the two as impact without dealing with selection biases. In evaluating the Grameen Bank, for example, McKernan (2002, p.351) finds that "not controlling for selection bias can lead to overestimation of the effect of participation on profits by as much as 100 percent. In other cases, controlling for these biases reverses conclusions about impacts entirely." Another literature on microfinance impact study relies on cross sectional data. The advantage of this is the fact that it solves the problem of selection biases by employing instrumental variable and quasi-experimental techniques that exploit the nature and timing of program designs (Ibid). However, MacKeman identified three critical problems to this approach: "1) It is often coincidental and difficult to replicate; 2) it assumes that the initial conditions of control and experiment villages are identical; and 3) it is difficult to come up with strong and valid instrumental variables". According to Guush (2009, P. 160), recent literatures on impact methodologies focuses on pre-designed randomized experimental approach and the use of panel data to mitigate the biases present in cross-sectional studies. According to him, "experimental designs that randomize over observable and unobservable attributes of participants and non-participants would, in principle, provide unbiased estimates. Such designs are however time consuming and costly to undertake". The use of panel data assumes strict exhogeneity between selection variables and time varying unobservables that could affect the outcome of interest, fixed effect panel data methods can provide consistent estimates by differencing out time-invariant unobserved individual and village effects.

Ravallion (1998) indentified the usefulness of Panel data sets in separating "chronic" from "transitory poverty" and understanding factors affecting each. It provides evidence about movement in and out of poverty during the reference period and can be used to decompose total poverty into its chronic and transient components. Such measurement often takes the form of ex post assessment. The result from using this methodology shows who moved into and out of

poverty given the prevailing conditions during the survey period. According Ravallion (1998), the use of panel data gives a static picture of *historical* vulnerability, less useful in making out-of-sample projections, and provides *current* and *future* vulnerability. Similarly, Michael R. (2006) identified   further importance to the use of longitudinal or panel living standards surveys. He identified important insights by comparing the results from cross-sectional surveys and longitudinal data. Accordingly, he concluded that, "while both types of surveys can tell us that aggregate poverty rate has held constant (say at 35%) , panel surveys permit us to know whether it is the same 35% of the population that is persistently poor, or whether there is large movement into and out of poverty.

To sum up, the recent literature on MFI impact assessment methodologies tend to focus on the use of pre-designed randomized experimental approach, and panel data to avoid selection biases, capture transitory nature of poverty and future vulnerability.

3.4 Empirical Evidence on the Impact of Microfinance in Alleviating Poverty

Over the past decades, providers of microfinance have developed different models for delivering financial service to the poor with double *bottom-line* objectives of financial sustainability and poverty alleviation and outreach to remote rural areas. As Microfinance programs matured and demonstrated financial sustainability and high scale of operation, the debates among scholars and policy makes remain whether microfinance can reduce poverty (Monique Cohen, 2000).

The Impact of Microfinance has been extensively examined over the past 10 to 15 years, and the resulting literature is now very large. While many people agree that microfinance can make a difference in people's lives, there is still inconclusive evidence to answer the question of how and to what extent microfinance contributes to poverty reduction. According to Ruthford (1999),

this debate is because, the relationship between poverty and microfinance is not strait foreword; and this arises due to the complex nature of poverty, its causes and remedial measures.

Some researchers argue that, although micro-credit has claimed more and more of the aid budget, it may not always be the best way to help the poorest and the poor (Hulme, 2000). In this regard, Bateman (2003) explained the negative impact of microcredit in a situation of higher repayment rate, when it may be painful to the clients making them pay from other sources such as sales of their limited assets. According to him, credit increases indebtedness risks for poor people because it makes them remain trapped in the vicious circle of poverty. Empirical evidence on the negative impact of microfinance was presented by Johnson and Rogaly (1997). According to them, borrowers have been initially successful but in the long run face a downturn terms of ownership of assets and level of income. They identified 69% of dropouts form Grameen bank was the result of inability to pay their instalments due to loss in income generating activity. As a result, repayment of microcredit is being made from other sources.

Hulme and Mosley (1996) analyzed how the poor are less benefited from microfinance compared to better off families. The study findings indicate that, the better-off the borrower, the greater the increase in income from a micro-enterprise lean. Borrowers who already have assets and skills are able to make better use of credit services. The poorest are less able to take risks or use credit to increase their income. Some of the poorest borrowers interviewed become worse off as a result of micro-enterprise credit, which exposed these vulnerable people to high risks. Business failure was more likely to provoke a livelihood crisis than it was for borrowers with a more secure asset base. Specific crises included bankruptcy, forced seizure of assets and unofficial pledging of assets to other members of a borrowing group. There have been reports of suicide following peer-group pressure to repay failed loans.

However, there are also an overwhelming amount of evidence substantiating a beneficial effect of MFI on increase in income and reduction in vulnerability. This positive impact is observed in the life of millions of poor people in developing countries of Asia, Latin America and Africa (Jonathan M., 2002). According to the research conducted in Bangladesh by Khandker and Shahid (2001), "microfinance participants do better than non-participants in per capita income, per capita expenditure, and household net worth. It helps low income people improve household and enterprise management, increase productivity, smooth income flows and consumption cost, enlarge and diversify their micro business and increase their incomes". Studies conducted by Robinson M. (2001), in Indonesia, Bangladesh and Sri Lanka and India indicates that the incomes of client households' with access to credit is significantly higher than for comparable households without access to credit. In Indonesia, a 12.9 per cent annual average rise in income from borrowers was observed; while only 3 per cent rise was reported from non-borrowers (control group). In Bangladesh, a 29.3 per cent annual average rise in income was recorded from client household; and 22 percent annual average rise in income from no-borrowers. Studies in Sri-Lanka indicated a 15.6 percent rise in income from borrowers; and only 9 per cent rise from non-borrowers. Similarly, studies conducted in India shows that, 46 per cent annual average rise in income was reported among borrowers, and 24 per cent increase reported from non-borrowers. However, according to Robinson M. (2001), the effects were higher for those just below the poverty line; while income improvement was lowest among the very poor. On the contrary, the findings from a case study conducted by Zaman(2000) on BRAC, one of the largest providers of micro-credit to the poor in Bangladesh indicates a pessimistic view on the impact of credit on household income, while magnifying its impact on vulnerabilities. The study concludes, "micro-credit contributes to mitigating a number of factors that contribute to vulnerability, whereas the impact on income-poverty is a function of borrowing beyond a certain loan threshold and to a certain extent contingent on how poor the household is to start with." The provision of micro-

