The Effect of Group Loan on the Income level of Borrowers; a case study on the customers of ACSI in East Gojjam Zone

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Abstract

The primary objective of the study was to investigate the effects of group loan on the income of the borrowers. The study has been done in east Gojjam zone on the group loan customers of ACSI; the study was used six sample branches from six different woredas to collect data from the respondents. In this study OLS regression has been used to investigate the effect of group loan amount on the income of the borrowers and the study found out that amount of credit took through group loan program significantly and positively affected the income of the borrowers.

Key words: Group Loan, Income level, Micro Finance, ACSI

1. Introduction

1.1. History of Group Lending and Its Impact on Rural Poor

The ideology and practice of poverty alleviation has been deeply influenced by the idea that access to credit can empower the poor. Microfinance programs around the world cover millions of borrowers and are provided under a variety of different institutional arrangements. Although overall gains from such lending are widely acknowledged, there is concern about their failure to reach those at the bottom of the income distribution. There is a lively debate, but little consensus, on how these institutions can be better designed to serve poor families. An important question within this debate is whether group loans with joint liability provide marginal borrowers with adequate repayment incentives. The Grameen Bank of Bangladesh first popularized group loans in the 1970s and similar approaches were subsequently adopted by hundreds of organizations across the world. It was believed that joint liability would generate social pressure on borrowers to repay loans and help create a financially sustainable model of lending. In recent years, this strategy has been questioned and individual loan contracts have become an integral part of microfinance. In 2002, the Grameen Bank replaced their hallmark model of group lending with Grameen II, under which all members were individually liable for their loans and the group structure was maintained mainly to foster solidarity within villages. Following the introduction of the new system, the total number of borrowers increased from 3 to 8 million. This trend is by no means universal. An interesting contrast is provided by the microfinance sector in India which adheres fairly strictly to joint liability contracts (Jean-Marie Baland et al 2010). Since the 1970s, group lending programs have been promoted in many developing countries. A common characteristic of group lending is that the group obtains a loan under joint liability, so each member is made responsible for repayment of loans of his or her peers. Most schemes give subsequent credit only if the group has fully repaid its previous loan. The joint liability, but possibly more so, the threat of losing access to future credit, incites members to perform various functions, including screening of loan applicants, monitoring the individual borrower’s efforts, fortunes, and shocks, and enforcing repayment of their peers’ loans (Manfred Zeller, 1996). Group loans credit extended to a group of persons, who in turn distribute funds among its members have been introduced by financial institutions in many less-developed countries as a means to improve the effectiveness of their credit delivery systems. As cited by Jerry R. and Gonzalo Afcha (u.d.) Adams and Ladman (1979, p. 85) Present four reasons why an institution would want to use group loans. First, the institutions' lending costs can be reduced because they make a single loan to a group of farmers, who, in turn; (a) on lend the funds as sub-loans among their members and (b) assume the responsibility for collecting and repaying the loan. Second, loan delinquency should be reduced because group members agree to joint liability for the repayment of the total loan, i.e., the group
accepts the responsibility to repay the sub-loans of each member. It is hypothesized that peer pressure among members should enhance repayment of group loans compared to individual loans. Third, more technical assistance can be provided and the per-farmer cost of delivering it should fall since it can be provided to groups of borrowers rather than on an individual basis. Fourth, without raising total costs, the institution should be able to reach more farmers with credit because of the above-mentioned efficiencies. Adams and Ladman (1979), go on to point out that group loans should also be beneficial to the borrower, principally because loans to groups should lower borrower transactions costs. Many of the procedures associated with implementing and repaying a loan can be done on a collective basis, with the result that the costs per farmer are reduced. In addition, because of lender's economies, more borrowers should receive credit and benefit from technical assistance. The benefits to the borrower of joint liability are less clear. On the one hand, the borrower should feel assured, knowing that repayment on his sub-loan is backed by joint liability, but, on the other hand, he must accept responsibility for other members' sub-loans. Whether or not the borrower views joint liability as advantageous will depend on how he weighs the two possible outcomes.

