

**IMPACT OF GROUP LENDING ON THE LIVING
CONDITIONS OF WOMEN IN ADDIS ABABA: A CASE
STUDY OF WOMEN UNDER THREE MICRO CREDIT
AGENCIES.**

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**A Thesis Submitted to the Schools of Graduate Studies of Addis Ababa
University in Partial Fulfillment of the Requirements for the Degree of
Master of Science in Economic Policy Analysis.**

**July, 2005
Addis Ababa**



**ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES**

**Impact of Group Lending on the Living Conditions
of Women in Addis Ababa: A Case Study of Women
Under Three Micro Credit Agencies**

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ACKNOWLEDGMENTS

I do realize that this thesis would not have been completed with out the cooperation of different individuals.

My special thanks go to Dr. Abdulhamid Bedri for his invaluable advice and constructive comments at each stage of the study. Above all, I would like to thank W/ro Mekia Mohammed, the former head of Addis Ababa Women's Affair Office for allowing me to join this program. Furthermore, I would like to thank W/ro Zuriashwork Alemseged, department head of Addis Ababa Women's Affair Office for her encouragement and provision of materials for the study, and W/ro Hukemu Nuru, executive secretary, for her secretarial assistance. I also would like to thank Ato Derege Bezabeh, senior expert in Addis Ababa Civil and Social Affair bureau for editing this paper.

I would like to thank Ato Meried from head office of ADCSI, Ato Desu, Ato Netsanet and Ato Ashebir branch managers in 'Addis Ketema', 'Ledeta' and 'Gullele' sub cities of ADCSI respectively, Ato Muluken from Gasha and Ato Derge from AVFS for facilitating the primary data collection and in providing secondary data.

A special debt of gratitude is owed to my mother W/ro Mekides Kassahun, my friend Tewodros Mekonnen and my sisters and brothers.

Finally, I would like to thank all the staff of AAU Economic Department for their cooperation through the study and AERC for its provision of financial support to carry out the study.

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ABSTRACT

In Ethiopia about half of the population is living under poverty. Due to the existence of many discriminating practices such as gender-based division of labor, lack of access and control over resources women comprise a majority of those living in absolute poverty. This expression is emanated from the fact that women's subordinate position in the country measured in terms of all main indicators such as access and achievement in education, health condition, economic equity, legal status and women empowerment.

Micro credit program is currently being promoted as a key strategy for simultaneously addressing both poverty alleviation and women's empowerment. Accordingly, this study focuses first whether the scheme actually does improve women's living conditions measured in terms of increase in income, saving, consumption expenditure and diet, educational attainment, asset formation, housing or repair and women empowerment based on 140 sample women beneficiaries under ADCSI, Gasha and AVFS.

The results of the study indicate that the credit scheme has brought positive impact on improvement of living conditions measured by the positive change in all variables except on the variables such as access to education and health care.

However, for micro finance activity to be sustainable it must have better repayment performance and accordingly the study focuses secondly on the repayment determinants of the beneficiaries.

The determinant of loan repayment performance as estimated by the binomial probit model indicates that age, educational level, total expenditure, group size, group relation, group formation, loan rationing, suitability of loan repayment period and loan amount are related negatively while number of dependent, frequency of loan, total business income, total off-business income, asset holding and loan supervision are related positively with loan repayment performance. Hence, these repayment enhancing factors and variables that affect repayment performance negatively should be considered by MFIs in designing a more effective loan repayment mechanisms.

CHAPTER ONE

1. Introduction

In Ethiopia approximately 27 million people are living in poverty. Due to the existence of many discriminatory practices such as gender-based division of labor, lack of access and control over resources, women comprise a majority of those living in absolute poverty.

A typical woman has triple role - Productive, Reproductive and Community.

Productive roles of women are those activities, which are done for economic gain i.e. active involvement in agriculture in the rural areas or in informal, or formal sector enterprise in urban areas and it is for pay.

Reproductive role which is also referred to as maintenance activities such as cooking, fetching water, child bearing, child rearing etc, but it does not involve payment.

Community role is community management work such as weeding, funerals, village meeting etc... and is unpaid.

For these, women tend to work longer hours and shoulder heavy responsibilities than men do. They work from 13-17 hours a day. Apart from the burden of feeding the family, women take care of babies, children and elderly. Despite all these contributions, they are often seen and considered as weak and invisible in development. Their role in the overall development endeavors of the country is either misunderstood or totally underestimated. They are minority in decision-making process and have no voice even in the condition that concerns their households [Jelaludin A et al, 2001: 6].

According to Women Affairs Office study of 1995 although it varies from region to region, of the 60 percent of Ethiopian population that suffers from the effect of harmful traditional practices, 50 percent are women. Girls particularly in rural areas are victim of early marriage, often kidnapped for marriage. All these as well as numerous other traditional practices result in numerous death and retard women development in all spheres of life [WAO, 1995: 4].

The position of women in the country, relative to men is lower in all of the main indicators such as level of literacy, years of schooling, nutritional status and level of income. They are concentrated at the bottom of the ladder in terms of employment, education, income and so on. They are assumed a role that is subordinate to their male counterpart. They engage in delinquent activities or jobs, which do not require special skills or capital to start.

The situation of women in Addis Ababa though is relatively better than those living in the rural part, it doesn't escape from the general subordinate conditions.

There are different dimensions to gender inequality. The major categories of measurement are

- Access and achievement in education
- Improvement in health/ health condition
- Indexes of legal and economic equality of women in the society
- Measures of women's empowerment (Personal, social and economic)

Education implies literacy, knowledge and exposure to new ideas. It also provides access to better employment opportunities. In Addis Ababa girls and boys have not achieved equal opportunities particularly at higher educational level. According to CSA census report of 1994, 17.5 percent of people in Addis Ababa have never attended school. Among the population aged 10 years and above 1,411,894 (82.5) percent are literate. Desegregating this shows 40.1 percent of female and 42.7 percent of male are estimated to be literate. But attendance of female schooling decrease as the level increases. Of the total 706,566 people of age five and above 24.4 percent, 9.3 percent and 12.6 percent of females are enrolled in elementary, junior secondary and senior secondary school respectively but only 1.2 percent of female got a chance to continue above grade 12. Comparing these figures with their male counterpart relatively better enrollment rate is registered for male, particularly for students of above grade 12. Of the total 706,566 people of age five and above 22.3 percent, 8.1 percent and 11.2 percent of males are enrolled in elementary, junior secondary and senior secondary school respectively, and 2.9 percent of male got a chance to continue above grade 12 [CSA, 1995: 84]. The recent study made in 2003 shows improvement in enrollment rate of female in primary and secondary school. According to this study, enrollment rate of female in primary and secondary school (grade 9-10) are 54.5% and 51.62% respectively. But the disparity in enrollment rate is still there in the preparatory program. In the year of 2003, 74,885 students enrolled in preparatory program and of these female accounts only 27.39% [WAO/OPM, 2005: 52-53].

Schooling for girls is constrained by different factors and beliefs. To mention some of the constraints

- Parents especially mothers' want their daughters to stay home and help them in house chore. Due to gender base division of labor, for them female labor is more valuable to household than male labor.

- In some areas schools are far from the residential place. This tempts parents to send their daughters to school. Besides conditions in school may not be suitable to female students. Toilets for example in schools are mostly constructed behind the seen and this can expose female students to different types of sexual abuse.
- Abduction and early marriage - although not a threat particularly in urban part, it is still problem in the rural part of Addis Ababa.
- Parents dislike their daughter to attend class with boys'
- Since female expected to marry and leave, society in general gives low value to female schooling [Women's manifesto, 2005: 25-27].

Concerning their health condition, according to United Nation estimate of 2000, life expectancy at birth is 42 for female and male in the period 1995-2000, even though different sources report (World Bank 2000, United Nation Statistical Division) a small difference [Jelaludin et al, 2001: 13]. However, currently maternal mortality rate in Ethiopia is 871/100000 and is the highest in the world [Women's manifesto, 2005: 337].

Today unemployment is one of the acute problems of the country and resulted mainly due to the inability of large and medium manufacturing industries to absorb the labor force in the country. Due to the fact that women lack access to education and training relative to men, they are highly affected by unemployment problem. According to the census data of CSA 1994, total unemployment rate of Addis Ababa is 34.73. Among economically active female age ten and above, female unemployment accounts 41.09 percent while among male it accounts 30.31 percent [CSA, 1995:117]. This fact is also supported by the federal civil service commission report of 2000. In this report, of all civil servants in the country women account only 30.7 percent. Moreover, of 3163 people employed by the commission in indicated year, women account only 849 which is 26.8 percent of all [Women's manifesto, 2005: 337].

Women problem in the area of employment is not limited to the unavailability of employment opportunity, but they also suffer from handling delinquent activities or jobs, which do not require special skill or capital to start.

According to census data of CSA 1994, women employed in professional areas are very few. Among 641,146 economically active population of Addis Ababa 3,028 (0.4) percent are legislators, senior officials and managers, 5,066 (0.7) percent are professionals, 17,748 (2.7) percent are technician and associate professional and 27,614 (4.3) percent are clerks. Comparing

this figures with their male counterpart 14,380 (2.2) percent are legislators, senior officials and managers 17,989 (2.8) percent are professionals 35,148 (5.4) percent are technician and associate professional and 22,287 (3.4) percent are clerks [CSA, 1995: 126].

Unable to get job opportunity in formal sector, informal sector plays significant role in absorbing labor force in the country specially women's. The 1996 CSA survey result indicates that 730,969 persons are employed under informal sector in urban Ethiopia and women account for about 65 percent of the urban informal sector. For Addis Ababa, informal sector constitutes 57 percent of economically active population [Tilahun B, 1996: 304].

Concerning legal right, till recently the civil code stood in favor of male. It discriminated against wife by allowing the husband unilaterally to be the head of household. According to this code, the wife owes her husband obedience in all lawful things, which he orders although it required that both spouse to owe each other respect, support, and assistance (article 635 and 636). It also stated that unless the husband is in the position to provide his wife with servant, she is bound to attend household duties (article 646). Besides, it gave the husband the right on the property in that, the husband is deemed to be the administrator of the household resource (article 646 in conjunction with article 626). Although the husband is expected to act judiciously and can not alienate property except under certain condition, the law presumed that he has superior hand in managing the financial resources or the household [Negarit Gazeta, 1960:16].

Today although amendment is made in most articles to ensure equality, practices still handle it otherwise. For example, the husband may not alienate common property without his wife consent, but in other legal regime the property belongs to the person in whose name it is registered in most cases the husband. He may sell it, give it to his friends or waste it: the wife has no rights on her husband's personal holdings. Salaries also presumed to be commonly used by both but it is under the control of the wage earner, typically the husband, that is the wife has no control over her husband's income [WAO and World Bank, 1998: 12].

All these constraints that women have faced adversely affect their empowerment. In the broader sense, empowerment means the expansion of assets and capabilities of poor people to participate on, negotiate with, influence and control conditions their lives. Empowerment is the expansion of freedom of choice and action. Empowerment means increasing one's authority and control over resources and decisions that affect one's life. There are three areas of empowerment I,e economic, social and personal [Tsegaye & Bediye, 2002: 8-9].

Economic empowerment - is that in which women see increased access and control over assets.
Social empowerment - is that in which women experience a great role in decision-making and status in their family and communities.

Personal empowerment - is that in which women sense their self-esteem increased as a result of say experience in business ownership and so on.

As we have seen in the previous facts, women in Ethiopia in general concentrate at the lower stage of the ladder in terms of educational attainment and employment opportunity. Due to gender base division of labor they also lack access to information. These in turn affect their confidence and forced them not to participate in decision-making. Taking women position in political front for example, presently out of 548 seats in the house of people representatives, women occupy only 2.3 percent. The federal council, which has women as its speaker has 7 women among 128 members. At 'woreda' council, the number of women in office is 8 percent [UN, 2003: 6,7].

The above main categories of measurements reveal the existing gender inequality and their subordinate position. In general, the situations and problems of women can be summarized as follows:

- Since the majority of women do not own productive means, they do not own or control products and property. Thus they lack access to them.
- Lack of time because of unequal gender base division of labor in unpaid productive and reproductive activities.
- Lack of skill due to lower level of literacy and formal education.
- Lack of access to labor as a result of norms of gender hierarchy.

More over, society's conformities of women subordinate role, the law's conformities of that same subordination and finally women acceptance of subordination and lack of confidence and assertiveness that women exhibit contributes highly to the situation of life they are leading now. Today the government is exerting effort to reduce the inequality between women and men. Institutionalization of the political, economic and social right of women through the establishment of Women Affairs at 'kebele' level, formulation of women policy and issuance of revised family code are some among others.

Despite the fact of the political commitment, legal support and institutional arrangement, due to traditional set up of the society and thinking, patriarchal customary law and practices, women are still suffering from the disparities the country experienced for centuries.

Gender inequality has adverse impacts on number of valuable development goals. Development effort has limited impact if it does not involve women as full partners and beneficiaries. Enabling women to have access to economic resource is critical to the expansion of their choice. Provision of credit is therefore among others, one of the means to make women to have access to economic resources.

1.1 Statement of the Problem

Credit provision is believed to resolve most of the problems women encountered and which are discussed above. Access to credit helps women to generate income. This in turn may have an induced impact on asset ownership, improvement in household expenditure such as expenditure on education, health, diet etc. This again in turn helps women to be empowered economically, socially and personally. Access to credit, therefore, can improve women's decision making power within the household and in the community. Education to their daughter is, for example, one aspect of household matter that requires women's decision.

Having better financial position resolve problem to educate female in a way that parents especially mothers may not need their daughters to participate in different mini income generating activities to subsidize their family's income. Besides, credit provision helps women to have access to information because they will have contact with external environment. This in turn can change the attitude of mother's toward education.

However, as women lack access to resources, they are not in a position to fulfill the collateral requirements demanded by formal financial banks. Moreover banks procedure is somewhat confusing to illiterate poor women.

Group lending is one of the means to resolve these problems. It enables the poor to gain access to credit where they are discriminated against as a single borrower. Operating into group also improves group's bargaining position, reduces loan transaction costs of both lenders and borrower. In this mechanism, monitoring and enforcement contract are held by members themselves and so it provides an incentive for borrowers to repay. It also helps lenders to avoid adverse selection there by improves loan recovery rates.

However, credit provision in general and group lending in particular is criticized on the ground that

- It is inefficient due to the same problems that are associated with common ownership and team production.
- It can place women at risk of domestic abuse. It can also lead to refusing of household expenditure by husband.
- The increase in access to income is often at the cost of heavier workload with adverse effect on women's health and well being as women struggle to combine income earning with unpaid domestic responsibilities.