credit has been found to strengthen crisis coping mechanisms, diversify income-earning sources, smooth consumption, provide emergency assistance, build and diversify household assets and improve the status of women. Similarly, Cohen M. (1999) found out how access to MFI program credit helps as a protection risk management strategy, where many microfinance clients seek to conserve productive assets.

In Ethiopia, Alex B. et al (2005) conducted a study on the impact of credit on marginalized groups such as young households, rural landless households, and urban house-renting households by taking a case study of Dedebit Microfinance in Tigray regional state. According to this study Dedebit Microfinance program has a positive impact in client's assets ownership income, consumption, food security, vulnerability to shocks, and social and political empowerments. In addition, Padma and Getachew (2005) found out that 83 percent of Sidama Microfinance reported a positive impact of credit on their business, housing condition, asset ownership, etc.

In summary, there is a wider understanding that microfinance institutions are among the most successful poverty reduction strategies both at macro and household level. The Micro Banking Bulletin NO.17 (2006, p. 36) published by MIX market recognizes that, *"increasing access to financial services to low income market could contribute to reaching the first Millennium Development Goal, increase and diversifies household income, build assets and improve lives in a multidimensional way. Poor people choose to invest in a wide range of assets, better nutrition, better roof on their home, and expansion of their small business"*.

CHAPTER FOUR
PRESENTATION OF RESEARCH FINDINGS AND DISCUSION

4.1   Operational Performance of BG MFI

Buusaa Gonofaa is a non-bank financial institution. Its principal business is providing micro loans and accepting tiny and small deposits from customers typically viewed as un-bankable. BG makes small loans of birr 1,000 or 2,000 up to 5,000; it accepts deposits of birr 5 or 10, often in such frequent intervals as, weekly, two weekly and monthly. Such ranges of small and frequent transactions are not worthy for traditional banks, thus making the poor un-bankable.

All customers join a group of 15-20 self-selected borrowers and co-guarantee the loan of fellow group members. The group members often know each other previously in *Iqubs*, thus creating a circle of trust for the lender, and no need for property collateral or credit records. Loans start at birr 1,000 and progressively increases up to birr 7,000 with loan terms of 4 to 12 (sometimes 18) months. Interest rate is from 15% to 24% a year, plus fees. The interest varies depending on loan repayment conditions, customers' economic activity and other risk factors.

BG has grown steadily over the last five years (2007 – 2011); have been expanding its operation in terms of different operation indicators like outstanding loan portfolio, number of active clients and other ratio indicators. The following table summarizes the operational trend of the institution from the 2007 to 2011.

Table 4.1: Key Operational performance trends of BG MFI (2007 – 2011)

Operation Indicators	2007	2008	2009	2010	2011
No. Active clients	31,422	38,921	38,097	38,014	49,813
Outstanding loan portfolio (_Euro[4]_)	1.5 mil	2.3 mil	2.7 mil	3.0 mil	3.1mil
Female (%)	74%	78%	75%	79%	74%
Ave loan bal/client	€ 47	€ 59	€ 70	€79	€63
No of loans per LO	430	469	385	362	463
Operational Self-sufficiency (OSS)	129%	144%	146%	147%	160%
ROA (adjusted)	5.1%	12%	7.6%	7.9%	9.0%

Source: BG MFI annual progress report (2012); and own computation

Table 4.1 shows that, outstanding loan portfolio has shown double increment from 1.5 million EURO in the year 2007 to 3.1m EURO in 2011. Similarly, the number of active clients has increased from 31,422 in the year 2007 to about 50,000 in the year 2011. BG MFI has managed to maintain the proportion of female clients above 70% as an indication of good mission achievement in terms of women outreach, indicated in its mission statement. Another performance indicator is the Operational Self Sufficiency (OSS) and Return on Assets (ROA); which has been steadily improving over the five years under consideration; indicating the success of microfinance institution; in achieving the double bottom-line objectives of sustainability and outreach to poor and remote rural clients.

Overall, BGMFI has been performing well on key operation and financial performance indicators over the past five years (2007 – 2011). It has shown good performance both in terms of outreach to target market including female outreach and financial sustainability.

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[4] 1EURO = 24 birr

4.2   Profile of Sample Clients

4.2.1 Demographic Characteristics of Sample Clients

The demographic characteristics of the sample clients like gender composition, marital status, and educational can be seen from table 4.2 bellow. Accordingly, more than two thirds of the respondents are female and out of the total 75 respondents 80% are from rural areas. This reveals that, gender and geographic distribution of sample respondents resemble the overall distribution of BG MFI client portfolio. Table 4.2 also reveals that more than 20% of the sample respondents are female headed household (13.24% are widowed, and 8.14% are divorced). An interesting observation from the marital status and geographic distribution of clients is that, most female headed households are from urban areas. Regarding the education status of the respondents, it can be observed from the table that about 44% have no formal education.