As cited by Jerry R. and Gonzalo Afcha (u.d.) Ladman Adams and Ladman (1979), Adams and Pablo (1981) Donald (1976, p. 195) and others, noted that group lending programs have met with mixed success, but it is most common that they fail to live up to expectations. The Bolivian experience of group loans in the Small Farmer Credit program (PCPA) of the Bolivian Agricultural Bank is another one of these cases. The PCPA was established in 1975 under financing from the United States Agency for International Development. From the outset, the PCPA placed heavy emphasis on lending to small groups of farmers. In 1979, the PCPA decided to discontinue group lending considering that, in general, these loans had failed to streamline the Bank's credit delivery system and had not enhanced repayment.

1.2. Why group based program?
Finding the answer to world poverty probably features as top priority for humanity. According to World Bank estimates in 1999 about 1.2 billion people world-wide had consumption levels below $1 a day, and 2.8 billion lived on less than $2 a day. A key constraint that is believed to keep the poor in their state is the fact that they lack credit. Hence a major thrust of anti-poverty programs initially was to provide subsidized productive credit to the weaker sections of society. Yet, such poverty alleviation schemes adopted from the early 1950s through 1980s were largely unsuccessful. Loan repayments rates often were well below 50 percent, costs of subsidies for financing these programs were prohibitively high and much of the credit was diverted to the politically powerful, away from the intended recipients as cited by (Moh’d Al-Azzam and Sudipta Sarangi, 2007) in (Adams, Graham, von Pischke 1984). Consequently, their impact on poverty was virtually negligible. In the last couple of decades however, a growing range of financial institutions that developed an alternative lending mechanism have turned around the received wisdom that lending to poor households is doomed to failure. Microfinance institutions (MFIs) as these are called share a commitment to providing poor households with very small loans to assist them start productive activities or grow their current small businesses. MFIs extend credit to poor household through innovative use of information that potential borrowers may have about each other while maintaining high repayment rates and financial sustainability. The hope is that much poverty can be mitigated by extending credit and financial services to poor households. In most developing countries poor households usually have no access to the formal banking system. The formal banking system has three major problems in extending credit to such borrowers: inability to assess the risk type of potential borrowers (screening), to ensure that the loan once made is utilized productively (monitoring) and to ensure the repayment of loans if borrowers are reluctant to do so (enforcement). Note first that the poor in general cannot meet the collateral requirements stipulated by the banks. Second, the inherently high cost to banks of screening and monitoring the actions of the poor and to enforce contracts may all contribute to the exclusion of the poor from the credit market. One innovation for extending credit to the poor lies in group lending –lending to a self-selected group of entrepreneurs who are jointly liable for a loan. Since group members are jointly liable for a loan, group lending creates incentives for individual group members to screen out risky borrowers, monitor each others’ actions and enforce repayment. Essentially, by
replacing physical collateral with a form of social collateral, it considerably lowers the cost of the loan for the lender. The borrowers have more information about each other and hence can successfully solve the asymmetric information problem that plagues the lenders (Moh’d Al-Azzam and Sudipta Sarangi, 2007).

Other study also pointed out, group based schemes may have an informational advantage over outside lenders: obtaining information about the action of each member of a group by an outside lender would be costly and subject to misrepresentation. Group members can monitor each other with relative ease as well as train and assist low productivity members. Social custom in rural areas restrict direct contact between potential female borrowers and outside lenders. Even if the credit program organizer is a man it is easier for a women to interact with the organizer when in the company of a larger group of women. The informational advantage of group-based credit is thus likely to be greater for women than for men. This information advantage carries over the issue of bundling credit and insurance. In the absence of insurance, adverse shocks may have an effect on the ability to repay loans as well as lower effect in the financed project and decreased income and consumption. Here again, the group is likely to have an informational advantage over outside lenders. Moreover, there is evidence that women are more prone to adverse shocks, related to pregnancy, illnesses associated with childbearing, and care giving for other household members who fall ill, making them riskier clients for poorly informed outside lenders as cited by Mark M. Pitt and R Khandker (2000) in (Rashid and Townsend 1993).