- The poorest or the hard-core people are so destitute that either they consider themselves unable to service debt and therefore shy from borrowing when a group guarantee is required, or saving and credit groups often discriminated them.
- Provision of loan of the same amount and repayment with in fixed repayment period without considering borrowers with different entrepreneurial ability and household with varying size.
- Though group lending is for the poorest of poor, it is not applicable in the area where there is no tight social connectedness and where there is high mobility.

Generally group base credit modality is believed to make credit to be accessible to women and hence provision of credit is one of the means to improve the living conditions of women. However, the scheme to be sustainable it must bring positive impact on the living conditions of the beneficiaries as well as must have better repayment performance.

This paper, there fore, tried to address these two main areas of concern. Besides, in its way of handling these, the paper tried to look whether the above problems actually manifested on women beneficiaries under the study.

1.2 Objective of the study

The objectives of this study are

1. To assess the impact of group based income-generating projects on the living condition of women in Addis Ababa.
2. To investigate the loan repayment performance of women.

1.3 Significant of the study

The position of women in the country relative to men is lower in all-main indicators such as level of literacy, years of schooling, nutritional status and level of income. Providing micro credit to the poor in general, group based credit in particular is a major strategy to solve women's problems and alleviate poverty.

This study is an improvement over the other in that it focuses on the provision of credit to the poorest part of the society - women. Moreover, it investigates group based credit scheme applicability to women living in Addis Ababa.

1.4 Limitation of the study

Some minor limitations encountered are associated with data collection method. Because of resource constraints focus group discussion with beneficiaries and MFIs staffs is not carried out.

Moreover, the study would have given additional information on group based credit scheme if it were possible to make a comparison between women group who are beneficiaries with those who had been beneficiary one time but withdraw now.

Despite the above limitations, the sample selected is representative enough and they are believed to give reasonable analysis and conclusion.

CHAPTER TWO

2. Literature review

2.1 The Situation of Women in the World

Women constitute about half of the world population. They contribute two-third of the total number of working hours needed for production process. However, women outnumber men in rank of the poorest people on earth. According to UNDP human development report of 2002, of 1.2 billion people surviving on less than \$ 1 a day, 70 percent are women. Besides, poverty is qualitatively different for women than men. Poor men face social and economic exclusion from government bodies and other institutions, which shape their lives on the ground of poverty. But women are twice excluded from public institutions on the ground of sexual discrimination as well as poverty [Sweetman, 2004:4].

Women have world's lowest rate of education, life expectancy, highest rate of illiteracy, maternal mortality and death from preventable disease. They constitute one-tenth of total remuneration and use only one percent of the world's material goods [UNDP, 2002, World Bank, 2003, Cited by Oxfam Community Aid Abroad's Gender Program, 2004:5].

Women are particularly vulnerable to poverty because of lack in access to credit, low educational facilities, lack of property right, inferior legal status, the narrow range of income generating or employment opportunity available to them and greater responsibility for raising children [Buden and Milward, 1997: 7]. These forced them to be crowded in low income and low skilled job. They tend to work in the invisible sector of the economy: that is casual work, piecework, seasonal work and home based [Mayoux, 1997:3].

Women are given secondary status both within the family and in the society, which has resulted in little credit for productivity. Their status limits their access to economic resources, hindering them ensuring their independence consequently. Women continued to be regarded as an appendage to the family as helpers to male heads of the households, as consumers but not producers.

Women right to ownership are often far less than those of men and their access to productive resource (e.g. land, capital) tend to be indirect and contingent on their relationship with men either by kinship or through marriage. Women independent property rights are highly constrained both in terms of legal rights (ownership, inheritance) and more importantly in the application of laws and /or the operation of traditional institutions of resource allocation

committees. Furthermore, both market and public institutions (Bank, extension agencies, etc) exhibit explicit or implicit gender biased by demanding permission from husbands to grant loans or ignoring the need of women producers. All these factors limit women capacity to produce independently of men and make them dependent on men for access to productive resource [Buden and Milward, 1995: 14].

Control over labour is another important constraint on women's productive activities, including limitation on women's control over their own labour and their lack of access to the labour offered by family members. Men often have non-reciprocal right over women's labour. Rigidities in gender division of labour, which confine women to certain tasks further, limit their control over the proceeds of production [Ibid. 14].

Women and men work essentially in different occupations, although the specific jobs they do vary both by region and over time. World wide, women are concentrated in clerical, sales and service jobs that are traditionally regarded as "female" occupations. They significantly underrepresented in production and transport and in administrative and managerial jobs in which men dominate. Jobs in which women predominant are less desirable and lower status occupations, employment is often contingent and promotions are limited [Mehara and Gammage, 1999: 543,544].

Where women and men have separate economic activities and income streams, there also tend to be division of responsibilities by gender over household expenditure. Women make major contribution to household expenditure and spend a large share of their income on general household rather than personal need whereas men tend to reserve a significant proportion of their income for personal consumption even in the situations of relative poverty. In fact the proportion of income men give to household expenditure declines with fall in their level of personal consumption [Buden and Milward, 1995: 15].

World wide, there are persistent gap between women's and men's earning. Women earn less than men do. They are paid 30 to 40 percent less than men for comparable work. The persistent male female earning differentials are a function of women's lower level of education/or experience. They work in lower-paying occupations and hold lower level positions. They are also more likely to be employed in part time work than men. In many countries, both developed and developing region women represent a disproportionately high share of the unemployed [Mehara and Gammage, 1999: 546].

Being unable to get job opportunity in the formal sector, informal sector is a vital for economic survival for the poor. More than 80 percent of workers in low-income countries and 40 percent of those in middle-income countries are employed in the informal sector in both urban and rural. The majority of the world's worker i.e. 61 percent is employed in the informal sector and women represent a significant share [Ibid. 541].

Virtually all women workers in low- income countries such as Tanzania and Ghana are concentrated in informal sector employment. Even in “middle-income” countries large proportion of women is in the informal sector, notably 76 percent in Thailand and as much as 80 percent in Turkey [Ibid. 541].

It is difficult to give a specific definition of the informal sector. Mostly informal sector is expressed in terms of its characteristics. The ILO study of Kenya characterised the informal sector as

- a. Easy entry
- b. Reliance on indigenous resources
- c. Family ownership of enterprises
- d. Small scale of operations
- e. Labour intensive and adopted technology
- f. Skill acquired outside the formal school system and
- g. Unregulated and competitive markets [UNECA, 1998:1]

Tilahun, 1996 also characterised informal sector as those enterprises engaged in various business activities of which the majority are without having license for their business operations and are outside government regulations. They are not officially recognised and registered by government and do not operate under various regulations such as income tax regulations. The majority of enterprises in the informal sector neither has sufficient capital nor has undergone any training. Most are with low income and incapable of covering basic requirements [Tilahun, 1996: 282].

Although informal sector work can be both paid and unpaid, much of the work women do in this sector is paid. Women's earning in the informal sector, however is low and often uncertain and working conditions are poor. Increasingly with home based work, informal sector activities reflect activities in the formal sector and are directly tied to them.

Women's participation in the informal sector reflects long term trends such as women's lack of occupational mobility due to education and skill levels, poverty that limits women's access to product and factor markets, and more recently the shifts in employer preferences resulting in the normalisation and semi- normalization of labour. Institutional factors such as the constraints posed by women reproductive roles are also other reasons [Mehra and Gammage, 1999:543].

2.2 A General Review of Group based Lending

One of the obstacles to improvement of productivity in poor countries is the unavailability of capital and high cost of obtaining capital. Investment or accumulation of physical capital is a necessary precondition for economic growth but investment in poor countries requires access to credit. Access to credit in turn requires credit information and collateral because there is asymmetric information between lenders and borrowers. Any solution aimed at increasing availability of credit is therefore that which reduce information cost. One of such mechanism is peer monitoring or group lending [Park and D.Alba, 2003:379].

Group lending is a method, which is offered by some government-related institutions, privately owned institutions and NGOs. It is a breakthrough approach to lending small amount of money to a large number of customers who are poor and cannot afford collateral. There are variations in the way group lending operated. Group size can vary but most are in the four to eight members' range. Either a group receives a loan, or loans are granted to some members first and then to others. Group members are responsible for the repayment of each other's loans and mostly meet weekly to collect repayment [Mayoux, 1997: 6,7].

The groups are mutually responsible for repaying the loan. Therefore, members of a group or peers, have an incentive to monitor the other member of the group. Group lending is therefore based on transferring most of the financial administration onto members and transferring the risk of non-repayment from the institutions to the group through peer pressure and joint liability [Ibid. 7].

One of the first innovative financial institutions that attempt to reach poor people was the Grameen bank of Bangladesh. It was established in 1976 as a small action research project by Muhammad Yunus to provide credit to land-less and asset less households using the principle of peer group monitoring.

In 1983, the action research program became an independent bank (Grameen Bank) in which members (poor households) controlled 75 percent of the issued share and the government of

Bangladesh owned the rest 25 percent. By 1994, the Bank had more than two million members of whom women constituted 94 percent [Demeke, 2000].

Grameen provides loan to individuals up to specified maximum amount without any collateral. Two of the group members receive their loan first and bank officer observes their repayment performance for five to ten weeks. If satisfactory, the next two members of the group receive loans, followed by the chairperson. Crucially, no group members become eligible for any new loans until all outstanding loans to all group members are completely repaid.

Varian (1990), Stiglitz (1990) and Besley & coate (1998) have identified several credit market failures that the group-based micro credit programmes have overcome. Group-based lending helps to resolve the problem of imperfect information and imperfect enforcement of lending. In this mechanism members hold monitoring and enforcement contracts themselves and so it provides an incentive for borrowers to repay and helps to avoid adverse selection of borrowers, there by improving loan recovery rates [Khandeker, 1998: 5].

Apart from increasing repayment and reducing adverse selection which, are discussed above group borrowing improves the groups bargaining position in relation to external lending sources and it reduces the loan transaction costs of both lenders and borrowers. It also offers the group strong economic incentives to its members, such as lower interest rates, price discounts on inputs and relief from individual processing of loans. Group borrowing enables the poor to gain access to credit where they are discriminated against as single borrowers [Braverman & Guasch, 1993: 57].

Group lending is better than individual lending because programme participation is self-targeting in a group-based lending, while individual lending cannot perpetuate and reinforce the existing socio-economic inequalities. Thus, group lending can lead to better targeting and better loan repayment through self-selection, peer-monitoring creation of social collateral [Khandeker, 1998: 16].

Under individual lending contract, the individual borrower has to fear in the case of default is the penalties that the bank can impose on him. Under group lending, he may also incur the wrath of other group members from the communities with high degree of social connectedness. This constitutes a powerful incentive device, since the cost of upsetting other members in the community may be high [Besley and Coate, 1993: 2].

While group borrowing provides many advantages, it can also causes severe inefficiencies and has many of the same problems that are associated with common ownership and team production. Everyone's welfare can be improved when each individual increases his effort or productive activity beyond the non co-operative equilibrium level [Braveman & Guash, 1948: 58].

Besley and Coate (1993) indicate both positive and negative effect of group lending on repayment rates by stressing on the ability of the borrower. The positive effect is that successful group members whose projects have yield sufficient return to make repayment worthwhile. The negative effect arises when the whole group defaults, even when some members would have repaid under individual lending [Besley and coate, 1993: 1].

For effective peer monitoring system, Stiglitz (1993) identified that member of a peer group must face strong and credible incentives to monitor the actions of other members. Joint liability for group loan including the threat of loosing access to additional credits in the event of non-repayment can be the incentive. It encourages members to monitor each other [Stiglitz, 1993: 80].

The size of the group is also crucial feature for its adequate performance. The small size increases the cost of default to each member and so it increases the incentives for peer monitoring. In small group, loan supervision is easier. Joint liability is more easily imposed, and with higher repayment rates, overall lending costs are significantly reduced. In large groups there is a free rider problem - each would prefer that others expend the energy required to monitor. Moreover the cost to each member as a result of default by any member might be sufficiently small that incentives to monitor - even apart from the free rider problem - are minimal [Heppi and Feder, 1990: 192, Stiglitz, 1993: 80].

Homogeneity is another important element for effective group guarantees and loan supervision. In Malawi and some areas of Bangladesh, where group lending has performed exceptionally well, loans are made only to relatively homogeneous groups. In Malawi, groups are always from the same village and often affiliated through kinship. Grameen Bank lends only to group from the same village [Heppi and Feder, 1990: 192].

Individuals with similar risk levels are most likely to form peer groups. If a high-risk individual forms group with low risk individual, the latter would, in effect, be subsidising the former.

Therefore, it is expected individual with high- risks to bond with high risks and the low risks to do the same [Park and D.Alba, 2003: 384].

There are two major schools of thought that are prominent in impact assessment of the scheme. The first focuses on change in the organization /Micro Finance Institution/ and its operations. The main focus for the impact assessment is the institution, which extend credit. The basic assumption is that if outreach and sustainability enhanced, then the intervention is judge to have beneficial impact as it can widen the financial market in sustainable fashion. This in turn is based on the assumption that such institution impact extends the choice of people looking for credit and saving services. The second approach, which is currently gained prominence focuses on the intended target group or clients rather than on organizations delivering the financial services [Tsegaye & Bediye, 2002: 7,8].

The most effective tool for assessing the benefits of micro credit program is measurement of its impact on the poor in terms of employment, income, consumption, asset, net worth, nutrition, contraceptive use, fertility and children schooling. The immediate impact of credit program reflected on employment and, consequently increases in income. The induced income and employment effects may have impact on other outcomes such as consumption, contraceptive use, fertility and education. In addition, asset accumulation and hence household net worth may increase if income generated from self-employment is sufficient to cover the cost of participation [Khandker, 1998:16].

There is no direct relationship between high repayment rate and household welfare. A high repayment rate of micro finance institution's loan may be maintained through cross financing from informal sector and or selling of asset. Because of these, repayment per second cannot be taken as the indicator for the impact of micro finance on the living condition of the beneficiaries [Sinha and Martin, 1998: 71].

Group lending method has been practicing in different part of developing countries. Experiences show that in some countries the scheme contributed positively to the living condition while few experienced small or insignificant change. The impact of the scheme in Bangladesh, Benin, Vietnam, India, Brazil & Chili and Thailand presented as follow.

1. Bangladesh

Studies made in Bangladesh on Grameen Bank loan participants showed a positive impact of the program in increasing household income, expenditure on basic necessities, employment,

nutritional intake and other social benefits for women such as the use of more reliable source of drinking water, contraceptives and latrine services as well as avoidance of earlier marriage [Fidler and Webster, 1996: 23].