Table 4.2: Demographic characteristics of the sample clients

A. Profile of client	urban		Rural		Total	
Gender						
male	2	14.20%	20	34%	23	30.04%
female	13	85.80%	40	66%	52	69.96%
Total	15	100%	60	100%	75	100%
Marital status						
married	10	63.80%	46	76.67%	56	74.09%
Widow	3	19.80%	7	11.60%	10	13.24%
Divorced	1	9.50%	5	7.80%	6	8.14%
Single	1	6.80%	2	4%	3	4.56%
Level of education						
None/sign only	6	37.20%	31	51.70%	37	44.30%
Can read & write	2	11.20%	8	12.60%	9	12.30%
Primary(1-6)	4	25.70%	15	24.40%	18	23.90%
Secondary(7-12)	4	25.70%	6	9.90%	10	18.75
Others	0	0.21%	1	1.30%	1	0.80%
Total	15	100%	60	100%	75	100%

4.2.2 Loan History of Sample Clients

Table 4.3 shows that, on average, respondents took three and half number of loans while staying about 28 months with BG MFI. The average loan size disbursed to these respondents is 1250 and 896 birr respectively for urban and rural clients. One can also observe how clients utilized their loan from table 4.3 bellow. Table 4.3 also reveals the loan utilization of these respondents. Accordingly, 30% of the respondents utilized the major proportion of their loan for the purchase of agricultural input (30%), working capital for enterprise activities (30%), and purchase of household assets like cattle, household furniture, house construction and improvement (35%). and a significant proportion of the respondents spent their loan for the purchase of assets. It is very interesting to observe from table 4.3 that, the proportion of clients who utilized the major proportion of their loan for the purchase of household assets is similar across rural and urban areas.

According to the discussion with BG staff, the institution has no restriction as to how clients should invest their loan and clients are free to invest their money (loan) on their priority need. There is no policy restriction as to how clients should utilize their loan.

Table 4.3: Loan history of the clients

	urban	Rural	Total
Mean no. of loans taken	4	3	3.5
Mean last loan size	1250	896	1073
Mean no. of months with BG	29	27	28
Last loan utilization • Agricultural input • Enterprise/ business Working capital • Purchase of assets • Consumption	5% 50% 40% 5%	55% 10% 30% 5%	30% 30% 35% 5%

4.3   Main Economic Activity of Sample Clients

From table 4.4 bellow, the major income sources of the households in both rural and urban areas are divided in to three major categories: Agriculture/ farming, Micro enterprise activity, and Employment on regular and casual works. Accordingly, agriculture/farming is the major income source for about 40% of the sample respondents (87% for rural, and 13% for urban). Micro-enterprise activities are the major income source for sample respondents (54.2%), and it is the major income source for the greater proportion of urban clients (77%). Other income source is employment (daily labourers, pension, salary, etc.) which is the major income source for about 6% of the sample respondents.

It is very interesting to observe from table 4. 4 bellow that, about 25% of rural clients households also engage in enterprise activities; which are home based income generating activities, like food and local drink processing, grain trade, trading of animal products like butter, milk, eggs, etc. This indicates how BG MFI is contributing towards women's economic empowerment, to start their own economic activity. The following table depicts the main economic activities of the sample clients in both urban and rural areas.

Table 4.4: Main Economic activity of the respondents (n=75)

Main Income Source	Urban	Rural	Total
Agriculture/farming	13.10%	**87.50%**	39.60%
Micro-enterprise activity	**77.00%**	25.00%	54.20%
Employment (wage, pension, salary)	10.00%	1.60%	6.10%

4.4   Impact of Credit on Livelihood Indicators of Client household

The livelihood impact of microfinance is that, it provides better chance for client households to involve in farm, non-farm and micro and small enterprises activities. As the result of this, households could increase and diversify their income source, build and diversify assets, improve their housing condition including household furniture, utensils and ultimately enhance livelihood.   Thus, this sub-section of the paper discusses the impact of microfinance at household level with respect to the livelihood indicators, like housing conditions, household assets, and business activities of the client household.

4.4.1 Impact on Housing Condition

Evidences from the data analysis reveal that BG MFI's services has related in the improvement of client household's housing condition. The data analysis show that client households improve their housing condition in a number of ways, vis-à-vis purchase and construction of own house, improving its roofing material (from grass to iron sheet), and adding rooms to the existing house. The following table illustrates the improvement in housing condition of the client household, after participation in the credit program.

Table 4. 5: Change in housing condition of sample respondents

Housing Improvement Indicators	After loan		Before Loan		X^2
	No	%	No	%	
Urban house ownership(n=15)					
• Own house	11	71.50%	10	64.50%	a
Roofing material(n=60)					
• Iron sheet	18.9	31.50 %	12	20.00%	a
No of Room(n=75)					
• one room	20	26.50%	23	31.00%	a
• 2-3 rooms	40	53.00%	41	54.00%	-
• more than 3	15	20.50%	11	15.00%	b

a b Significant at 1% and 5% respectively, - Not significant

a) House ownership

Table 4.5 above shows that, house ownership status has tremendously improved for the majority of urban clients, since they joined the institution. Accordingly, about 10% of the respondents have purchased or constructed their own house after being clients of BG MFI credit program.

b) Roofing material of the dwelling house

Roofing material is a housing quality indicator applicable in rural setting. It can be clearly observed from table 4.5 that, only 20% of the rural households have roofing material of their house constructed from iron sheet entering the microfinance program. The figure has increased to 31% after program participation; indicating 10% of the sample client households have managed to change the roofing material of their dwelling house from grass to iron sheet after being participants of the microfinance program.

c) Additional rooms

The data analysis also shows that, client households have improved their housing condition by adding additional rooms to their house. It can be observed from table 4.5 that, 5% of the sample clients have improved the quality of their house by adding room to the existing house. The number of sample clients who used to live in only one room has tremendously reduced by 5% (from 31% to 26%) after taking loan.