2. **Statement of problem**

Since the last two decades, as part of the global and national initiatives, the government of Ethiopia together with its development partners has been pushing to a development with aim of achieving a broad based and sustained economic growth. In light of the strategy, objective of reducing the depth and extent of chronic poverty over time, a strong system of Monitoring and Evaluation has been put in place to monitor progress in poverty reduction. Consequently, the issue of Welfare Monitoring in the country arose as part of the Economic Reform Program (ERP) (HICES -Household Income and Consumption Expenditure Survey, 2010/11).

According to the 2010/11 HICES, the proportion of poor people (poverty head count index) in the country is estimated to be 29.6% in 2010/11. In 2010/11, while the proportion of the population below the poverty line stood at 30.4% in rural areas, it is estimated to be 25.7% in urban areas. The poverty gap index is estimated to be7.8% while it is 8.0% for rural areas and 6.9% for urban areas. Similarly, the national level poverty severity index stood at 0.031 with rural poverty severity index (0.032) being slightly higher than that of urban areas (0.027). Between 2004/05 and 2010/11, income (consumption) inequality measured by Gini Coefficient has shown a slight decline from 0.3 in 2004/05 to 0.298 in 2010/11. Inequality as measured by the coefficient has declined in urban areas from 0.44 to 0.37, while rural inequality increased from 0.26 to 0.27 though inequality is still higher in urban than in rural areas. But the poverty level is still high in the rural areas.

The decline in rural poverty can be attributed to the wide-ranging and multi-faceted pro-poor programs that have been implemented in rural areas such as extension of improved agricultural technologies and farming practices, commercialization of smallholder farming agriculture, rural infrastructural development and a range of food security programs (productive safety net programs, provision of credit etc). Despite the substantial declining of poverty over the past five years, poverty remains high at 29.6 percent. So the poverty alleviation is still the challenging area of the country in achieving its MDGs within the specified time. One of the supporting programs implemented in Ethiopia in alleviating poverty is Group-lending program to poor’s through microfinance’s and its role is summarized in number of studies as follows.

Many advantages to group lending are cited in the literature. An often cited justification for group lending is that it provides financial returns, especially to women who have no other means of exerting their independence (Berenbach and Guzman (1993), Khandker, Khalily, and Khan (1994), Goldberg and Hunte (1995)) as cited by Julia Anne Paxton (1996).

The argument is that group credit gives women self-esteem, mutual trust, empowerment, and other “psychic benefits.” For rural women who have very limited knowledge about the outside world except
through family members, participation in group activities may mean information gathering (Khandker, Khalily, and Khan (1994), as cited by Julia Anne Paxton (1996).

Sefa Kwami Awaworyi & Jeffery Korankye Danso (2010) found that participation in the microfinance program has enabled clients to improve upon their income level as well as their standard of living as compared to the non-clients. The study concluded that microfinance plays an active role in reducing poverty in Ghana. Mark M. Pitt, (2002), also found out that poor women’s participation in the group lending program increases consumption.

An evaluation study undertaken by Asian Development Bank (2007), found that participation in microcredit has Consistent mildly positive impacts on per capita total expenditures and per capita food expenditures of poor’s. However, the impact on per capita income and expenditures was found to be regressive (i.e., the impact was negative on households with per capita incomes of less than P (pesos) 34, 428, and become positive only for households with per capita incomes above P 56,200). This result is similar to other studies on the provision of microcredit in Bangladesh, India, Indonesia, Sri Lanka, and northeastern Thailand. The finding suggests that targeting microfinance on the poorest households may not be the most appropriate way to help them escape poverty. The projects selected by the poorest households to finance with microcredit loans did not generate sufficient profit to increase household income.