The improvement in the well being of women was also supported by the study made by Khan Osmani (1998). In his study on Grameen bank, he came out with positively significant result on the variables like household income, asset owned by wife, family planning and food consumption [Khan Osmani, 1998: 35]

2. Benin

The experience in Benin showed the social and economic advantages achieved by women through the saving and credit system of low- income women group of "Banques des Femmes". The system started in January 1992 with only 15 women. After four years of life, by March 1996, 1200 small business of low- income women has been financed with a total of \$46,000. The system permitted women to overcome some of the insufficiency of the traditional financial "sou" system such as high and varying rate of interest (20% to 50%) per month and numerous requirements of the lenders [Mengobo, 2004: 1]. Owing to the procedure of credit allocation, members considered more the economic impact of their activities. Consequently, they became more careful when choosing economic activities [Ibid. 2].

Apart from the economic advantage mentioned above, the system enabled the group to enjoy its social consequence. The literacy program conducted with in the group allows easier access to diverse information and easier management of activities. There were also other changes in Gender relationship such as

- Some men began helping their wives with housework. The increasing amount of time spent by their wives in the business was playing a significant role in such shift
- It enabled women to create a context of more egalitarian debate.
- The women started to participate more effectively and more proudly in different social events and activities. They had been consulted about community planning.

In general the program liberalized women economically and socially from men's dominance and proved that the poor are able to improve their quality of life [Ibid. 3,4].

3. Vietnam

The income generation and facts for life communication projects (project F67) in Vietnam focused on women with the aim of strengthening their financial capacity. Women participation

in the project demonstrated improvement in their lives and care for their families. Family income increased dramatically during the project's implementation, and many families participating in the project had more cash on hand at the end of the loan cycle. They had also successfully repaid 100% of their loan [Mc Namara & Thi Thanh Nga, 1998: 381].

4. India

Micro finance institution in India provides small credit in the form of Differential Rate of Interest (DRI). DRI lending scheme for the poor in India is one of the poverty focused strategies adopted by the government to generate employment, increase productivity, and reduce poverty through provision of capital to the self-employed in trading, production and service activities. It focused mainly on self-employment since it is the most common income generating activities among urban women in India. According to the interview made by Everett and Savara (1986), few Indian indicated that there had been small increases in income, but most of the borrowers remained below the poverty line. Though this, the borrowers expressed that the loan increased the respect they received from family and community members. In relation to this, several women reported the increment in their self-confidence and in some cases assertiveness [Everett and Savara, 1986: 83-93].

5. Brazil and chile

Based in two different sources of data, Brazilian and Chilean banks and NGO's micro credit programs are evaluated by Aroca (1993). According to the study, micro credit program for the Chilean case as a whole had a positive impact I,e, on the average the income of micro-entrepreneurs increased by 25% more than that those who did not. The result for the Brazilian data appeared highly effective, with high statistically significant increases in the average income of their clients [Aroca, 1993:9-11].

6. Thailand

In Thailand, micro finance institution called BAAC created in 1966 to increase farmers' access to capital and reduce their dependence on informal lenders. In its group lending method, it discovered the means to achieve an initially high rate of loan repayment, which was increased further as BAAC came to appear in farmer's eyes as a permanent institution. BAAC penalty technique on default is believed to contribute highly to this achievement. The two techniques were

1. The amount overdue was subjected to a high (at about 2% per year) interest rate which was followed up on the repayment of principal and
2. No new loan was given until the old was sorted out, and even then the group could not be sure of getting a new loan.

However, BAAC credit had number of disadvantages most notably a higher transaction cost imposed on borrowers. Despite repeated attempts, BAAC remained unsuccessful in expanding its scope of activities. It was awkward to give working capital loans to households that consume a large portion of what they produce [Siamwalla et al, 1993: 78-79].

2.3 Women and Micro Credit

Credit is essential in poor economies in a variety of ways. It is required to finance working capital and investment in fixed capital, particularly among those who are poor to accumulate much saving [Parikshit, Dilip and Debrage, 1999: 2].

Getting out of poverty trap is difficult for the poor without outside intervention. Credit usually viewed in terms of its ability to help people break away from its trap. It is a liquid asset through which the poor can acquire productive capital to improve the capacity to generate income, saving and investment. The increase in income and the possession of asset will enable the poor to fulfil their basic needs. Credit increases the poor ownership of or access to physical assets, raising productivity and income, creates employment opportunity and is a means for provision of technical and promotional services [Tilahun, 1996:284]

Lack of capital makes it difficult for many poor people to become self-employed and to undertake productive employment generating activities. Providing credit is a way to generate self-employment opportunities for the poor [Khanker, 1998: 11].

Access to credit is potentially more productive than other kinds of development assistance. Loan gives the borrowers the freedom to obtain the resource they need the most and the freedom to deploy those resource in the manner they deem most useful.

The poor are in a best position to know their own needs and credit enables them to satisfy those needs. Furthermore, credit can be even more effective than cash handout in fighting poverty because the latter may simply endanger a mentality of dependency, which entrenches rather than ameliorates poverty [Park and D.Alba, 2003: 380].

With few other forms of alternatives, microeconomic initiative on offer, credit and saving schemes seen as a useful support for many poor people. It is argued that they can provide

resource to people otherwise left out of the loop, who would have to resort to less favourable lending and saving possibilities. These schemes can allow people to peruse and protect their livelihoods, and repeated loans can be given, so that the schemes become part of the long-term support system that reduces vulnerability. Access to loan of increasing size provides the possibility of stepping on economic ladder [Pankhurst, 2002:10, 11].

Micro finance programmes are currently being promoted as a key strategy for simultaneously addressing both poverty alleviation and women's empowerment [Mayoux, 1997: 4]. To address the various aspects of women's poverty and begin to challenge inequality is to formulate separate projects for women, or to include women's components with in larger projects [Khider osman, 2002: 2].

Addressing gender issues in micro finance interventions means more than targeting a programme toward women, or counting the number of loan given to women. It implies examining how women and men's economic and social position is reinforced through the institution that they deal with, and national level laws and custom govern [Una Marry and Ruxandra Boros, 2002: 4].

Programmes targeting women can be justified as they address structural causes of gender inequality over the long term. Targeting women may sometimes prove to be the most practical entry point for making the program work and as bonus raising gender awareness.

In many countries as men generally own land and other fixed capital, women tend to lack collateral required by formal financial institutions. Very often procedures in formal lending institution require the signature of male head of the household. Women tend not to know about their right to apply for financial services, even in industrial countries and countries in transition [Ibid. 5].

There are other reasons for women's greater viability in credit and saving schemes. Their involvement in income-generation believed to be more effective path to poverty alleviation in households and communities. Women are said to be more "prudent and trustworthy" in terms of repayment and they are easier to be found if they fail to repay their debt. Women in some countries are less mobile than men. They will not tend to take the money and run. The link between mother's income and family welfare is also made that is, the fact that women are more likely than men to prioritise spending income on the need of their family [Pankrust, 2002:10]. Grameen targets women on the basis that they are better re-payers than men and that loans

extended to women benefit all the household members more with improved level of food intake, health and education [Mayoux, 1997:6,7].

It is also perceived that the small credit amounts in micro finance seem to suit women better than men.

Informal lenders can be a source of credit, but poor household do not gain from investing in productive income increasing activities because of high interest rate. They also are not reliable rather a risky source of finance for income generating activities because mostly they are formed with people living in the same area and it is exposed to covariant risk that affects equally every member of the group. A micro credit programme, which enable to pool risk across areas can provide credit to poor at affordable cost and can help them become productive self-employed [Khandker, 1998; 11].

Even when opportunities for loans for micro entrepreneurs exist with in the formal banking system (due to subsidised government scheme), often the application and screening process is time consuming and sometimes unpleasant. Entrepreneurs are happier to pay higher than market rates to micro finance intermediaries ensuring they get loans quickly and conveniently rather than trying to access loans that are hard to get [Una Marry and Ruxandra Boros, 2002: 5].

Although credit is believed to contribute positively to the living condition of women, credit to women in general, group based in particular can have negative impacts on the ground that the increase in access to income can be at the cost of heavier work loads with adverse effect on women's health and well-being. This is because women straggle to combine income earning with unpaid domestic responsibility [Mayoux draft, 1997: 33].

The “women only” targeting of credit can also place women at risk of domestic abuse when they are forced to act as fronts for others who are excluded from access to credit. In some case, men set up enterprise over which women have little control to use the loan. In some programmes, there are increasing fears that women’s small income leads to male withdrawal of contribution to certain types of household expenditure [Mayoux, 1997:2].

Inbier (1988) looked the negative side of group-based income generating from group formation angle. Group based income generating micro credit targets the poorest of the poor because these people are not in a position to offer physical collateral. However, the poorest or the hard- core people are so destitute that either they consider themselves unable to service dept and therefore

shy from borrowing when a group guarantee is required or saving and credit groups often discriminate these women.

Sinha and Martin (1998) attack the micro finance institution in that it doesn't consider people with different entrepreneurial ability and household with varying size, but provides loan of the same amount across the borrower and demands it to be repaid back with in fixed repayment period. The households vary in their human and physical capital resources, and their ability to cope with risk. All households may not use credit provided by micro finance institutions directly for productive purpose. Resource poor households tend to use additional credit for smoothening consumption. Thus, credit has low marginal return to capital, and adversely affects the household's ability to maintain regular weekly repayment [Sinha and Martin, 1998:71].

2.4 Micro credit and Women in Ethiopia

Ethiopia is expected to experience rapid expansion and increase in economic opportunities. To maximize the return to these investments and ensure sustained economic growth, it is essential that human resource be deployed and used efficiently.

In Ethiopia, approximately 27 million people are living in poverty. Due to the existence of many discriminatory practices such as gender-based division of labor, lack of access and control over resources, women comprise a majority of those living in absolute poverty [UN, 2003: 2].

The large number of women languished in poverty implies an inefficient use of resources. Poor Ethiopian women have much potential to contribute to economic development, yet their potential too often goes undeveloped and underutilized [Tsgaye and Bediye, 2002:6].

Women play triple role - productive, reproductive and community. Despite the immense contribution women make, being more disadvantaged in skill, availability of time, access to economic resources and being subject to greater cultural taboos and restrictions, they are unable to access or receive equal benefits from the economy. This further exacerbates gender differentials, increasing the burden of poverty on women [WAO & World Bank, 1998: 6].

Women work on average 13 to 17 hours per day, yet they are not considered as part of productive work force and do not receive a fair share of a country's resources [WAO, 1995: 1]. There are very few women in professional, technical and administrative fields and the majority of women work in the informal sector.

Lack of access to credit is a critical constraint that most women engaged in the informal sector face. They commence their business with little capital, ranging from birr 10 to birr 100. Many

acquire capital from family or through previous employment as maid and in other similar services [WAO & World Bank, 1998: 19].

In Ethiopia, the formal financial institutions that are owned either privately or government, involved in financial resource mobilization and allocation. However they are characterized by high collateral requirements, elaborate paper work and high transaction. For the most part, the banks serve big businessmen and do not regard poor households as bankable and so many small credit - worthy businessmen with viable investment ventures are denied access to institutional credit, as they could not afford the required collateral.

Compared with the formal financial institutions, informal lending is by far the important source of finance to the rural and urban poor. It embraces a wide group of individuals and institutions whose financial transaction are generally not subject to direct control by the country key monetary and financial policy instruments. Individual economic entities in the informal sector include moneylenders, money-keepers, tradesmen, friends and relatives, neighbors etc and informal institutions are 'Idir' (funeral association), 'Equib' (rotating saving and credit association) [G/Yohannes, 2000: 110-113].

The operation of the informal sector derives their rules and regulations from the country culture and customs. Transactions are conducted on the basis of trust and intimate knowledge of customers. The common cultural background and the mutual obligations and fervent bonds of family and kinship operate to promote trust, accountability and moral responsibility that is lacking in formal banking system. Besides, informal lenders have easy access to local information at reasonable cost about their borrowers with whom they have social relations. This permits credit contacts to play a more direct role in enforcing repayment. Also, the fact that collateral is rarely used in the informal sector it enables the borrower to flexibly satisfy financial needs that cannot be met by the formal financial institutions [Ibid. 114]. Nevertheless, it is not without limitation. Scarcity of loan able funds for investment and exorbitant interest rate that is charged on these loans is the main. As a result, the profitability of the business carried out on borrowed fund is affected [Tilahun, 1996: 287-288].

To rectify this situation and provide more source of credit to the poor, in 1996 the Federal government passed a proclamation to license and supervise the businessmen of micro finance institution (Proclamation 40/1996). This proclamation covers micro finance institutions that

grant credit in cash or in kind. It enables the low-income sector of society to obtain credit through group guarantees instead of collateral in the form of property.

The first micro finance service in Ethiopia was introduced as an experiment in 1994, when the Relief Society of Tigray (REST) attempted to rehabilitate drought and war affected people through rural credit scheme. It was inspired by other countries experiences and adopted to the conditions of the Tigray region [Digifie and Yewhalawork, 2000:15] In line with the new legislative framework for micro finance, REST was legally registered as a financial services institution called Dedebit Credit and Saving Institution (DECSI). It is structured around the formation of small local savings and credit groups, and uses social collateral rather than material asset based.

Following these different MFIs established and is now operating across the country. Until June 2004, Ethiopian MFIs have served 904,951 clients nationwide. A study commissioned by UNDP in 2000 put the number of micro finance seekers as six million. Taking that figure just to be conservative, we can say that Ethiopian MFI have served only about 15 percent of the demand for micro finance services.

With regard to the impact of MFIs credit on the living conditions of client, different studies made and this paper summarizes the result of some studies as follow.

According to the study made by Meehan in 2000 on credit provision in Adigudom, Tigray respondent were asked to assess the impact of DESCIC credit on their household income, both initially (1994) and in 1999. Some 60 clients (94%) reported a considerable I,e (53) relatively modest and (7) increases in income as a result of the initial credit taken while three said there had been no change in their economic status, and one said she was worse off. Five years on, those who see themselves as much better off had fallen from 53 to 33, and those who saw no change in their income had almost trebled. Two respondents said they were "worse off" in 1999 [Meehan, 2000:94].

However, on the same study it is indicated that credit provision had a significant impact in increasing agricultural production through building up of production assets particularly drought oxen, and increasing the amount of land farmed by clients who were able to retrieve land which were previously rented out. Some clients were also able to rent in more land. Trading activities also increased in scale and particularly female clients were able to take on trading activities, which had previously been inaccessible to them, due to lack of capital. The increased income

generated by credit had positive impact on household food supply, educational provision for children as well as clothing and other basic necessities [Ibid. 109].

The study made by Tsegaye and Bediye in 2002 revealed different fact. They made study with special focus on the activities of four MFIs - Oromia Credit and Sharing Company (OCSSCO), Bussa Gonfa Share Company (BGSC), Meklit Share Company (MSC) and Addis Credit and Saving Institution (ADCSI). They analyzed the impact on three levels - Enterprise level, Household level and Individual level.