4.4.2 Impact on Ownership of Household's Fixed Assets

The ownership status of the sample clients with respect to change in ownership of household furniture and appliances like table, chair, bed, Tape and TV were analyzed, after and before program participation. The data analysis show that, out of the many type of furniture reported by respondents, only bed type revealed a relatively strong livelihood indicator for change in client households' wellbeing. This is observed from table 4.6 bellow, significant proportion of sample clients (5%) have improved their bed condition after taking loan. Furthermore, household appliance or electronic devises like TV and Tape ownership are found to be the other two critical livelihood indicators for indicating household welfare improvement. Significant proportion of clients (10%) has improved their ownership of both Tape and TV after taking loan.

Table 4. 6: Change in household's Fixed Asset Ownership

	After Loan		Before Loan		X^2
Furniture Type(=yes)	No	%	No	%	
table	39	52.00%	37	49.00%	-
chair	8	10.50%	6	7.50%	-
Bed*	10	13.00%	6	8.00%	a
sofa	2	3.00%	1	1.00%	-
bench	3	3.50%	3	3.50%	-
Electronics(=Yes)					
Tape*	45	51.00%	30	41.00%	a
TV *	10	14%	3	4%	a

a Significant at 1%, and - insignificant

4.4.3 Impact on Ownership of Household's Movable Assets

Another component of livelihood indicators assessed by this research is the impact of credit on the ownership of movable household assets like number of oxen, cows, sheep and goats. These are both productive as well as reproductive assets that indicate household's livelihood improvement. Ownership of these assets improves the livelihood of client household by

vulnerability to stress events and shocks, and generating additional income for the household. Table 4.7 bellow indicates the average number of oxen ownership has improved from 1 to 1.5 oxen; while, that of cows increased from 1 to 2 after program participation. Similarly, the average number of sheep/goat has increased from 2 to 4 after taking loan. All of these indicators showed a statistically significant improvement as tested by *Chi square* statistic.

Table 4. 7: Change in Asset Ownership of sample respondents before & after loan

Cattle ownership - mean number of cattle ownership	After Loan	Before Loan	X^2
	Mean	Mean	
Oxen	1.5	1	a
Cows	2	1	a
Goat/sheep	4	2	a

a, significant at 1% level

4.4.4 Impact on Business Expansion

Another dimension of impact created by credit is the change in the status of business of the client households. When asked, if there is any business improvement after taking loan, a fairly significant proportion of respondents (80%) responded positively. Out of those who improved their business, about 86% of them have observed improvement in the sales volume of their business; and 80% reported improved in the size of working capital. Profit level of the business and business fixed assets are another aspect of business which shows improvement. Accordingly, about 75% of the respondents reported increase in profit, and 60% have improved their business in terms of adding fixed assets required to run the business (see table 4. 8).

Table 4.8: Change in business of the respondents before and after loan

Is there any business improvement after taking loan?	Yes	80%
	No	20%
What aspect of the business is improved?	Business Sales volume	86%
	Business working capital	80%
	Profit level	75%
	Business fixed assets	60%

4.5   Overall Livelihood Improvement of Client Household

The test results from the analysis of the time series data shows improvements in the overall wealth status or livelihood of client household overtime.   T-test is used to evaluate the differences in means of wealth index of a client household between two periods in time (at entry and third cycle).

In this regard, the null hypothesis used to test the above status states that, the mean of poverty score (asset score and business score) at the first and at the third loan are equal; and the alternative hypothesis is that the mean values of these poverty indicators are not the same. Accordingly, the results form data analysis indicate that there is a statistically significant difference between the means of asset score, business score and wealth score at the third scoring and at the first scoring; at 95% level of confidence. Thus, the null hypothesis is rejected ($P<0.05$). In other words, at the third scoring, BG clients have a statistically significantly improvement in their living status as measured by asset and business score; indicating the overall livelihood improvement.

A time series data of client household indicate a significant difference (at 95% confidence level or Sig. <0.01) in the mean asset score, business score and wealth score of client households registered at different points in time (from intake (t_0) to 3rd scoring (t_3). Table 4.9 bellow shows an improvement in clients livelihood as explained by the net improvement in client household's asset score (an increase from 36 to 48; 32% change), business score (an increase from 9 to 15; 74% change) and wealth score (a change from 45 to 63; 40% improvement) over the four scoring cycle[5].

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[5] one scoring cycle is 10 months on average

Table 4.9: Overall Livelihood improvement overtime

		Mean	Std. Deviation	Std. Error Mean	Sig. (2-tailed)
Pair 1	Assetscore@t=0	36.4846	36.93137	3.23910	.000
	Assestscore@t=3	48.3096	35.64258	3.12606	
Pair 2	businessscore@t=0	8.5286	17.18051	1.50683	.000
	Businessscore@t=3	14.8637	22.94226	2.01217	
Pair 3	Wealthscoret@t=0	45.0132	41.82559	3.66835	.000
	Wealthscoret@t=3	63.1733	40.49274	3.55145	

4.6   Impact on Different Poverty Group

One of the objectives of this research is to find out whether the impact of microfinance service is different across clients households with different poverty level. In other words, the data analysis is used to assess the different poverty graduation path ways of microfinance clients. Accordingly, the research finding indicate that, microfinance has different impact on client households found at different poverty group (*very poor* and *not so poor*), which explains the different graduation pathways of microfinance clients depending on their poverty status at intake.

Table 4.10 bellow shows, *Very poor* clients have shown significant improvement in terms of asset score (increase in mean asset score form 4.5 at entry (t=0) to 34.7 on third scoring (t=3). This indicates about 650% increase in asset score over three loan cycles. Similarly, business score of the very poor has also increased from 2.5 to 10.6 over three scoring cycle (i.e., 325% improvement). The resulting overall livelihood (wealth) improvement is tremendous for the very poor category of client households. Wealth score has increased from 7 to 45 over three loan cycles, which is about 537% improvement in the overall wealth or livelihood.

On the other hand, *not-so-poor* clients have shown negative change in their asset ownership as shown by decline in asset score from 78.3 at entry to 73.5 on third scoring. They experienced a limited improvement in terms of business score (i.e., change from18 at entry to 22.5 on third

scoring). Thus, the net change in wealth score is zero, indicating no change in the overall livelihood improvement of the not so poor households (see table 4.10).