A similar conclusion was also arrived at by an earlier review in Meyer (2002). Surveying available evidence for Asian countries, he concluded that while there seems to be an overall positive effect on income and education, results differs substantially across countries and programs both in magnitude as well as statistical significance and robustness.

Sefa Kwami Awaworyi & Jeffery Korankye Danso (2010) states Microfinance over the years has been considered to be one of the most effective and flexible strategies in the fight against global poverty. It is said to be sustainable and can be implemented on the massive scale necessary to respond to urgent needs of those living on less than $1 a day, the World’s poorest. GHAMFIN, (2005) it has been seen to be promoting economic growth since loans given are supposedly used in investing in micro business. This statement is not entirely true because funds from microfinance according to Ditcher (2007) as cited by Sefa Kwami Awaworyi & Jeffery Korankye Danso (2010) have been mostly used for consumption rather than business development. This defeat the whole purpose of microfinance which is supposed to help alleviate poverty through granting small loans to those considered as ‘’uncredit-worthy’’ to better their living standards.

Jean-Marie, Baland Rohini, Somanathan & Zaki Wahhaj (2010) states, the Grameen Bank of Bangladesh first popularized group loans in the 1970s and similar approaches were subsequently adopted by hundreds of organizations across the world. It was believed that joint liability would generate social pressure on borrowers to repay loans and help create a financially sustainable model of lending. In recent years, this strategy has been questioned and individual loan contracts have become an integral part of microfinance.

Group lending has been proposed as a tool for alleviating poverty in developing countries. The success of group lending has been attributed to its ability to mitigate asymmetric information and enforcement problems in the credit market Moh’d Al-Azzam and Sudipta Sarangi (2007). It is a widely spoken word by the leaders of developing countries and a written statement in the Missions of Micro finance institutions; that MFIs has an objective to alleviate poverty through their lending programs. Based on the empirical studies and theoretical literatures reviewed, researcher motivated to investigate the effect of group lending program on the income level (one means of measuring poverty) poor’s in East Gojjam Zone by conducting a study on the customers of ACSI.

3. Objectives of the study

The general objective of the study is to investigate the effect of group loan in improving the income level of borrowers. To achieve general objective the following specific objectives were designed:

1. To determine the relationship between group lending and income level of borrowers.
2. To determine how effective the microfinance group lending project in reducing poverty and in improving the status of poor’s.

4. Research Methodology
4.1. Study design
Research’s can be done through different types of researches’ design such as explanatory, exploratory, descriptive and casual. So since the main objective of this paper is to investigate the success of group-lending program in escaping poor’s from poverty the research design used is explanatory to explain the role of group lending in poverty reduction. The result discussed both quantitatively and qualitatively, and then the research type is both quantitative and qualitative (mixed).

4.2. Data Source and Type
The data source was the target population of the study, i.e. the group-lending program customers of ACSI in East Gojjam Zone and annual reports of ACSI. The data type includes both primary and secondary, but the study was mainly relying on primary data.

4.3. Data collection techniques
The primary data was collected through questionnaire, Interview and group discussion. The questionnaire was distributed to the sample group borrowers and the interview and group discussion was conducted with sample group representatives. Useful secondary data was extracted from annual reports of ACSI.

4.4. Sample and sampling Techniques
In east Gojjam zone there are 20 woredas and in these woredas there is one branch/sub branch of ACSI. However for the purpose of this study the researcher has been selected six woredas (Yejobe, Debre Elias, Sinan, Machakil, Enemay and Gozamin). From the six branches available in each woreda the researcher were took 6 sample groups using simple Random sampling; and then in each group there are five members, though there were 30 respondents per branch/ strata. The total sample size was 180 borrowers from six branches. Using probability sampling is reasonable because the population included in the sample is homogeneous and it is very important technique to eliminate bias in sample selection.