Changes in Enterprise's include changes in enterprise business management, net worth, fund availability and estimation capacity of clients. Since all MFIs under the study are minimalist in that they do not provide training and their field staff are not equipped with the necessary skill to give technical or managerial advice at grassroots level, participation in micro finance brought no significant difference. In terms of fund availability, many clients reported shortage of fund [Tsegaye and Bediye, 2002: 21].

Looking the impact at household level, it enabled the household to enjoy increment in income, contributed to ownership of additional household asset and improved the welfare of women as measured by housing improvement, education, diet and food security. The result achieved indicated that credit had enabled the households to generate disposable income [Ibid. 31-38].

The assessment at the individual level of women borrowers showed that larger proportion of frequent borrower enjoyed increase in income and increase in their savings. It also enabled them to be involved in decision-making. [Ibid. 39-44]

Study made by Damte in 1996 in Debre Berhan showed similar positive result. In Debre Berhan, individuals who wanted to benefit form a group of their own choosing. Members of the group often have similar social and economic status, live in the same village or locality or perform similar activities. Women borrowers comprised by far the majority (90 percent) while men account for the remaining 10 percent. The average recovery rate of the micro enterprises was 93 percent.

Preliminary impact evaluation of the randomly taken 65 borrowers showed that about half (49 percent) of the sample household had experienced an increase in income levels due to loan. Activities that used to be performed previously revived and accordingly it expanded and/ or diversified income sources. The possibility of handling varied activities and again the possibility of securing it at relatively low interest rate are among the main reasons for the rise in income

level [Ibid. 317]. Generally the scheme achieved its prime objectives i.e improved income level and created employment opportunities for targeted group [Damte, 1996: 312-313].

The experience at Debre Berhan also shown that the poor had a better repayment record than the relatively wealthier individual borrower.

CHAPTER THREE

3. An Overview of the MFIs selected for the Assessment

3.1 Establishment and Areas of Operation

Following the licensing of proclamation number 40/1996, Gasha s.c and Africa Village Financial Service /AVFS/ established in 1998 to operate at national level while Addis Credit and Saving Institution/ADCSI/ was established in 2000 to operate in Addis Ababa. Before they evolved as licensed MFIs, the first two were operating as part of NGO program and ADCSI as government program. ADCSI has 10 branches one at each sub-city and 99-service delivery posts one at each 'kebele' level. Gasha has 4 branches and AVFS has 3.

Table 3.1 Distribution of MFIs by its year of Establishment and Areas of Operation

MFI	Year licensed as MFI	Licensed to operate in	Branch	Sub-branch
ADCSI	Jan 2000	Addis Ababa	10	99(Service delivery post)
Gasha	May 1998	Nation wide	4	1 and 118 service outlets
AVFS	Nov 1998	Nation wide	3	1

3.2 Ownership Structure

The ownership structure of the three MFIs is a mixture of government, NGOs, association and private individuals. For ADCSI the regional government share is 97% and associations (women association, youth association and teacher association) and individual hold the remaining, I,e 3 %. In the case of Gasha Share Company, the sponsoring NGO owns 57% of the share while individuals own 43% of the total share. With regard to AVFS, 100% owned by private organization.

Table 3.2 Distributions of MFIs by Ownership Structure

MFI	Paid-up capital (in million birr)	NGO in percentage	Regional government in percentage	Association (cooperatives) and individuals in percentage	Individuals in percentage	Private organization in percentage
ADCSI	1.1	-	97	3	-	-
Gasha	0.2	57	-	-	43	-
AVFS	0.2	-	-	-	-	100

3.3 Target group, Credit Delivery Modality and Approach

All the three MFIs have targeted active poor. Their objective is basically to support the development of money and capital market of the country in particular for providing financial service to small and micro enterprise. All give priority to women clients. Of the total clients 58 percent are women for ADCSI, and 60 percent for both Gasha and AVFS.

Although all the three MFIs use group-based lending credit modality, ADCSI and Gasha also give loan to individual borrowers, associations and cooperatives. For AVFS the group must be member of 'Idir'. Concerning Gasha, the group must either resides in the same 'kebele' or must be member of the same 'idir' or participates in the activities that enables each members to know each other such as 'iquib', but members must not have blood relationships.

The group size varies but most are from 4 to 8. Almost all groups are formed on self-selection/free choice of members. Different individuals and social groups participate in screening and identifying the potential client. ADCSI for example uses 'Kebele' while AVFS uses 'Idir' in addition to kebele and Gasha uses 'idir', 'kebele' staffs, elders and its staffs.

In all the three MFIs, clients are eligible for repeated loan on condition that they fully settled their previous loan as a group. Subsequent loan amount grows with round of loans. All are minimalist in their approach in that they mainly provide financial service with minimum training (orientation) on the workings of micro finance, interest rate, payment, loan term before the clients take the credit service.

3.4 Repayment period and Interest rate

The installment period of the three MFIs varies from weekly to yearly depending on the type of loan. The loan product of MFIs divided into three

1. Agricultural loans - These are loans for agricultural input, livestock, bee-keeping etc. The loans are usually term loans where the principal and the interest rate are paid at the end of loan term.
2. Micro lease loan - is contractual agreement between owner of property / leasor/ and business maker/lessee/ to use the property for limited period or indefinitely and rent is paid based on the agreement. This type of loan product is currently carried out only in ADCSI and Gasha is making study on its implementation.
3. Micro-business loans - these are loans for petty trading, handicraft and other service that are repaid weekly, bi-weekly or monthly on regular base [Amha, 2002: 9, Tirit, 2005: 19-20].

For the study at hand micro business loan is the type of loan provided to women group under the study and focusing on it, ADCSI mostly collects monthly, and Gaha and AVFS collect bi-weekly and Weekly. The loan is collected at the service delivery areas or service outlets.

Concerning lending interest rate, Gasha charges 13% per annum while ADCSI lending interest rate varies from 10% to 15 % and AVFS from 13% to 16% depending on the type of loan. ADCSI for example set a lending interest rate of 10% for short-term loan, 12% for term loan and 15% for micro lease loan. Above this, the three MFIs collect 3% service charge per month. Concerning interest rate on saving the two MFIs - Gasha and AVFS pay the minimum interest rate set for saving by the National Bank of Ethiopia, I,e 3% while ADCSI sets 4% per annum for book and compulsory saving and up to 5% for time deposit per annum depending on the amount and duration of the savings.

Table 3.4 Distribution of MFIs by their lending interest rate on micro business loan and interest rate on saving

MFI	Lending interest rate in percentage	Interest on saving in percentage
ADCSI	10	4
Gasha	13	3
AVFS	13	3

3.5 Saving product

AVFS mobilizes saving from their client while ADCSI and Gasha mobilize from both clients and non-borrowers. In general there are four types of saving.

1. Center saving - clients are required to contribute fixed amount per week, two weeks or month to the center for social development purpose.
2. Compulsory group saving - it involves keeping at least a certain percentage of the groups current loan size in its account or save. This is sometimes called loan tax. There is also a fixed amount of saving per week, two weeks or month, which cannot usually be withdrawn.
3. Individual voluntary saving - this is the type of saving made by individual. The individual is free to deposit the amount she/he wants and also withdraw any time when the need arise.
4. Institutional voluntary saving - these are voluntary savings from institutions such as 'Idir', school, church etc [Amha, 2002: 11 – 12].

The above saving products grouped in to two - compulsory and voluntary. The compulsory saving is linked to loan. Focusing on group lending credit modality, borrower is required to save certain amount of loan at its disbursement. For ADCSI, the percentage, which is deductible at the disbursement, can vary depending on the amount of loan taken and also on whether the borrower is first round or repeat. For example out of the total loan disbursed, ADCSI demands new borrower to save 10% of the total disbursement for the loan size up to 2000 birr and 15% for repeat borrower. For the loan size of 2000-5000 birr it demands borrower to save 15% for new and 20% for repeat borrowers. In addition all individuals are required to save 10 birr per month under the group name.

For Gasha, each individual in a group is required to save 10% at the time of disbursement.

Following this, the individual have to make a saving of birr 4 per week for the loan size up to 5000 under group name. The amount of saving increased by 2 birr for every 500 birr difference. The requirement is a little bit different when we come to AVFS. AVFS gives 14 weeks time period to new women group before it provides any credit service. These weeks help women to know each other closely. Apart from this, in this time period each woman required to save 10% of the amount that they are going to borrow from the micro finance and the amount considered as loan insurance fund. Following the credit service, each woman must save 1 birr per week irrespective of the loan amount/size.

In all the three MFIs the client can with draw the compulsory saving only after the group loan is settled.

In the case of voluntary saving, borrowers under these three MFIs encouraged to save. The borrower is free to withdraw it any time when she is in need.

3.6 Summary of the sample selected for the study

The total sample size of 140 is taken from the three MFIs selected for the assessment. The sample size of 50 is taken from each ADCSI and Gasha while the remaining 40 is from AVFS. All the sample groups are made up of women clients who are taking loan on group liability base.

Women groups in three branches- 'Gullele' sub city, 'Ledeta' sub city and 'Addis ketema' sub city of ADCSI are selected for the interview. For Gasha, women in three branches and for AVFS women groups in two branches interviewed. The following table summarizes the sample beneficiaries.

Table 3.6 Distribution of sample Beneficiaries with their Respective MFIs

MFI	Branch	Number of women groups interviewed	Total
ADCSI	'Addis Ketema' sub city	20	50
	'Ledeta' sub city	20	
	'Gullele' sub city	10	
Gasha	'Kolfe' branch	20	50
	'Merkato' branch	20	
	'Entoto' branch	10	
AVFS	'Abey' branch	29	40
	'Kolfe' branch	11	
Total	-	140	140

CHAPTER FOUR

4. Data and methodology

4.1 Data Type and source

The data used in this study is mainly primary and cross-sectional. Secondary data also used to collect information on MFIs, which are instrumental for women groups under the study. The data is both qualitative and quantitative. Women beneficiaries stayed a year and above are selected since the maturity period for the installment loan is one year. Accordingly, loan with maturity date already passed before the time of data collection are utilized in the study to make the analysis on repayment performance.

4.2 Sample Design and Procedure

A study covers women groups under three MFIs. Four-stage sample selection procedure was adopted: Selection of MFIs, selection of branches and sub-branches under the selected MFIs, selection of women groups and lastly selection of woman from each women groups.

In the first sample selection stage, 24 MFIs that are currently operating in the country identified. Of these 9 are licensed to operate in Addis Ababa and Nation wide. Since three MFIs (Agar, Harbu and Letta) are established and licensed to operate recently I,e in 2004 and on wards, they excluded.

Due to budget and time constraint, further classification called for. Accordingly the remaining 6 MFIs categorized in to three- high level, medium level and low level based on the consideration of number of women clients each MFIs has, portfolio size, number of branches and number of sub-branches/service outlets under each MFIs.

Branches and sub-branched for the study is then selected by considering two things i.e. availability of resource on one hand and the question of representatives on the other hand.

Following this, lists of women groups were collected from the selected sub-branch offices under the three MFIs and proportional allocation on the total sample size was made. Individual woman beneficiaries for the interview were selected using systematic random sampling technique. Lastly, a survey was conducted by employing a structured questionnaire. Enumerators who handle data collection task trained and idea shared.

4.3 Methodology

The methodology employed in this study for assessing impact of credit on the living condition of women borrowers and for analyzing determinant of loan repayment performance is discussed below. Statistical software such as SPSS version 10 and STATA version 8 are employed. Moreover, statistical tools such as frequency cross tab, descriptive statistics utilized for exploring, summarizing and analyzing the data.

4.3.1 Impact Assessment

All micro finance programs are undertaken based on the assumption that intervention will change human behavior and practices in a way that lead to achievement or raise the probability of achievement of desired outcome. This is to say, intervention is believed to bring a change in the values of key variables between the out come on agents which have experienced an intervention against that values of those variables that would have occurred had there been no intervention. But the main problem is that no agent both experienced an intervention and at the same time not experienced an intervention. This creates methodological problem [Hulme, 2000: 81].

Different method has been used in different studies to assess the impact of intervention. One of these is multiple regression analysis.

Multiple regression method is used to analyze the change in a specified dependent variable (say poverty) produced by changes in specified independent variable (say micro finance project) holding other specified influence (say weather, input availability, out put price, political conditions etc) constant [Mosley, 1997: 5]. But this method has rarely been used in micro finance impact assessment because of its enormous demands for data on other possible causal factors and its assumption [Hulme, 2000: 84].

The other method is control group method. This method requires a "before" and "after" comparison of population that received a specific treatment such as micro finance credit provision and an identical population or as near as possible that did not receive the treatment. This method has an advantage over multiple regression analysis in that it is free of biased associated with regression model such as assumptions of normal distributed disturbances, constant variance of error etc.

However control group method confronts a range of difficulties to the practical implementation of impact evaluation. The main are sample selection bias associated with control group,

misspecification of underlying relationship and motivational problem which can be arise if individual with either target or control group becomes reluctant to respond or unable to reach her/him due to death or emigration [Mosley, 1997: 8-13].

Although it is possible to tackle sample selection bias problem through more careful selection of control group, problem of misspecification by adoption of model that conceptualize causation and motivational problem through replacing dropouts with individuals sampled at random from the original population, the approach is feasible on rare occasion. Moreover this approach will not be valid when the take up of micro finance service is based on diffusion through heterogeneous population [Ibid. 8-17].

The other method of impact assessment is the "before" versus "after" comparisons demonstrating program or the lack of it in time trend of specified indicators. However, this methodology too does not escape from limitation faced by others. Accordingly Johnson and Rogaly (1997) indicated the limitation in this method in that respondents may give false information if the loans have been used for a purpose other than the intended one. They also added the difficulties in establishing a causal relationship to the actual loan in question, as it demands knowledge on all sources and uses of funds [Johnson and Roglay, 1999: 73]. Mosly (1997) also elaborated the limitation in this approach by indicating the possibility of achieving the desired outcomes but due to factors other than the intervention. He exemplified this expression in that poverty reduction can be achieved but can be a result of many factors such as price fluctuation, change in government policy, improved infrastructure or simply due to better weather. Because of this negative outcome such as decline in income of the beneficiaries may still be a success if without it the outcome would have been worse [Mosley, 1997: 8-13].

Despite its limitation, this method has been used by many schools in the field of micro finance for assessing the impact of micro credit on the target beneficiaries. In this study too it is employed to assess the impact of group- lending on the living conditions of women.

4.3.2 Determinants of Loan Repayment Performance

Delinquency status of the borrower is the dependent variable used to study the loan repayment performance of the beneficiaries. Delinquency status defined as the total loan amount in arrears at the date when complete repayment was promised or the loan not collected on current and past due loans for the reference year.

The loan repayment performance is affected by different factors. This paper identifies key factors that influence the repayment performance. These factors are - individual characteristics of a borrower in a group, group characteristics and lender characteristics.