Further, the test statistic on table 4.10 shows, the only statistically significant change is the asset score of the very poor client category. This indicates, clients who are very poor when they joined the institution have improved their asset condition more significantly than that of the not so poor client households' category. .

Table 4.10: Graduation pathways of client households with different poverty status

Poverty Category	Poverty Indicators		Mean	% change	Std. Error Mean	Sig. (2-tailed)
Very Poor	Pair 1	Assetscore@t=0	4.6154	652	1.00157	.000
		Assestscore@t=3	34.7260		3.76535	
	Pair 2	businessscore@t=0	2.5077	325	.68473	.004
		Businessscore@t=3	10.6467		2.53640	
	Pair 3	Wealthscore@t=0	7.1231	537	1.32587	.000
		Wealthscore@t=3	45.3727		4.11517	
Not so Poor	Pair 1	Assetscore@t=0	78.3784	-6	6.06216	.427
		Assestscore@t=3	73.5338		7.39351	
	Pair 2	businessscore@t=0	18.0681	25	4.47507	.151
		Businessscore@t=3	22.5603		4.72671	
	Pair 3	Wealthscore@t=0	96.4465	0	5.84207	.963
		Wealthscore@t=3	96.0941		7.65376	

The results from the econometric analysis (OLS) show that, average growth in asset score is significantly and positively correlated with average loan size. This implies that asset ownership status of a client household is affected by the amount of credit (i.e., as credit increase the asset of the client household also increase). As can be seen from the table 4.11 bellow, as loan size increase by 1 birr, client household's asset score increase by 0.8 units. In addition, the size of the land cultivated by the client household has a very significant positive effect on the asset growth of the household. Variables such a household size, education Dummy (if household has no formal education) and marital status dummy (if household has female headed household) has negative impact on households asset change over time.

Distinguishing between poverty statuses, the estimation results shows that, the impact of credit is different on households with different initial endowment (i.e., different asset and business score). It is very interesting to see that, credit has greater value for households who are very poor at entry (t=0). The estimation result shows one unit increase in loan size will increase asset score by 1.8 units for the very poor category. On the contrary, the coefficient is only 0.55 for households found at not so poor status. Thus, one can conclude that, credit has greater impact on very poor household's asset growth, than that of not-so-poor client households (see table 4.11).

Table 4.11: OLS estimates for the impact of credit on asset score by poverty category

Dependent variable	Change in asset score		
	Without distinguishing between poverty	Poverty status is "*Very poor*" at t=0	Poverty status is "*Not so poor*" at t=0
(Constant)	10.978*	-19.696*	3.353
	(1.971)	(-2.685)	(.837)
loansizegrowth11	0.861***	1.848***	.552***
	(6.159)	(9.465)	(3.868)
landsize11	3.497**	.130**	3.733***
	(3.259)	(-1.341)	(3.791)
hhsize11	-0.056	-.142	-.021
	(-0.628)	(-1.341)	(-.177)
education=NONE	-0.052	-.068	-.083
	(-0.481	(-.521)	(-.597)
Marital status=FHH	-0.121	-.155	-.129
	(-1.361)	(-1.534)	(-1.074)
R Square	.653	.865	.558
Adjusted R Square	.635	.855	.537
number of obs	75	75	75

Figure in parenthesis are t statistics
*Significant at 10%, ** significant at 5%, *** significant at 1%

Another outcome variable is the change in the size of the households business score. This outcome variable is positively and significantly affected by the volume of credit accessed by the household. Table 4.12 bellow shows an increase in credit by 1 birr causes the business score to increase by .9 units. In addition, the number of paid workers on the household business and the owner's years of experience on the business have significant positive impact on households business. Household size, Education dummy (if household has no education) and marital status dummy (if household head is female headed) variables have negative impact on the business growth of the household. Contrary to the impact of credit on household asset, credit impact on households business is more for not so poor clients than that of the very poor clients. One birr increase in loan, increase the business score by .033 units for the very poor clients; while it is .939 units for the not so poor clients. This shows, credit has greater value in expanding the business of the not so poor clients than that of very poor client.

Table 4.12: OLS estimates for impact of credit on business score by poverty category

Dependent variable	Change in business score		
Explanatory Variable	Without distinguishing between poverty	Poverty status is "*poor*" at t=0	Poverty status is "*Not so poor*" at t=0
(Constant)	-18.592	-37.417	-11.581
	(-4.818)	(-3.034)	(-3.681)
loansize	.982***	.033***	.939***
	(7.521)	(6.197)	(9.624)
hhsize	-.005	-.052	-.048
	(-.075)	(-.326)	(-.737)
edcationststus =NONE	-.082	-.099	-.152
	(-.999)	(-.536)	(-1.989)
MAritalsatus=FHH	.044	.083	-.003
	(.639)	(.545)	(-.049)
businessexperiecne	.032	.299	.085
	(.380)	(1.203)	(1.093)
R Square	.778	.733	.851
Adjusted R Square	.770	.714	.844
number of observation	75	75	75

Figure in parenthesis are t statistics
*Significant at 10%, ** significant at 5%, *** significant at 1%*

The difference in the magnitude of impact on different poverty category of client, cannot be attributed to the difference in loan size, because the average loan size approved for both client category (very poor and not so poor), is not significantly different. There mean loan size approved for very poor is 1176 birr, and that of not so poor is 1486 birr; and the difference is insignificant (P=0.1).

To summarize the discussion of the findings presented in this chapter, the following paragraph shortly describes the major findings from the data analysis.

BG MFI services have resulted in the improvement of the livelihood of client households as reflected by the change in indicators of housing condition and household assets, after program participation. Accordingly, the following points summarize the specific aspects of change in client's livelihood after being participants of BG MFI program.