4.5. Data Analysis techniques
The data collated through the collection techniques discussed was coded tabulated; then tasted and analyzed through OLS (multiple linear regression model) to determine whether the program is successful or not in escaping poor’s from poverty and to test the designed hypothesizes.

4.5.1. Specification of the model
Level of poverty can be measured by different indicators; level of income is one the measure of poverty. The income level of rural households can affect by different factors, such as amount of credit, farm size, family size, age, education level of family head, modern agricultural practice. So these factors are designed as independent/regressor variables in the model and the level of income is the dependent variable/regressed variable.

\[ \text{Agril} = \beta_0 + \beta_1 \text{Acr} + \beta_2 \text{Frsiz} + \beta_3 \text{Fsiz} + \beta_4 \text{Ag} + \beta_5 \text{Edulvl} + \beta_6 \text{Mrfpr} + \beta_7 \text{Offis} + \varepsilon \]

Where;
- \( \text{Agril} \) = Monthly Income
- \( \text{Acr} \) = Amount of Credit
- \( \text{Frsiz} \) = Farm Size
- \( \text{Fsiz} \) = Family Size
- \( \text{Ag} \) = Age
- \( \text{Edulvl} \) = Education level of family head
- \( \text{Mrfpr} \) = Modern farming practice
- \( \text{Offis} \) = off farm income source
- \( \varepsilon \) = Error Term

\( \beta_0 \) = the estimated value of Agril when Acr, Frsiz, Fsiz, Ag, Edulvl, Mrfpr and Offis are zero
\( \beta_1 \) = the estimated impact of Amount of credit on monthly income
\( \beta_2 \) = the estimated impact of Farm size on monthly income
\( \beta_3 \) = the estimated impact of Family size on monthly income
\( \beta_4 \) = the estimated impact of Age on monthly income
\( \beta_5 \) = the estimated impact of educational level of family head on monthly income
\( \beta_6 \) = the estimated impact of modern Farming practice on monthly income
4.5.2. **Operational Definition of Variables and Hypotheses**

The dependent variable is monthly income while the independent variables are Monthly Income amount of Credit, Farm Size, Family Size, Age, Education level of family head, Modern farming practice, and off farm income source.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Variable definition</th>
<th>Expected sign</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agri</td>
<td>Dependent variable: Average monthly agriculture income of the household</td>
<td></td>
</tr>
<tr>
<td>Acr</td>
<td>Independent variable: Amount of money borrowed by household</td>
<td>Positive</td>
</tr>
<tr>
<td>Frsiz</td>
<td>Independent variable: Acers of land owned by household</td>
<td>Positive</td>
</tr>
<tr>
<td>Fsiz</td>
<td>Independent variable: Family members of household</td>
<td>Negative/ positive</td>
</tr>
<tr>
<td>Ag</td>
<td>Independent variable: Age of household head</td>
<td>Negative/ positive</td>
</tr>
<tr>
<td>Edulvl</td>
<td>Independent variable: Education level of household head</td>
<td>Positive</td>
</tr>
<tr>
<td>Mmnpfr</td>
<td>Independent variable: Modern farming practice of household</td>
<td>Positive</td>
</tr>
<tr>
<td>Offis</td>
<td>Independent variable: Availability of off farm income source</td>
<td>Negative/ positive</td>
</tr>
</tbody>
</table>

5. **Scope of the study**

The study investigates the effect of group lending program on the income level of borrowers from ACSI in east gojjam zone. To improve the income level of poor’s and escape them from poverty there may be number of developmental mechanisms to implement (such as, improved agricultural technologies and farming practices, commercialization of smallholder farming agriculture, rural infrastructural development and a range of food security programs, provision of specialized credit, etc.), but this study focused on the group lending program implemented by microfinance institutions.

6. **Significance of the study**

It is important for the management of ACSI by indicating the weak side of the program and the management team may use it as a base to take corrective actions based on the indications of the study. To policy makers of the program to know how this program is operated and achieve its objective; so the paper could answer their question by looking on the role of the program in escaping poor’s from poverty by improving their income.