Individual characteristics of the borrower in a group expressed in terms of

- Age of the borrower
- Educational level of the borrower
- Number of dependent in the household
- Frequency of loan taken by the borrower
- Total business income financed by the loan
- Total off business income
- Total household expenditure

Similarly group characteristics reflected by

- Group size
- Group formation
- Group relation
- Asset

And lender characteristic expressed in terms of

- Loan rationing by the lender
- Loan amount
- Suitability of loan repayment period
- Supervision and follow up

4.3.2.1 Description of the Explanatory Variables

1. Age of the borrower

Age of the borrower can affect the repayment performance either positively or negatively. Age affects repayment positively in that as age increases the borrower acquires stability and business experiences. This increases the ability of the borrower to generate more income. This in turn increases the potential to repay and so it affects repayment positively. However, age can negatively relate with repayment in that as people get older their ability to generate income would decline. The sign is, therefore a priori ambiguous

2. Educational level of the borrower

Educational level of the borrower can affect repayment either positively or negatively. A borrower with higher educational attainment has better ability to utilize the loan appropriately. The appropriate utilization of the loan mostly increases income from the business. It, therefore increase the capacity of the borrower to repay. However, repayment is a function of not only the ability to repay but the willingness to repay too. The less educated can be more wary in repaying the loan because for them the consequence of default is more serious. This leads the educational level to relate negatively with repayment. Here again a priori sign is ambiguous.

3. Number of dependent in the household

The higher the number of dependent in the house hold, the more risk averter the borrower becomes since the consequence of default affects dependents that are more vulnerable. Hence the higher the dependency ratio, the better the repayment performance [Sharma and Zeller, 1996:17]. However, the higher the size the higher is the probability of using the loan to non-intended purpose. The higher the diversion particularly to non- income generating activities, the lower the repayment performance hence the priori sign is ambiguous.

4. Frequency of the loan taken by the borrower

Frequency of loan is the number of times a borrower has received a loan. Frequency of loan increases with duration in the scheme. Repeat borrowers are less likely to default because they want to maintain good reputation. On the other hand, the first borrower also wants to establish good relationship with lender. Hence prediction on the sign of coefficient is ambiguous.

5. Business income financed by the loan

As income financed by the loan increases, the borrower becomes capable of repaying back her/his loan. One can expect positive relation between the two. However the increase in income can affect the incentive to repay in that the borrower can feel as if she/he is no longer demand credit from the same credit scheme.

6. Total off - business income

If the borrower has different sources of income other than the income financed by the loan, the borrower capacity to repay increases. Even in case of failure in the business financed by loan, the availability of these income sources helps cross financing. Therefore one can expect a positive sign on this variable.

7. Total household expenditure

The borrower with high expenditure is more likely to default than those with small expenditure. As expenditure increases, under ceteris paribus, the potential capacity to repay reduces and hence affects repayment negatively.

8. Group size

The bigger the group the more imperfect is flow of information among members in a group. Problem of asymmetric information makes monitoring and enforcement to be costly and less effective [Sharma and Zeller: 1738]. In this case the group size is expected to relate negatively with the repayment performance. However, with increasing group size, economics of scale and risk management can be realized by the group. Some transaction costs that have fixed cost character for the group as a whole decrease with increasing group size. The reduction in cost, widens the profit margin of the borrower and hence increases the potential to repay. This leads the group size to relate positively to repayment performance. Therefore a priori sign on group size is ambiguous [Zeller, 1996: 28].

9. Group formation

Is a dummy variable that equals "1" if the group is formed by themselves and "0" if it is formed by external bodies like MFIs staffs, 'kebele', 'Idir'. When the group is formed on self-selection base, screening is more effective than those groups that are formed by outside agent. Hence, it is expected that the group formed by self-selection to increase repayment performance [Sharma and Zeller, 1996: 18].

10. Group relation

This measures the proportion of members in the group that are related to each other. The information flows are expected to be better among relatives and so there would be less moral hazard associated with bailing out a relative who is unable to meet the repayment requirement. So for this reason group relation is expected to relate repayment performance positively. But this can make it difficult to impose sanction on relatives and so it dilutes the enforcement process. This, therefore, makes the coefficient to related negatively with the loan repayment performance [Ibid. 16]

11. Asset

Even though group lending is credit provision based on social collateral, each member of a group sizes their asset to a group as collateral. As a group is liable for any member default in a

group, it can sell the asset of the defaulter to settle the group debt. For this we expect negative relationship between asset values and default, as the borrower is more likely to pay their loan back if they have to give up their collateral when they default [Jenkins, 2000: 14].

12. Loan rationing

Loan rationing is computed as the difference between the amounts of loan applied for by the individual and the actual value of loan received, expressed as a percent of the total loan amount received. Higher level of loan rationing implies higher level of unfulfilled credit demand hence affect the repayment performance negatively. However, if the rationing is to generate greater concern for protecting borrowers from future privileges, it increase effort to lower delinquency and hence it is related positively with repayment performance [Ibid. 15].

13. Loan amount

The loan size is a result of both demand and supply factors. If the demand of the borrower in terms of loan size is higher than the size fixed by the lender, the loan size reflects the perception of lender. If, however the demand is equal to the attributed loan size, lender could give more if the borrower has asked for [Godquin M, 2002: 12]. In this particular study, the loan size is fixed by the MFIs and almost all women receive less than the amount they wanted. The loan size hence reflects the character of the lender.

Concerning the sign of the coefficient, the greater the loan size, the greater the possibility of unwilling default and hence affect repayment negatively. On the other hand as the loan amount increase, the penalty associated with any delinquency $[(1 + r + p) * LAMNT]$ increases, where p is the incremental penalty rate of interest and LAMNT is loan amount, This in turn reduces default hence loan amount related positively with repayment performance [Sharma and Zeller, 1996: 13].

14. Suitability of loan repayment period

Suitability of loan repayment periods is a dummy variable taking the value of "1" if the repayment period is suitable and "0" if not. A borrower may be forced to sale her/his asset or making cross financing if the repayment period is not suitable. This reduces the borrower potential to repay hence it is related negatively with the repayment performance.

15. Supervision and follow up

It is a dummy variable that equals "1" if the borrower responds that supervision by MFIs is satisfactory and "0" otherwise. If there is continuous follow up and supervision visit to evaluate

the loan utilization and repayment of the borrower, loan diversion to non-intended purpose reduced and repayment performance increases, hence it is expected to have positive relationship with repayment performance.

4.3.2.2 An overview to the Formulation of the Model

To arrive at the best estimate, it is essential to employ the appropriate model for conducting estimation process. As the dependent variable, delinquency status, is a dichotomous variable which takes the value of "0" if loan is repaid / if the borrower is not a defaulter/ and "1" if the borrower is a defaulter, the probability model is appropriate. There are four most commonly used approaches to estimate probability models. These are linear probability model/ LPM/, the logit model, the probit model and the tobit / censored regression/ model.

Eventhough because of its simplicity LPM was used quite extensively, it is not employed in this study to make the analysis on the repayment determinants of the borrower. If we take the following LPM for the sake of illustration

$$Y_i = B_1 + B_2X_i + \mu_i$$

Where X = a vector of explanatory variables

B = a set of parameters

Y = a dichotomous dependent variable which takes the value of "1" if the event occur and "0" otherwise

μ = The error term

In this model the dependent dichotomous variable (Y) expressed as a linear function of the explanatory variable (X). The conditional expectation of Y_i given X_i [$E(Y_i/X_i)$] interpreted as the conditional probability that the event will occur given X_i is equal to $B_1 + B_2X_i$, assuming $E(\mu_i) = 0$ and the dependent variable takes the distribution of

$Y_i = 0$ implying $\mu_i = -B_1 - B_2X_i$ and Probability = $1 - P_i$ and

$Y_i = 1$ implying $\mu_i = 1 - B_1 - B_2X_i$ and probability = P_i [Gujarati, D, 1995: 542-552; Greene, H.W, 1998: 873]. However LPM suffers from non-fulfillment of the normality assumption, hetroscedastic variance of the disturbance, non - fulfillment of $0 \leq E(Y_i/X_i) \leq 1$ and functional problem in that the marginal or incremental effect of X remains constant.

The former three Problems are surmountable in that one can manage it using different technique such as increasing the sample size to minimize non-normality, use weighted least square to

resolve heteroscedastic and use mathematical programming technique to make the mean lie in the (0-1) interval. However to solve problem the last problem, one requires to use a model which ensure.

1. A non-linear relationship between X and P I.e One which approaches zero at slower and slower rates as X gets very large and
2. As X increase, the probability also increases but never steps out side 0 - 1 interval. That is

$$\text{Lim prob (Y = 1) = 1}$$

$$B'x \rightarrow +\infty$$

$$\text{Lim prob (Y = 1) = 0 [Greene, H. W, 1993: 874].}$$

$$B'x \rightarrow -\infty$$

For these reasons this model is not selected to make the analysis in this study. To ensure point '1' and '2' discussed above, one needs cumulative distribution function (CDF). The commonly chosen CDF to represent (0 - 1) response model are the logistic and the normal model. Since both models guarantee the estimated probabilities to lie in the (0, 1) range and are non linearly related to the explanatory variables, employing either model for estimating dichotomous response variable is by far better than the conventional regression model such as OLS.

The question of which distribution to use arise the questions of whether there is any difference between the two. Basically the logistic distribution is similar to the probit except in the tails, which are considerably heavier i.e. the logistic distribution tends to give larger probabilities to $y = 0$ when $B'x$ is extremely small and smaller probabilities to $y = 0$ when $B'x$ is very large [Ibid. 875]. However, if the sample contains very few responses ($y = 1$) or very few non-response ($y = 0$), or very wide variation in an important independent variable the two model give different estimation.

Though there are practical reasons for favoring one or the other in some cases for mathematical convince, it is difficult to justify the choice of one distribution or another on the theoretical ground and in most econometric applications the probit and logit model have been used almost exclusively [Ibid. 875-876].

The dependent variable used in this study is the delinquency status (DELINQ) defined the total loan amount in arrears at the date when complete repayment was promised. $DELINQ = 0$ implies complete repayment on time and $DELINQ = 1$ implies delinquency.

The repayment function is defined as

$$\text{DELINQ} = f(\mathbf{X}, \mathbf{Z}, \mathbf{M}, \mu)$$

Where \mathbf{X} = a vector of group characteristics

\mathbf{Z} = a vector of individual characteristics

\mathbf{M} = a vector of lender characteristics

μ = The error term

Most MFIs in Ethiopia categorize loan as default based on days for which the loans are in arrears and the risk of non-repayment. The loan in arrears classified as

Watch loan - For the loan outstayed 90 days from the date of maturity

Substandard loan - For the loan outstayed from 91-180 days from the date of maturity

Doubtful loan - For the loan outstayed from 181 - 365 days from the date of maturity

Loss loans - For the loan outstayed over 365 days from the date of maturity, and in

this study these four types of arrears are considered as a default and hence are taken as

Delinquency = 1. On the other hand those loan collected before and at the maturity date are taken as repaid loan and hence Delinquency = 0.

The decision of the borrower either to repay or default depends on an unobservable utility index I that determined by an explanatory variable. The larger the values of index I , the greater the probability of the beneficiary's to repay (not to default).

$$I_i = B_1 + B_2X_i + \mu$$

Where X is a vector of explanatory variable, B 's is index function and μ is error term. For each observation there is a critical or threshold level of the index, call it I_i^* such that

$$\text{Delinquency} = 0 \text{ if } I_i \text{ exceeds } I_i^*$$

$$\text{Delinquency} = 1 \text{ if } I_i \text{ does not exceeds } I_i^*$$

Assuming the threshold I_i^* to be normally distributed with the same mean and variance, the probability of I_i^* less than or equal to I_i is equal to

$$\text{Prob}(I_i^* \leq I_i) = \text{Prob}(\text{Delinquency} = 0) = F(I_i)$$

$$I_i = F^{-1}(I_i)$$

$$= B_1 + B_2X_i + \mu$$

The rationale for analyzing the delinquency (loan repayment performance) on the base of non-observable utility index is that the borrower repays their loan if they are benefited or get utilities from repaying the loan. The subsequent higher level of loan amount can be taken as one variable, which indicates borrower utility and affect her/his repayment decision.

With the exception of the linear probability model, estimation of binary choice model is usually based on the method of maximum likelihood. The model with success probability and independent observation lead to the joint probability of

$$L = \prod_{\text{Delin} = 1} [1 - F(B'x)] \prod_{\text{Delin} = 0} F(B'x)$$

Where the first term corresponding to those observations for which delinquency is equal to one and the second term corresponding to those observations for which delinquency is equal to zero.

CHAPTER FIVE

5. Empirical analysis

5.1 Descriptive Analysis

The survey result indicated that though women clients took the loan to carry out 12 different types of businesses, high concentration of women trader observed in 3 types of activities i.e Baking and selling of 'Injera', petty trading or retailing and preparing and selling of food items. Of all sampled beneficiaries, those who engaged in the above business account 39(27.8%), 36(25.7%) and 23(16.4%) respectively. In connection with this, the average loan size taken by women beneficiaries is birr 1861 and 73(52.1%) of the respondent reported insufficiency of loan to carry out the intended purpose.

Table 5.1 Distribution of Respondent by Intended Purpose

Intended purpose	Frequency	Percent
Baking and selling of “injera”	39	27.8
Petty trading or retailing	36	25.7
Preparing and selling food items	23	16.4
Cereal and pulse trading	11	7.8
Trading of cloth/textile, second hand cloth	7	5.0
Small kiosk	6	4.2
Preparing and selling of handicraft	5	3.5
Preparing and selling of local drink	3	2.1
Selling of cultural cloth	4	2.0
To renew a house for renting	2	1.4
Mini restaurant or tea room	2	1.4
Fuel wood and charcoal selling	2	1.4

In the survey, it is indicated that 21 beneficiaries changed their business to other businesses in the consecutive rounds and 37 made a diversion to non-income generating activities. Respondents gave different reasons for the diversion. Consumption smoothing and Construction of market area / residential place were main reasons for diversion for most. The following table summarizes the diversion to non-income generating activities.

Table 5.2 Distribution of Respondent by Reasons for Diversion

Reason for diversion	Frequency	
	Number	Percent
Consumption smoothing	24	64.7
Construction of resident/ market place	11	29.7
Money hand out	2	5.4
Total	37	100

With regard to suitability of loan repayment period, 44(31.4%) of sample beneficiaries reported the unsuitability of repayment period. Disaggregating these respondents to their respective repayment period 35, 4 and 5 are with a weekly, bi-weekly and monthly repayment period. Of those beneficiaries who are against a monthly repayment period three indicated a month is too long and as the loan accumulates, it becomes a burden to repay. Shortening a repayment period to weekly and bi-weekly makes the burden to be simpler there by makes loan repayment easier as compared to the relatively larger amount required to be effective in a monthly repayment period, one said a month is still not enough to generate profit and she recommended a bi-monthly repayment period, and the remaining two said the repayment period should be flexible depending on the type of business and period of activity. On the other hand, those respondents who complained weekly or bi-weekly repayment period said that a week or 15 days are not enough to generate profit.