- Many respondents showed improvements in their housing condition as measured by roofing type, number of rooms and house ownership. Accordingly, significant proportion of the sample clients have changed the roofing material of their dwelling house from grass to iron sheet, constructed or purchased their own house, and added additional room to the existing house after being participants of the BG MFI credit program.

- Ownership of household fixed assets like bed type, TV, Radio; and movable assets like number of oxen, cows, sheep/goat have shown significant improvement after being participants of the microfinance program.

- Improvement in business is emerged as another dimension of livelihood improvement as indicated by the change in business volume (production level) and profit margin of the client's business.

BG MFI services have different impact on the livelihood of its client households depending on their poverty status. Accordingly, the livelihood of *very poor* clients improved significantly; while the impact on the *not so poor* is not significantly high. *Very poor* clients have significantly improved their asset score. On the contrary, *not so poor* clients have regressed in terms of their asset score; and have shown some improvements in their business volume (positive change in business score).

The estimation result shows a significant and positive coefficient indicating; as the amount of loan increase, asset score increase for the very poor client household. Similarly, as loan size increase, the business score of the *not so poor increase* more than that of the very poor clients.

Overall, the study finding shows BG MFI services has resulted in positive impact on the asset status of client household's; and it is more effective for *very poor* client household as compared to the *not so poor* client households.

CHAPTER FIVE
CONCLUSION AND POLICY IMPLICATIONS

5.1 Conclusions

This study has the objective of assessing the socio-economic gradation pathways of microfinance clients using a combination of cross-section and time series data. The paper recognizes a multi-dimensional nature of poverty, and uses multidimensional indicators to assess the impact of Microfinance services on the livelihood of clients; as opposed to the narrowly defined poverty indicators.

The findings from the data analysis proved the research hypothesis; i.e., *"financial services improve the livelihood of poor people, and the poverty graduation pathways of microfinance clients are different depending on whether their poverty status is very poor or not so poor at intake."*

Livelihood improvement is reflected in on a number of livelihood indicators like housing condition, ownership of household asset (fixed and movable assets), expansion of business and other aspects of welfare indicators. The researcher concludes, non-income dimension of poverty is very important to assess how microfinance clients bring impact on the livelihood of its client household.

Unlike many empirical studies such as Hulme and Mosley (1996); Robinson M. (2001) which claims microfinance benefits only the better off (using income as impact indicator), this research finding suggests that *very poor* client households benefited more from microfinance program in building important household assets, than the *not- so- poor client households.*

Thus, one can conclude that microfinance services are very critical for reducing the vulnerability of households; and this is very important for *very poor* than *not so poor* client households. This supports the empirical evidence by Zaman (2000) conducted on BRAC clients in Bangladesh, which concludes micro-credit contributes more to mitigating vulnerability, while its impact on income poverty is conditional.

The pathways out of poverty are different depending on whether clients are *very-poor* or *not-so-poor*. In the first case, *very poor* people showed greater marginal improvement in their asset ownership and business volume relative to *not so poor* clients. There is no improvement in asset ownership of not so poor clients over the three scoring cycle; while some improvement is shown on their business volume. This indicates, BG MFI has a very strong value creation effect on the livelihood of *very poor* clients than *not-so-poor* clients. *Not-so- poor* clients have very limited benefits from the program (i.e., some improvements in their business volume shown, while negative changes are observed in asset ownership). This finding contradicts many of the empirical research findings on the impact of microfinance services which concludes *"Microfinance benefits only the not-so -poor clients; and not the very poor client category"*.

Thus**,** the impact of microfinance service is more reflected on multidimensional livelihood indicators of client households; and not just only on income or consumption indicators. In addition, there are many and varied livelihood improvement pathways or poverty graduation pathways of client households, through which microfinance impact is observed.

5.2 Policy Implications

Based on the findings of the research, the following are policy suggestions provided to the BG MFI's Management team, Microfinance Policy makers, practitioners and researchers in the area of microfinance sector.

The poverty graduation patterns and pathways of BG MFI clients provide a strong product design implication. The high level of livelihood improvement of the very poor clients may indicate the appropriate loan product design which considers the livelihood strategies of the very poor clients. Thus, if the current loan product is supplemented by tailored saving products, it can further enhance the livelihood improvement and encourage poverty graduation strategies of very poor clients. However, BG MFI management team needs to design a strategy and provide services that are tailored to the business needs of the *not-so-poor* client segment. To mention a few, loan product tailored to the livelihood strategies and business volume of the not so poor client is required. A microenterprise loan supported by business development service would enhance the livelihood improvement of the *not-so-poor* segment. To do this, BG MFI should efficiently utilize the huge it collects form clients on every loan cycle; and should be capacitated by technical expertise on how to synthesize the information for management decision making, product and service design and other marketing strategy designating.

In order to assess the impact of MFI on clients' livelihood, researchers should recognize the multidimensional nature of poverty by moving away from the narrowly focused income dimension. In order to do this, researchers should not underestimate how poor people define poverty in their own perceptions; how they utilize their loan; and the different poverty graduation paths followed by Microfinance clients to improve their livelihoods.

The other policy implications is that, a good research project in the future should further investigate to obtain a clear picture of how microfinance service improve the livelihood of clients; and find out the various pathways followed by client households to move out of poverty.

MFI institutions should regularly collect and monitor the socio-economic progress of their clients through accumulating time series data; see how they can improve service provision; and give a tangible justification for what they claim to be their mission – livelihood improvement of clients.