Table 5.3 Distribution of Respondent by Recommended Repayment Period

Installment period	Recommended repayment period					Total
	Weekly	Bi-weekly	Monthly	Bi-monthly	Should be flexible	
Weekly	-	13	22	-	-	35
Bi-weekly	-	-	4	-	-	4
Monthly	2	-	-	1	2	5
Total	2	13	26	1	2	44

Of the total beneficiary, six (4%) made repayment by selling their asset and 31(22.1%) made repayment thru borrowing from other. Among those who made repayment thru borrowing, 20(64.5 %) are those with monthly repayment period.

With regard to group lending credit modality, the survey result showed that 49 (35%) supported the modality in that it makes credit to be accessible, allows the group to share experience and help each other financially/morally. On the other hand, 91(65%) are against group guarantee. For those who are against group guarantee, being liable for the default of other and differences in character and risk behavior of people are the two main reasons indicated by 50(54.9%) and 25(27.1%) respondents respectively. The following tables summarize respondent's reason for/against group guarantee.

Table 5.4 Distribution of Respondent by Reason for Group Guarantee.

Reason	Frequency	
	Number	Percent
Sharing of experience, exchange business idea/information	22	57
Make credit to be accessible	2	44
Help each other financially/morally	28	0.4
Total	49	100

Table5.5 Distribution of Respondent by Reason Against Group Guarantee

Reason	Frequency	
	Number	Percent
Not to be liable for the default of other	50	54.9
People are with different character and risk behavior	25	27.1
Unable to get additional loan unless others settle their dept	7	7.5
Affect the incentive to work hard	5	5.4
Unable to cease unless other settle their dept	4	4.2
Total	91	100

In-group lending among other things monitoring is believed to play a significant role on repayment performance of the borrower. As a scheme makes every member of a group to be liable for any one default in the group, it creates tight monitoring among members.

Contrary to what is mentioned above, only 17(12%) and 10(7.1%) found to make monitoring always and mostly respectively while 93(66.4%) make no monitoring at all. In relation to this only 27(19%) respondents said monitoring is easy task while 44(31.4%) and 52(37.1%) of the respondent reported making any monitoring on the business activities and financial flow of other members of the group is difficult and very difficult respectively.

Supervision and follow up by the MFIs staffs are other factors that affect repayment performance. In the study, 132(94.2%) respondents stated supervision on loan utilization is useful, but 63 (45%) reported that the supervision carried out by the MFIs staffs is unsatisfactory. Looking this with respect to each MFIs 27(54%), 18(36%) and 18(45%) are respondents from ADCSI, Gasha and AVFS respectively.

5.2 Assessing the Impact of Micro finance on the Living Conditions of Women

Micro credit program makes credit to be accessible to the poorest part of the society -Women. From the financial service women derive a benefit such as the opportunity of being self-employed or expand the existing mini-business. One of the immediate impacts is on income. This induced income may have effect on other outcomes such as expenditure, saving and other welfare indicators. However, the benefits from the program participation must be at least as great as the cost of women to participate in micro-credit program. Possible benefits from the participation include induced change on the above variables. In the following section of the study the analysis on the impact of the intervention on the above variables presented.

Apart from the descriptive explanation on the selected variables for the study, Wilcoxon non-parametric sign rank test was employed to investigate if there is any statistically significant change on the variables under the study. This test is appropriate in comparative experiment when the measurements are of the "before" and "after" kind on the same experimental unit (Van Matre 1996: 616-621 cited by Zewdu T, 2000: 66-67).

Non-parametric test does not require assumption about a particular distribution to compare the variable before and after the participation in the scheme.

In order to apply the test, one must find the difference between each observed values and rank the difference in order of absolute magnitude. The rank is given starting from the smallest

magnitude and if there is no change on the variable i.e if the difference happens to be zero), the observation will be dropped and the sample size will be reduced accordingly. The actual signs of each difference then put to corresponding ranks and symbolized by T^+ or T^- depending on the alternative. If the variable Z observed before and after a certain intervention symbolized by Z_b and Z_a respectively, then the alternative hypothesis and the test statistics become

Alternative hypothesis	Test statistic
$H1: Z_a < Z_b$	T^+
$H1: Z_a > Z_b$	T^-
$H1: Z_a \neq Z_b$	Smaller of T^+ or T^-

The null hypothesis rejected if the test statistic is equal to or less than the critical value given W table. For $n > 25$ the distribution of both T^+ and T^- considered normal with mean μ_T and standard deviation σ_T defined as

$$\mu_T = n(n+1)/4$$

$$\sigma_T = \sqrt{n(n+1)(2n+1)/24}$$

So $Z = (T - \mu) / \sigma$ is the test statistic [Ibid. 67].

Impact on income

The direct effect of credit provision is creating employment opportunity hence on income. Out of the total 140 sample beneficiaries, 110(78.5%) are engaged on the same business that they had carried out before the intervention. This shows that to take risk and make a shift to other business is somewhat difficult to women under the study.

Concerning the impact on level of income, 116(82.8%) women reported increment in income arising out of intervention while 18(12.8%) reported otherwise. Saturated market due to significant number of women involvement in the same business and market problem raised by change in market area following re-construction program of city government are the two main reasons indicated by those who faced deterioration in income.

To quantify the response indicated above, Wilcoxon non-parametric sign test employed.

Let $MIBL$ is monthly average income before the loan and $MIAL$ is monthly average income after the loan. Accordingly the null and alternative hypotheses are

H_0 : Monthly average income after the loan is equal to monthly average income before the loan i.e $MIAL = MIBL$.

H1: Monthly average income after the loan is greater than monthly average income before the loan I, e $MIAL > MIBL$.

-----Wilcoxon non-parametric sign rank test

<u>MIAL – MIBL</u>	<u>Cases</u>	<u>Mean rank</u>	<u>Sum of ranks</u>
Negative rank	18 ^a	55.56	100000
Positive rank	116 ^b	69.35	804500
Ties	6 ^c		
Total	140		

a $MIAL < MIBL$.

b $MIAL > MIBL$

c $MIBL = MIAL$

Z = - 7.828 P = 0.000 (2 – tailed)

The above test result leads to the rejection of the null hypothesis at 1% significant level, indicating average monthly income after the loan is significantly greater than average monthly income before the loan. Thus, we can say that the scheme has positive impact in increasing income level of women beneficiaries.

Impact on saving

Saving is another variable assessed to evaluate the impact of the scheme on clients. Of the two types of saving, voluntary saving is considered in this study because this type of saving is that which depends on the interest of a particular individual either to save or not, or to withdraw at any time when the need arise.

Women clients asked if they had a saving account before the intervention and 61(43.5%) reported the existence of an account while 79 (56.4%) said they had no account. After the intervention, those with voluntary saving account reached 106(75.7%) while 34(24.3%) remained without a voluntary saving account. A lot of expenditure covered by the borrowers was the main reason indicated by the beneficiaries. The following table summarizes reasons given by the respondents.

Table 5.6 Distribution of Respondent with Reasons not to have Voluntary Saving

Reason	Frequency	
	Number	Percent
Lot expenditure to cover	18	52.9
Low level of income	8	23.5
Do not trust MFIs	6	17.6
To small interest rate	1	2.9
Do not have a habit of saving	1	2.9

To quantify the impact on saving account, i.e improvement in voluntary saving account of women, Wilcoxon non- parametric sign rank test is employed.

Let VSABL is voluntary saving account before the loan and VSAAL is voluntary saving account after the loan. Accordingly the null and alternative hypotheses are

H_0 : Voluntary saving account before the loan is equal to than voluntary saving account after the loan I,e $VSABL = VSAAL$

H_1 : Voluntary saving account before the loan is greater than voluntary saving account after the loan I,e $VSABL > VSAAL$

-----Wilcoxon non-parametric signed- rank test

<u>VSAAL - VSABL</u>	<u>N</u>	<u>Mean rank</u>	<u>Sum of ranks</u>
Negative rank	41 ^a	65.45	2682.00
Positive rank	73 ^b	53.05	3873.00
Ties	26 ^c		
Total	140		

a $VSAAL < VSABL$

b $VSAAL > VSABL$

c $VSAAL = VSABL$

$Z = - 1.684$ $P = 0.092$ (2 – tailed)

The outcome of the test result leads to rejection of the null hypothesis at 10% level of significant. Therefore we can conclude that the scheme contributes to the saving accounts of women even though the period of comparison before and after the intervention is not the same.

This is to say, the saving account before the intervention expected to cover large periods compared to the saving period after the intervention, which is a maximum of 6 years.

With regard to compulsory saving that the client must have, 130 respondents said compulsory saving is useful while 10 are against it. The lowest probability of collecting the saving at the end of the scheme as it can be used by the MFI to settle the debt of other member in the group was the reason given by all who are against compulsory saving. Those who support compulsory saving gave three reasons. Eighty-two (63%) said that the scheme enables one to have accumulated balance at the end, 34(26.2%) said it helps to settle the debt in case of business failurity and 14(10.8%) indicated its contribution to the saving habit of the borrower.

Table- 5.7 Distribution of Respondents by Reason to Support Compulsory Saving

Reason	Frequency	
	Number	Percent
It enables one to have accumulated balance at the end of credit scheme	82	63.0
It help to settle the debt if it becomes impossible to repay back	34	26.2
It teaches a habit of saving	14	10.8
Total	130	100

Impact on Consumption expenditure and diet

The other impact of credit scheme is on consumption. The direct and immediate impact of credit expected to have impact on another variable like consumption expenditure.

Analyzing consumption expenditure and diet also justified in that among other factors, one of the causes of highest maternal mortality prevails in the country is malnutrition. Even though one cannot conclude on the nutritional status of women from the pattern of consumption expenditure of a household alone, it can enable women to improve their nutritional status. Accordingly, on the study at hand respondent that enjoyed increment in consumption expenditure 107(76.4%) asked whether the increase in consumption expenditure is a result of increase in income. In

addition, they also interviewed whether the improvement in capacity to spend more improves their nutritional status. The following table summarizes their response.

Table 5.8 Distribution of Respondent by Improvement in Consumption Expenditure and Nutritional Status.

	Frequency		Total
	Yes	No	
Does the increase in income lead to increase in consumption expenditure	79	28	107
Does the improvement to spend more lead to improvement in nutritional status	74	5	79

From the table, one can see that of the total sample beneficiaries 79(73.8%) enjoyed increase in consumption expenditure arise from increase in income of the business financed by loan, and of these 74(94.6%) enjoyed improvement in nutritional status. The remaining 28 respondents with high consumption expenditure than before attach the increase in consumption expenditure to increased family size and a relatively higher price of inputs.

To quantify the change in consumption expenditure, Wilcoxon sign rank test employed

Let MCEBL is monthly average consumption expenditure before the loan and MCEAL is monthly average consumption expenditure after the loan. Accordingly the null and alternative hypotheses are

H_0 : Monthly average consumption expenditure after the loan is equal to Monthly average consumption expenditure before the loan I,e $MCEAL = MCEBL$

H_1 : Monthly average consumption expenditure after the loan is greater than Monthly average consumption expenditure before the loan that is $MCEAL > MCEBL$.

-----Wilcoxon signed rank test

<u>MCEAL – MCEBL</u>	<u>N</u>	<u>Mean rank</u>	<u>Sum of rank</u>
Negative rank	17 ^a	60.74	1032.50
Positive rank	107 ^b	62.78	6717.5
Ties	16 ^c		
Total	140		

a MCEAL < MCEBL

b MCEAL > MCEBL

c MCEBL = MCEAL

Z = - 7.107

P = 0.000 (2 – tailed)

From the test result, we can reject the null hypothesis at 1% level of significance. The intervention of the program, therefore, does contribute to consumption expenditure of women.

Impact on educational expenditure

The other variable analysed in this study to assess the impact of credit scheme is expenditure on education. Of the total respondents, 114(81.4%) beneficiaries faced constraints either to continue their education or to enable their children or dependents to continue or both. Respondent gave different reasons for this. Low level of income and handling many responsibilities were the two main reasons indicated by 38(33.3%) and 27(23.7%) respondents respectively. The following table summarizes these.

Table 5.9 Distribution of Respondent by Reason for Unable to Continue/ Enable children or dependents or both/ Education

Reason	Frequency	
	Number	Percent
Low level of income	38	33.3
Handling many responsibilities.	27	23.7
Illness	17	14.9
Lack of interest	17	14.9
High price requested by educational institution	12	10.6
Shortage of educational facility	3	2.6
Total	114	100

With regard to change in educational expenditure, 47(34.8%) reported the increment in expenditure while 41(30.37%) reported reduction and 47(34.8%) reported no change in

educational expenditure. In this study the number of women who are sending their children or dependents are 135. To quantify the change Wilcoxon sign rank test employed.

Let EEBL is average annual educational expenditure before the loan and EEAL is average annual educational expenditure after the loan. Accordingly the null and alternative hypotheses are

H_0 : Average annual educational expenditure after the loan is equal to average annual educational expenditure before the loan I,e $EEAL = EEBL$.

H_1 : Average annual educational expenditure after the loan is greater than average annual educational expenditure before the loan I,e $EEAL > EEBL$

-----Wilcoxon sign rank test

<u>EEAL – EEBL</u>	<u>N</u>	<u>Mean rank</u>	<u>Sum of rank</u>
Negative rank	41 ^a	43.51	1784.00
Positive rank	47 ^b	45.36	2132.00
Ties	47 ^c		
Total	135		

a $EEAL < EEBL$

b $EEAL > EEBL$

c $EEBL = EEAL$

$Z = - 0.724$

$P = 0.469$ (2 – tailed)

From the test result, one cannot reject the null hypothesis, implying the scheme does not bring a change on educational expenditure of women.

Impact on asset

The other impact indicator of the program on beneficiaries is the value of asset owned by women beneficiaries. The study shows that 50(35.7%) women enjoyed in acquiring additional assets due to the program intervention. This shows as women get more income they tend to use part of it to acquire asset and improve their ownership status in the household. This also implies as women empowered economically they tend to benefit the household instead of spending the whole income on them.

To quantify the response indicated above i,e change in asset ownership of women Wilcoxon sign rank test used.