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ANNEXES

Annex 1

INDIRA GANDHI NATIONAL OPEN UNIVERSITY
SCHOOL OF SOCIAL SCIENCES
FACULTY OF ECONOMICS

*Data Collection on the project "*Assessing the Socio-Economic Graduation Pathways of Microfinance Clients: A Case Study of Buusaa Gonofaa Microfinance Institution"

My name is Getachew Mekonnin from INDIRA *GANDHI NATIONAL OPEN UNIVERSITY.* I am working a research entitled Assessing the Socio-Economic Graduation Pathways of Microfinance Clients: A Case Study of Buusaa Gonofaa Microfinance Institution. I am interviewing people here in order to find out about the Impact of microfinance Institutions on the livelihood of its beneficiaries.

The purpose of the study is to generate information necessary for the planning of appropriate interventions and its outputs will be used to fill the information gap and inform decision makers, planners, researchers and practitioners about the impact of microfinance intervention on increasing the welfare of the individual, household, enterprises as well as the community. Therefore your honest and genuine participation by responding to the questions is highly appreciated.

Your answers are completely confidential. Your name will not be written on this form, and will never be used in connection with any of the information you tell me. This survey will take 30 minutes to ask the questions. Would you be willing to participate?

Thank you for your cooperation.

Annex 2: Semi Structured Client Interview Questionnaire

A. Basic Interviewee Information

A1. First names: _____ Last (surname): _____

A2. Branch:_____ A3. Name or Code of usual loan officer: _____

A4. Sex: 1) Male ☐   2) Female ☐

A5. Birth date: _____ A6. Current Age: _____

A7. Place of birth: _____

 A8. Location of the respondent: 1) Urban ☐   2) Rural ☐

A9. Years of schooling: _____

A10. Education status:

☐ 1) None ☐   2) Primary (1-5th grade) ☐   3) Junior (6-8th ☐   4) Secondary (9-10/12)

☐ 5) Diploma (TVET) ☐   6) University degree or above

A11. Marital status: ☐ 1) Married ☐   2) Separated/divorced ☐   3) widowed ☐   4) Single

A12. Number of children (under age 18) at entry: _____

B. Loans

B1. Number of lending group: _____ Group name: _____Group Code ☐

B2. Loan cycle of the client: _____birr

B3. Beginning date of client in program: _____ (dd/mm/yy)

B4. Total number of months that client has been in program: _____

B5. Amount of first loan: _____ B6. Amount of last loan: _____

C. Savings

C1. Amount of savings at end of last period: _____

D. Loan Use

D1. Did you invest the last loans you took from BG MFI in income Generating activities?

☐ 1) Yes   ☐ 2) No

D2. What was the activity you are engaged after taking the loan?

☐ 1) Commercial (trade)

☐ 2) Manufacturing (food processing, production, handcrfts etc_)

☐ 3) Service (hairdressing, restaurants, food stalls, cleaning services, local drinks)

☐ 4) Agriculture (food production, animal raising)

☐ 5)   Others (please specify)_____

D3. Do you use any portion of your for the following purpose?

☐ 1) What purpose did you use? Buy food for the household

☐ 2) Buy clothes for the household 2

☐ 3) Give or loan the money to others 3

☐ 4) Keep money on hand for emergency

☐ 5)   Others specify----------------

E. Source of Income and Level of Income of the Household

E1. Did you have a source of income for your household before the loan?

☐ 1) Yes   ☐ 2) No

E2. If yes, specify the average monthly income in birr---------------------------------

E4. What is your average monthly income after you have taken the loan?--------------birr

E5. How did the overall income changed since you joined the organization?

☐ 1) Decreased greatly

☐ 2) Decreased

☐ 3) Stayed the same

☐ 4) Increased

☐ 5) Increased greatly

E6. If decreased, what are the main reasons?

_____

_____

_____

E7. If increased, what are the main reasons?

_____

_____

_____

E8. After you take loan form BG MFI what changes happened to your enterprise activities?

_____

_____

_____

F. Household Asset and Wealth Condition

F1. Did you have a house before you join the credit program?

☐ 1) Yes   ☐ 2) No

F2. If No, did you have a house after join the program?

☐ 1) Yes   ☐ 2) No

F3. If you have a house before loan what was the roofing condition of the house?

☐ 1) Grass

☐ 2) Iron sheet

☐ 3) Plastic/ bamboo

☐ 4) Others(specify)---

F4. What is the roofing condition of your house after loan?

☐ 1) Grass

☐ 2) Iron sheet

☐ 3) Plastic/ bamboo

☐ 4) Others(specify)---

F5. During the program period, is there any improvements or additions made to your home that costs more than birr 100?　　　☐Yes　　　☐No

F6. If yes, what type if improvement? _____

Do you have the following assets? Indicate by tick mark (√) or indicate number

S/N		Acquired		
	Asset type	Before Loan	After Loan	Remarks
F7	Chair /table			
F8	Refrigerator			
F9	Shelf			
F10	Bed			
F11	Sofa			
F12	Radio/tape player			
F13	TV			
F14	# of oxen			
F15	# of cows			
F16	# of sheep/goats			
F17	# of donkey			
F18	# of horse			
F19	Others (specify)			

G. Food Security

G1. Do you think that the nutritional status of your family improved because of the loan you received?

☐ 1) Yes ☐ 2) No

G2. During the last twelve months was there ever a time when it was necessary for your household to eat less because of either lack of food or lack of money to buy food?

☐ 1) Yes ☐ 2) No

G3. If yes, how long did this period last? In months? _____

G4. How the household solve the problem (shortage)

_____

_____

H. **Children's Schooling**

H1. Do you have children and other school aged household members?

☐ 1) Yes ☐ 2) No

H2. If yes, how many of them have attended to school?

☐ 1) Before the loan_____

☐ 2) After the loan_____

H3. If the number of children attending school increased/decreased, what is the main reason?

_____

_____

_____

H4. How is your access to health facility and capacity to afford medical cost changed since your joined BG MFI?

_____

_____

_____

I. Business Expansion

I1. What was the major type of activity you engaged before the loan?

_____

_____

I2. How does this change after loan?

_____

_____

I3. Do you think your business activities improved after the loan?