Let TABL is total asset value before the loan and TAAL is total asset value after the loan. Accordingly the null and alternative hypotheses are

H_0 : Total asset value after the loan is equal to total asset value before the loan I,e $TAAL = TABL$

H_1 : Total asset value after the loan is greater than total asset value before the loan I,e $TAAL > TABL$

-----Wicoxon sign rank test

<u>TAAL – TABL</u>	<u>N</u>	<u>Mean rank</u>	<u>Sum of rank</u>
Negative rank	0 ^a	0.00	0.00
Positive rank	50 ^b	25.00	1275.00
Ties	90 ^c		
Total	140		

aTAAL < TABL

bTAAL > TABL

cTAAL = TABL

Z = - 6.156

P = 0.000 (2 – tailed)

The outcome of the test result leads to rejection of the null hypothesis at 1% level of significant. Therefore, we can conclude that the scheme contributes to asset acquisition of women even though the period of comparison before and after the intervention is not the same. This is to say, the asset acquired by women before the intervention expected to cover large periods compared to the additional asset acquired by women after the intervention, which is a maximum of 6 years.

Impact on improvement of housing or repair

The other variable assessed to study the impact of credit on the living conditions of women is impact on improvement of housing or repair. Respondents asked if they made any improvement on housing or repair and their reply witnesses improvement made by them. The following table summarizes the type of improvement.

Table 5.10 Distribution of Respondent by type of Housing Improvement/Repairs

Improvement / repair	Frequency	
	Number	Percent
Housing repair	52	51.4
Install electricity	11	10.8
Install telephone line.	11	10.8
Housing expansion	10	9.9
Improvement in water system	10	9.9
Improvement in sanitation	7	6.9

From the table we can read that the major type of improvement made by women is housing repair (51.4%) followed by installation of electricity and telephone line (10.8%) each. So credit provision enables women to generate more income to spend on better facilities that improve the living standard of the household. As indicated above on impact on asset acquisition part, as women earn more money they spend part of it on household, and hence their ability to generate income benefits not only themselves but the whole family too.

Impact on women empowerment

Provision of credit may play a role in transforming the economic, social and cultural conditions of a given society. Change in economic, social and cultural conditions can be expressed among other things in terms of empowerment.

Women empowerment refers to gain in access to and control over resources, control over decision-making and rise in consciousness and motivation. These further categorized in three areas of empowerment-economic, social and personal. The study hence covers these three areas.

Women economic empowerment

Women participation in the program contributes substantially to improvement in income. The increment in income of women in turn enables them to provide for the needs of their families or even become sole bearer of household expenditure there by improves their relative position in the household.

Women participation also enables them to gain ownership over asset they bought from loan proceed. In this study, we have seen that 50(35.7%) enjoyed in acquisition of additional assets so the scheme plays a role to improve ownership position of women.

Contribution of loan to saving is the other area of women economic empowerment. As indicated above, credit enabled 106(75.7%) of the beneficiaries to have a saving account voluntarily. Women with saving account were only 61(43.5%) before the intervention.

Saving helps women to cope temporary difficulties or crisis. It can enable them either meet economic uncertainty or re-invest. This in turn can build confidence for these women. In the study, significant number of women 130(92%) found to support compulsory saving because it enables them to have accumulated balance at the end.

Women social empowerment

With regard to social empowerment, decision-making role of women in the family and in the community analysed.

Women control over decision-making is looked from large number of household matter that need decision. In this study those decisions related to expenditure on food and health care are considered.

Concerning expenditure decision on food consumption before the intervention, 57(40.7%) women were making decision in collaboration with other family members. After the intervention, this number reduced to 42(32.2%) while decision making by the beneficiaries themselves increased from 53 to 89.

Table 5.11. Distribution of Respondent by Decision Making Before and After the Loan Provision

Decision maker	Before the loan		After the loan	
	Frequency	Percentage	Frequency	Percentage
Myself	53	37.8	89	63.5
Other family member	30	21.4	6	4.2
Myself and other family member	57	40.7	47	32.2
Total	140	100	140	100

With regard to decision on health care expenditure, women who were treated based on free of charge before the intervention are still get the service freely, but those who were covering the treatment by themselves increased from 34(24.2%) to 48 (34.3%).

Table 5.12. Distribution of Respondent by Decision Making on Health Care

Decision maker	Before the loan		After the loan	
	Frequency	Percentage	Frequency	Percentage
Myself	34	37.8	48	34.3
Other family member	31	21.4	17	12.1
Myself and other family member	16	40.7	15	10.7
Free of charge	49	35.0	45	32.1
Myself and free of charge	10	7.1	14	10.0
Total	140	100	140	100

The above results confirm that decision role of women on household matters concerning food and health care expenditure improved.

Women involvements in group formation and participation in training and skill upgrading are other areas of women social empowerment. In the study, almost all women groups formed on self-selection base and 121(86.4%) women given training (orientation) on business and marketing, saving and credit and book keep and recording by MFIs.

Women personal empowerment

With regard to personal empowerment, even though there was no direct interview made to identify the self-esteem and satisfaction women achieved due to the intervention, one can expect the increment in income, saving, asset ownership and decision-making in the household community and on the business they are running empower women personally.

Group based credit delivery modality creates the opportunity for women to come together and discuss their problems, share experiences and exchange business information or ideas. However, this study found that 46(32.2%) has no formal meeting, 32 (22.8%) meet only to give or collect the money 18 (12.8%) do not meet at all and 3(2.1%) meet only when they face problem. The following table shows these with their respective MFIs.

Table 5.13 Distribution of Respondent by Frequency of Meeting

MFI	Frequencies of meeting				Total
	No formal meeting	No meeting at all	Only to give or collect money	Only when we face a problem	
ADCSI	15	5	7	1	28
Gasha	17	3	17	-	37
AVFS	14	10	8	2	34
Total	46	18	32	3	99

As indicated above 99(70.75) women could not benefit from the group meeting since either they do not have meeting or those who meet are only when they face problem or not formally or only to collect or give money. This can affect women empowerment and needs due consideration.

5.3. Estimation of the Model and Analysis of the Result

5.3.1 Characteristics of the variables

It is better to see the characteristics of the variables briefly before we go to estimation of the model. Accordingly, table 5.3.1 shows us the minimum, maximum, mean and standard deviation of each variable, so that it can help to have information on the nature of the variables used to make the analysis on repayment performance of women borrowers.

Table- 5.3.1. Summary Statistics of the Variable

Variable	Min	Max	Mean	Standard deviation
Age	18	65	39	10.49
Educational level	1	12 ⁺	1-6	1.25
Number of dependent	2	13	6	2.24
Frequency of loan	1	7	2	1.58
Total business income	50	9000	781	1142.8
Total off-business income	0	3000	198	348.34
Total expenditure	63	825	298	148
Group size	3	20	4	2.18
Group formation	0	1	0.90	0.29
Group relation	0	1	0.24	0.43
Asset	0	11900	2520	2490
Loan rationing	0	133	7.8	18.17
Loan amount /in birr/	200	7000	1861	1099
Suitability of loan repayment period	0	1	0.71	0.45
Loan supervision	0	1	0.55	0.49
Delinquency	-	-	0.20	0.40

Note **Min*** = Minimum; **Max*** = Maximum

Min of '1' under educational level = Illiterate

Of the total 140 sampled beneficiaries, 111 women borrower repaid the loan fully where as the remaining 29 are in arrears I,e are with loan outstayed from the date of maturity. The delinquency mean of the borrower is 20 percent.

With regard to age, the majority of the beneficiaries are with the age of 39. The lowest age of the beneficiaries is 18 and the highest is 65. Concerning the educational attainment of respondents, most are at the lower educational level in that most fall in the grade range of 1 – 6. The average loan size is 1861 birr and the mean for frequency of loan is 2, implying second round. In relation to this, 39 borrowers rationed in that they received the amount less than they applied. The average percentage of rationing is 7.8.

The mean monthly business income, monthly off-business income, mean monthly total expenditure and the mean value of asset owned by the borrower are 781, 198, 298 and 2520 birr respectively.

With regard to group size, the minimum size is 3 and the maximum is 20 with the mean size of 4. The variables group formation, group relation, loan rationing and suitability of loan repayment period are dummy variables which take the value of "0" and "1".

5.3.2 Regression Result and Analysis

Of the total seven variables listed under individual characteristics to study the repayment performance of women borrowers, age of women and frequency of loan taken by them are two variables which affect repayment performance significantly I, e at 5% and 1% level of significance respectively. In this study, age is related negatively with repayment performance. The explanation for this can be as people get older, their ability to generate income decline, which in turn affect repayment performance. On the other hand, frequency of loan related positively with repayment performance. This indicates as borrower took loan frequently, they get experience in their business activity and strengthen their ties with the MFIs and group members, which in turn facilitate repayment of loan.

Although much is said in the literature on the variables such as beneficiaries attitude toward loan repayment and perceived cost of default to affect the repayment performance of the borrower, these variables are not used to make the analysis as they have constant values across the borrowers.

Table 5.3.2. Maximum likelihood Estimates of the Binomial Probit Model for the Loan Repayment Performance

Variables	Coefficient	Z-Value	P-Value
Individual characteristics			
Age	0.045	2.4	0.016**
Educational level	0.111	0.68	0.497
Number of dependent	-0.128	-1.5	0.133
Frequency of loan	-0.455	-2.83	0.005***
Total business income	-0.006	-1.39	0.165
Total off-business income	-0.001	-0.28	0.783
Total expenditure	0.001	0.06	0.955
Group characteristics			
Group size	0.122	1072	0.086*
Group relation	0.0781	0.21	0.837
Group formation	0.839	1.35	0.178
Asset	-0.001	-1.11	0.267
Lender characteristics			
Loan rationing	0.036	3.16	0.002***
Suitability of loan repayment	0.001	1.43	0.154
Loan supervision	-0.692	-2.13	0.003***
Loan amount	0.0027	1.43	0.154
Constant	-2.027	-1.67	0.095*
Log likelihood	-45.84		
Restricted log likelihood	-71.42		
Chi 2 (16)	51.15		
Pseudo R ²	0.35		
Number of observation	140		

Note *** - Significance at 1%

** - Significance at 5%

* - Significance at 10%

Other variables under individual characteristics such as number of dependents each borrower has, total business income and total off-business income affect repayment positively while education level of the borrower and total expenditure covered by the borrower affect repayment negatively although all these variables are insignificant.

With regard to group characteristics, group size affects repayment positively and is significant at 10% level of significance. The bigger the group the more imperfect is flows of information among members and affects monitoring and enforcement, which in turn affects repayment negatively.

The remaining variables such as group relation, group formation and asset owned by the borrowers are all insignificant, and the former two affect repayment positively while the latter affect negatively.

Loan rationing and loan supervision under lender characteristic influence repayment highly I,e at 1% level of significance each. Loan rationing made by the borrower affects the repayment performance negatively. Rationing, therefore, in this study implies higher level of unfulfilled credit demand, which limit income-generating capacity of the borrower, which in turn affects repayment.

Loan supervision undertaken by the MFIs affects repayment positively. Continuous follow up and supervision visit by MFIs to evaluate the loan utilization plays a role in reducing delinquency or improve repayment performance of the borrower. The remaining variable under lender characteristics I.e. suitability of loan repayment is insignificant in affecting loan repayment, and has unexpected sign.

As we have seen in the suitability of loan repayment period discussion, although 44 beneficiaries reported unsuitability of the period, 37 of them able to fulfill timely repayment obligation in that 36 of them borrow from other and the remaining 6 sell their asset. This situation makes the sign not to be reflected on the regression analysis of repayment performance.

Comparing these findings of the study with similar findings in Ethiopia, Zewdu 1999 in his analysis on loan repayment performance of beneficiaries both in urban and rural areas of Tigray, found total business income, total off - business income and loan supervision to be related positively with repayment performance and are similar to the findings of the study at hand. In addition Gudisa's study of 2000 on women fuel wood carriers in Addis Ababa found the

variables age, educational level and loan amount to be related negatively while variables frequency of loan and loan supervision to be related positively with repayment performance. These results again are similar to the results of the study at hand.

CHAPTER SIX

6. Conclusion and policy Implication

6.1. Conclusion

Micro credit program is currently being promoted as a key strategy for simultaneously addressing both poverty alleviation and women's empowerment. Credit enables to address various aspects of poverty and inequality that women experienced.

The immediate impact of credit program reflects on employment and consequently increases in income. The induced income and employment affect other outcome such as consumption, education, asset acquisition, household net worth and so on. Accordingly the most effective tool for assessing the benefit of micro credit program as measurement of its impact on poor is in its impact on of employment, income, consumption, asset, net worth and children schooling.

All the three MFIs, the subject bases of this study, the target active poor. More than half percent of women women involved in the schemes are engaged in petty trading and baking and selling of '*injera*' Therefore, the schemes do not create alternative employment other than the traditional areas of employment. However it helps those who engage in different income generating activities to enjoy from increment in income (82.8%). This induced impact affects other variables such as consumption expenditure and diet, asset ownership, net worth (improvement of housing/repair). Of the total sample beneficiaries 107 (76.4%) experienced increment in consumption expenditure and of these 79 (73.8%) confirm the increment in consumption expenditure arising from increment in income. Besides, 74 (94.6%) enjoy improvement in nutritional status.

The study also shows that 50 (35.7%) women enjoyed in acquiring additional asset and in relation to this varied of improvements or most women carried out repairs.

The contribution the scheme to the improvement of education and health status is limited. Of the total, 114 (81.4%) beneficiaries faced constraint either to continue their education or to send their children or dependents to school or both. With regard to health care women who relied on free service for health treatment before the intervention were 49 and after the intervention 45 are still getting treatment on free of charge basis.

Provision of credit played a role to some extent in transforming the economic and social conditions of women under the study. Women participation in the program contributes substantially to improvement in income and induced variables, which are indicated above.

These in turn contributes to empowerment of women to some extent in that it enables them to have access to and control over resources, control over decision making and increased consciousness and motivation.

It is essential to have better loan repayment performance side by side with improvement in the living conditions of beneficiaries. For this, examining factors that affect loan repayment performance is equally important.

In this study, 15 variables under three broad characteristics i.e. individual, group and lender are identified and analyzed. The result shows age of the beneficiaries and frequency of loan taken by women beneficiaries under individual characteristics, group size under group characteristics and loan rationing and loan supervision under lender characteristics are found to significantly affect the repayment performance of the beneficiaries.

Concerning the direction of the variables, age of women borrower, group size and loan rationing affect repayment negatively while frequency of loan taken by women and loan supervision by the MFIs repayment affect positively. The entire variables are with the prior expected sign except the variable suitability of loan repayment period. This is because even though 44 (31.4%) of sample beneficiaries reported the unsuitability repayment period, 6(4%) women beneficiaries made repayment through selling of their asset and 31(22.1%) thru borrowing from other. These conditions made the consequence of unsuitability repayment period not to be reflected on repayment performance of the beneficiaries in the study.