☐ 1) Yes ☐ 2) No

I4. Do you think your business activity increases job opportunity?

☐ 1) Yes ☐ 2) No

Annex 3: Discussion Guides for Client FGD

- What did you do with your loan money? Why did you use the loan money in these ways?

- What changes took place as a result of spending your loan money in these ways? What specific aspects of your lives have improved?

- Are there clients who have experienced deterioration and which have remained in the same condition? Why does this occur? For which category of clients?

- Are there differences in livelihood improvement of BG clients depending on household characteristics like poverty level, initial asset ownership, age, marital status, etc.?

- How do you observe the difference in the livelihood improvement of different category of clients over the previous year?

- For those households whose situation has improved or deteriorated, *how* has their situation changed?

- For those households whose situation has improved or deteriorated, *why* has their situation changed?

- Have you experienced a crisis during this loan cycle? If yes, did you use your loan to help cope with the crisis? How?

- How did you describe asset Acquisition of your household over time (at initial loan, intermediate loan and higher loans)? Which type of assets have you built at initial and higher stage of your loans?

Annex 4: Checklist for Key Informant Interview for BG MFI Officials

- How was the history and background of BG MFI?

- What are the main services provided by BG MFI ?

- What is the mission of BG MFI in terms of defining: a) who your target clients are? b) How their needs will be met? C) intended impacts?

- How do you define and categorize the poverty level of your clients?

- Do you have a regular process for collecting information related to the achievement of your social performance objectives?

- How do you know that it's consistently collected? How do you assess the reliability of information collected? Are your indicators easily understood? How do you validate the information you collect to ensure that it is correct?

- What methods are used in sampling?

- Did you analyze the data?

- To what extent does BG MFI serving the poor? What is the poverty level of your clients?

- What impacts are BG MFI program having on household/individual lives?

- Do you compare performance of clients with different characteristics, such as those with different business types, poverty level, or social group (segmentation)?

- Are graduations out of poverty occurring for your clients?

- Are there differences in livelihood improvement of your clients depending on household characteristics like poverty level, asset ownership, age, marital status, etc.?

ANNEX 5: BG MFI Intake and Poverty Scorecard Formats

	Questions	Coding Category	Intake	Subsequent Scoring-		
	Date of Scoring		DD/MM/YY	DD/MM/YY	DD/MM/YY	DD/MM/YY
CLIENT IDENTIFIERS						
1	Client Id#	_____	☐			
2	Client name:	_____	☐			
3	Father's name:	_____	☐			
4	Branch:	_____	☐			
5	Group Name:	_____	☐	☐	☐	☐
	Group Code:	_____	☐	☐	☐	☐
	Loan #:	_____	☐	☐	☐	☐
6	Address	Zone _____ Woreda_____ Kebele_____				
STATUS VARIABLES						
7	Location:	1) Rural 2) Urban	☐	☐	☐	☐
8	Sex	1) Male 2) Female	☐ ☐			
9	Age:	_____Years	☐	☐	☐	☐
10	Marital Status:	1) Single 2) Married 3) Divorced 4) Widowed	☐	☐	☐	☐
11	Yrs Lived in the area:	_____years	☐			
12	Edu Years:	_____years	☐			
13	Edu Level	1) None 2) Elementary (1 - 4) 3) Junior (5-8)	☐			

#	Item					
		4) Secondary (9or 12th) 5) Higher education (>12)				
14	Total # HH members	_____	☐	☐	☐	☐
15	# Fulltime working on family business	_____	☐	☐	☐	☐
16	# Employed/earning salary	_____	☐	☐	☐	☐
LOAN DATA						
17	Loan Cycle	_____	☐	☐	☐	☐
18	Loan Amount	_____birr	☐	☐	☐	☐
19	Purpose of Loan	1) Agricultural activity(inputs) 2) Working capital for trade 3) Working capital for production 4) Working capital for services 5) Others(Specify)		☐	☐	☐
SAVINGS INFORMATION						
20	Mandatory savings	_____birr	☐	☐	☐	☐
21	Voluntary savings	_____birr	☐	☐	☐	☐
BUSINESS INFORMATION						
22	Type of Business	1) Agriculture 2) Trade/Commerce 3) Manufacturing/production 4) Service 5) Others	☐	☐	☐	☐
23	Monthly business Sales	_____birr	☐	☐	☐	☐
24	Monthly business Profit	_____birr	☐	☐	☐	☐
25	#of employees	_____	☐	☐	☐	☐
26	Business Working Capital	_____birr	☐	☐	☐	☐
WEALTH RANKING DATA						
27	Hs Ownership	1) Owned 2) rented 3) others	☐	☐	☐	☐
28	Roofing Type	1) Grass 2) Iron sheet 3) Plastic	☐	☐	☐	☐
29	#of Rooms	_____	☐	☐	☐	☐
30	House	_____birr	☐	☐	☐	☐

	Improvement costs					
31	Number of Oxen?	_____	☐	☐	☐	☐
32	Number of Horses?	_____	☐	☐	☐	☐
33	Number of Cows?	_____	☐	☐	☐	☐
34	Number of Donkeys?	_____	☐	☐	☐	☐
35	Sheep/Goat Score	_____	☐	☐	☐	☐
36	Bed Type	1) Metal bed 2) Wooden bed(Mosvold) 3) No bed	☐	☐	☐	☐
37	Does HH own a radio?	1) Yes 2) No	☐	☐	☐	☐
38	Does HH own a TV?	1) Yes 2) No	☐	☐	☐	☐
39	What other household items do you have?	_____	☐	☐	☐	☐
LAND OWNERSHIP						
40	Land Owned	---------------------Hectares	☐	☐	☐	☐
41	Cultivated land	_____Hectares	☐	☐	☐	☐
CHILDREN EDUCATION						
42	# of School Aged	_____	☐	☐	☐	☐
43	# Attending	_____	☐	☐	☐	☐