6.2. Policy implication

Women clients in the study engaged mostly in income generating activities that they used to carry out before the intervention. Besides most are concentrated in the same type of business activities even though this becomes the main problem for those who failed to meet regular repayment obligation. They prefer less risky activities and earn low return to risky but high return business. This is due to the multiple responsibilities that women must meet on one hand and lack of market skill and business idea on the other hand. Much effort is expected from MFIs in this area. MFIs have to work with other organizations (governmental or non governmental) for reaching women with appropriate non-financial support. Besides training to staff can also resolve some related problems which do not require an expert.

Appropriate implementation of credit modality is also believed to tackle these problems. In this modality every member in the group is liable for any member default in a group. Moreover

additional credit is accessible only if the debt as a group is settled. This calls women to come together and discuss on their problem and exchange business idea. MFIs therefore should not ignore this and focus only on the repayment obligation of the clients, as it is found in the study. It should encourage women to come to loan disbursement and collection meetings. Apart from solving business problems, discussing and sharing experience play a role in empowering women. Besides, as women weight benefit of group lending over its cost, the benefit that women can gain through meeting can change their negative attitude toward this credit modality. As regard to the determinants of loan repayment performance age of the beneficiaries, frequency of loan, group size and loan rationing by the MFIs are factors that need to be considered in designing a strategy for effective loan recovery by the MFIs.

The study shows unsatisfactory performance of MFIs in relation to supervision and follow- up even though slight variation is observed across the three MFIs. Though this variable is insignificant in affecting repayment, MFIs should have close contact with their clients to avoid any inconvenience.

With regard to repayment period even though here again the variable is insignificant and also with unexpected sign due to cross financing by women beneficiaries, the repayment period must be suitable to borrower women. Besides it should be flexible. In relation to this, MFIs must give a 'rest' time to women who are forced to change their market area or forced to construct their market place as part of re-construction program undertaken by city government.

Lastly, even though making the process of group formation more endogenous to members themselves can minimize information asymmetry and improve repayment, as potential members are in a better position to screen and select those who resemble them. This can make credit still to be inaccessible to the poorest women even though the main purpose of group lending is to reach these women through social collateral technique.

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Acronyms

ADCSI	- Addis Credit and Saving Institution
AVFI	- Africa Village Financial Service
CSA	- Central Statistical Authority
DRI	- Differential Rate of Interest
ILO	- International Labor Organization
LPM	- Linear Probability Model
MFI	- Micro Finance Institution
NBE	- National Bank of Ethiopia
NGO	- Non-Governmental Organization
OPM	- Office of Prime Minister
SPSS	- Statistical Package for Social Science
WAO	- Women's Affair Office
UNECA	- United Nation Economic Commission for Africa

Appendix A

Questioner for the survey on "The impact of Group-Based Income Generating Project on the Living Condition of Women: Case study of MFIs in Addis Ababa"

Name of MFI-----
 Name of branch-----
 Name of sub-branch-----

Interviewer's Name-----
 Date of the interview-----

Section 1 Demographic Information.

1.1 Name -----

1.2 Age -----

1.3 Educational level of the borrower

1. Illiterate-----
2. Grade 1-6-----
3. Grade 6-8-----
4. Grade 8-12-----
5. 12 Complete-----

1.4 How many persons are there in your household?-----

Section 2 Information on loan and repayment

2.1 When did you first borrow from the MFIs? Year-----

2.2 How many times did you take loan from MFI in each rounds of loan since then?

Round	Year	Number of time loan taken	Amount of loan requested (birr)	Amount of loan received (birr)	Intended purpose
First round					
Second round					
Third round					
Fourth round					
Total					

2.3 Have you repaid the total loan agreed in the loan contract? 1. Yes 2. No

2.4 If yes, state the total amount that you have repaid.....

2.5 If no, state the total balance left unpaid and the reason for its non-repayment

No	Round	Amount in Birr	Reason
1	First round		
2	Second round		
3	Third round		
4	Fourth round		
	Total		

2.6 If you pay interest for the loan, what is the rate per annum?-----

2.7 Was the loan sufficient to under take your intended purpose?

1. Yes 2. No

2.8 Did you spend the entire loan on purposes specified in the agreement?

1. Yes 2. No

2.9 If no state those non-intended purpose and amount spent on them

No	Non- intended purpose	Amount in birr
1		
2		
3		
4		
Total		

2.10 What factor led you to spend all or part of the loan on this/ these/ non-intended purpose?

No	Non-intended purpose	Factor
1		
2		
3		
4		

2.11 what was the repayment installment period for each rounds of loan?

No	Rounds	Installment period
1	First round	
2	Second round	
3	Third round	
4	Fourth round	

2.12 Was the repayment installment period suitable to perform your loan repayment?
1. Yes----- 2. No-----

2.13 If no, mention the reason and recommend the suitable repayment period
Reason-----

Recommendation-----

2.14 Do you perceive the cost of default to be high?
1 Yes 2 No

2.15 If yes to which cost of default do you give emphasis? / Put in order of importance/
1 Loss of collateral offered
2 Loss of future access to credit
3 Loss of reputation
4 Social sanction

2.16 Have you ever been forced to sale assets to pay MFIs loan?
1 Yes 2 No

2.17 Did you borrow to repay MFIs loan?
1 Yes 2 No

Section 3 Monitoring and supervision

3.1 How many members does your group have?-----

3.2 What is the relation of members to you?
1 Neighbors 2 Friends 3 Relatives 4 Other/Specify/-----

3.3 Who took the initiation in the group formation?
1 myself 2. Others

3.4 If MFIs and "Kebele" staffs handled the group formation, how easy was it for you to join a group?
1 Very easy 2 Easy 3 Relatively easy
4 Relatively difficult 5 Difficult 6 Very difficult

3.5 Do you and some others member/s of your group own a business jointly?
1 Yes 2 No

3.6 If yes, how easy was it for you to work jointly?
1 Very easy 2 Easy 3 Relatively easy
4 Relatively difficult 5 Difficult 6 Very difficult

3.7 How frequently does your group normally meet?
1 Weekly 2 Bi weekly 3 Monthly 4 Other /specify-----

3.8 Do you think it is necessary and appropriate to meet so frequently?
1 Yes 2 No

3.9 If yes, why?-----

3.10 If no, why not?-----

3.11 Do you find the group meeting useful?
1 Yes 2 No

3.12 If yes what are the main advantages you get?
1-----
2-----
3-----

3.13 How regularly do you attend the meeting?
1 Always 2 mostly 3 Frequently
4 Some times 5 Seldom 6 Never

3.14 In practice, does your group always have to approve the purpose for which group members borrow?
1 Yes 2 No

3.15 Were there cases of disapproval in your group due to unacceptability of the purpose?[Obj-2]
1 Yes 2 No

3.16 If yes, how many cases approximately?----- ?

3.17 How often do you monitor whether members of your group use the loans for intended purpose/s?
1 Always 2 mostly 3 Frequently
4 Some times 5 Seldom 6 Never

3.18 How easy is it for you to monitor loan utilization of members?
1 Very easy 2 Easy 3 Relatively easy
4 Relatively difficult 5 Difficult 6 Very difficult

3.19 How often do you think diversion/ full or partial/ occurs in general?
1 Always 2 mostly 3 Frequently
4 Some times 5 Seldom 6 Never

3.20 How many cases of diversion have been detected in your group since you joined the group?-----

3.21 Do you think the group requirement is really necessary?

1 Yes 2 No

3.22 If yes explain why?-----

3.23 If no, explain why not?-----

3.24 How regularly do MFI staffs supervise your loan utilization?

1 Weekly 2 Bi-weekly 3 Monthly
4 Bi monthly 5 Semi- annually 6 Annually
7 Other/ Specify-----

3.25 Do you think supervision of the loan utilization is useful?

1 Yes 2 No

3.26 In your opinion, how satisfactory is the supervision of loan utilization by MFIs staff?

1 Satisfactory 3 Moderately satisfactory 3 Unsatisfactory

3.29 How regularly do MFI staff follow-up and remind you about timely repayment of your loans?

1 Weekly 2 Bi-weekly 3 Monthly
4 Bi monthly 5 Semi- annually 6 Annually
7 Other/ Specify-----

3. 28 Do you think reminding of repayment loan is useful?

1 Yes 2 No

Section 4 Training

4.1 Have you been given any kind of training by the MFI before the loan is provided to you?

1 Yes 2 No

4.2 If yes, specify the kind of training given to you?

1 Business And Marketing training 2 Saving and credit training
3 Book-keeping and record training 4 Other/ specify-----

4.3 Do you think that the training given to you has helped to increase your income?

1 Yes 2 No

Section 5 Income, Asset and Wealth

5.1 Did you have any source of income for your family before the loan?

1 Yes 2 No

5.2 If yes, state the source/s and the average level of income you get per month.

No	Source of income	Level of income in birr
1		
2		
3		
4		

5.3 What is the average monthly income of your business financed by the loan?-----

5.4 Do you have other source of income after you have got access to the loan?
 1 Yes 2 No

5.5 If yes, specify the source/s and the average level of income?

No	Source of income	Level of income in birr
1		
2		
3		
4		

5.6 Did you have any assets before you got access to the loan?
 1 Yes 2 No

5.7 If yes, specify the estimated value of your assets?

No	Item	Amount owned	Average value
1			
2			
3			
4			
5			
6			
7			
8			
9			

5.8 What are the estimated values of your asset after the loan?

No	Item	Additional Amount owned	Average value
1			
2			
3			
4			
5			
6			
7			
8			
9			

5.9 Did you make any major improvements, repairs or additions made to your housing?

1 Yes 2 No

5.10 If yes indicate the type of improvement.

No	Type of improvement	Estimated value
1	Housing repair	
2	Housing expansion	
3	Improved water system	
4	Improved sanitation	
5	Installed electricity	
6	Other/Specify	

5.11 How much was the estimated monthly consumption expenditure of your household before the loan?-----

5.12 Who was the bearer of consumption expenditure before you got access to the loan?

1 Myself 2 Other family members 3 Myself and other family members
4 Relatives Other/ specify-----

5.13 How much money does your household spend per month for consumption purpose after the loan is advanced to you? -----

5.14 Who covers consumption expenditure after you have got access to the credit scheme?

1 Myself 2 Other family members 3 Myself and other family members
4 Relatives Other/ specify-----

5.15 If there is increase in consumption expenditure of your household is it associated with a rise in income from business financed by the loan?

1 Yes 2 No

5.16 If yes, do you think that the nutritional status of your family has improved after you get access to the loan?

1 Yes 2 No

Section 6 Information on education and Medical expenditure

6.1 If you have children or other dependent that are a child, how many of them have access to education?

Before the loan	After the loan

6.2 How much is your annual household expenditure on education?

Before the loan	After the loan

6.3 If you/your children were a school dropout, are they able to continue education after the loan

1 Yes 2 No

6.4 If you/your children were grade 12 complete, are you/your children able to continue further after the loan?

1 Yes 2 No

6.5 If no, would you indicate the major reason?

1 Shortage of educational facility

3 The high price required by educational institutions

3 Low level of income

4 Other/Specify-----

6.6 Did your family and yourself have access to public health service before participation in the credit scheme?

1 Yes 2 No

6.7 If yes, who covered your household's medical expenditure?-----

6.8 Do your family and yourself have access to public health facilities after the loan?

1 Yes 2 No

6.9 If yes, who pays your medical expenditure?-----

6.10 Did your family and yourself have access to private medical service before the loan?

1 Yes 2 No

6.11 Do your family and yourself have access to private medical service after the loan?
1 Yes 2 No

6.12 How much money did you spend on average in a year for your and your family's medical expenditure before you got access to the loan?-----

6.13 How much money do you spend on average in a year for your and your family's medical expenditure after you get access to the loan?-----

6.14 Is there any improvement in your and your family access to medical facilities after your participation in the credit scheme?
1 Yes 2 No

6.15 If no, indicate the main reason
1 Shortage of medical facilities
2 higher price requested by medical facilities
3 low level of income
4 other/specify-----

Section 7 Information on Saving

7.1 Did you have a saving account before your participation in the credit scheme?
1 Yes 2 No

7.2 If yes, what was your estimated monthly saving?-----

7.3 Do you have a saving account after your participation in the credit scheme?
1 Yes 2 No

7.4 If yes, specify the type and amount of saving

No	Type of Saving	Amount of saving
1	Compulsory	
2	Voluntary	
	Total	

7.5 Do you think the compulsory saving requirement is useful?
1 Yes 2 No

7.6 If yes, explain why?-----

7.7 If no explain why not? -----

7.8 If you do not have voluntary saving with the MFIs, what is/are the reason/s?

1. Too small interest rate
2. Do not trust the MFIs
3. Other/specify-----

Appendix B

Name of Microfinance Institution-----

Years of Establishment and Areas of Operation

Year licensed as MFI-----

Licensed to operate in

Addis Ababa-----

Nationwide-----

Other-----

Main objective of AVFS-----

Number of Branch-----

Number of Sub-branch-----

Remark-----

2. Ownership Structure

Paid-up Capital amount (in million birr)-----

NGO (%)-----

Private Organization (%)-----

Regional Government (%)-----

Association (%)-----

Individuals (%)-----

Remark-----

3. Target Group, Credit modality and Approach

Target group

Poorest of Poor-----

Active poor-----

Number of women groups under the study area (Addis Ababa)-----

Of the total client, % of women client that should be (at least)-----

Credit Modality

Group lending-----

Individual lending-----

Other-----

Credit Approach

Minimalist-----

Credit plus-----

Credit plus plus-----

Credit facility

Regular loan-----

Agricultural loan-----

Other-----

Remark-----

4. Loan Product

Sort term-----

Long term-----

Other-----

5. The amount of loan and Loan provision

Maximum loan amount-----

Minimum loan amount-----

Indicate the procedure of loan provision-----

6. Installment Period and Interest Rate

Installment Period

Monthly-----

Bi-Weekly-----

Weekly-----

Other-----

Interest Rate

Lending Interest Rate per annum-----

Interest rate on saving per annum-----

Remark-----

7. Saving Product and mobilization

Compulsory saving

Types of compulsory saving

Group saving-----

Center saving-----

Personal saving-----

Amount deductible at loan disbursement (%)-----

Subsequent amount deductible at the repayment day from each type of
saving in birr-----

Other-----

Voluntary Saving

From the client/borrower-----

From non client/ non borrower-----

From both-----

Remark-----

8. Group Identification, Screening and Formation

Group identification

" Idir"-----

"Kebele" and Elders-----

MFI Staff-----

Other -----

Group Screening

" Idir"-----

"Kebele" and Elders-----

MFI Staff-----

Other-----

Group Formation

" Idir"-----

"Kebele" and Elders-----

MFI Staff-----

Self selection-----

Other-----

Declaration

I, the undersigned, declare that this thesis is my original work and has not been presented for a degree in any other university, and that all source of materials used for the thesis have been duly acknowledged.

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