7. **Result and Discussion**

7.1. **The effectiveness of group lending program in improving the income of poor’s.**

To investigate the role of group loan program in reducing poverty and improving the income level of poor’s the researchers were used the linear regression model and the result of the model was discussed as follows.

7.1.1. **Regression Analysis**

Regression analysis is used to observe the relationship between dependant and independent variables. Multiple simple regression was used to analysis the factors affecting poverty. The significance of the variables was tested by student F-Statistics and R² model specification.

**Table 1 Descriptive Statistics**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>agri</td>
<td>150</td>
<td>1129.9</td>
<td>248.7329</td>
<td>500</td>
<td>1800</td>
</tr>
<tr>
<td>acr</td>
<td>150</td>
<td>5973.333</td>
<td>1842.622</td>
<td>2500</td>
<td>8000</td>
</tr>
<tr>
<td>frsiz</td>
<td>150</td>
<td>4.55333</td>
<td>1.82881</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>fsiz</td>
<td>150</td>
<td>5.32</td>
<td>1.057539</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>ag</td>
<td>150</td>
<td>56.2333</td>
<td>8.727552</td>
<td>35</td>
<td>70</td>
</tr>
<tr>
<td>edulvl</td>
<td>150</td>
<td>1.24</td>
<td>.4285139</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>mmnpr</td>
<td>150</td>
<td>.966667</td>
<td>.3150819</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>offis</td>
<td>150</td>
<td>.32</td>
<td>.4680389</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: STATA11.0 result
The Descriptive Statistics part of the output gives the mean, standard deviation, minimum, maximum and observation count (N) for each of the dependent and independent variables. The Monthly Income variable has a mean value of 1129.92, 5973.33 for the amount of credit variable, and 4.55 for the farm size variable 5.32, 56.23, 1.24, 0.98 and 0.32 for the family size, age, education level, modern farming practice and off farm income source variables respectively.

Table 2 Regression Result

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>Number of obs = 150</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>4207001.28</td>
<td>7</td>
<td>601000.182</td>
<td>F( 7, 142) = 37.03</td>
</tr>
<tr>
<td>Residual</td>
<td>5011339.76</td>
<td>142</td>
<td>35293.125</td>
<td>Prob &gt; F = 0.0000</td>
</tr>
<tr>
<td>Total</td>
<td>9218341.04</td>
<td>149</td>
<td>61868.0607</td>
<td>R-squared = 0.4564</td>
</tr>
<tr>
<td>Adj R-squared = 0.4296</td>
<td>Root MSE = 187.86</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| agril | Coef. | Std. Err. | t | P>|t| | [95% Conf. Interval] |
|-------|-------|-----------|---|-----|------------------|
| acr   | .0200408 | .0089345 | 2.24 | 0.026 | .0023789 | .0377026 |
| frsz  | 26.06993 | 9.789603 | 2.66 | 0.009 | 6.717731 | 45.4212 |
| fsiz  | -37.69139 | 15.32099 | -2.43 | 0.016 | -68.37167 | -7.01128 |
| ag    | -13.94078 | 1.908457 | -7.30 | 0.000 | -17.71344 | -10.16812 |
| edulvl| 161.1459 | 41.12961 | 3.92 | 0.000 | 79.84048 | 242.4514 |
| mnrnfr| 364.1432 | 140.6263 | 2.59 | 0.011 | 86.15344 | 642.1329 |
| offis | 11.62513 | 36.61775 | 0.32 | 0.751 | -60.76124 | 84.01151 |
| _cons | 1313.131 | 204.3931 | 6.41 | 0.000 | 908.0147 | 1718.247 |

Source: STATA11.0 result
The above table shows the regression result; as indicated in the table the model is fitted well since R² 45% it implies that 45% of the dependent variable variation is explained by the independent variables included in the model. Except off farm income source all variables significantly affect the dependent variable (Agriculture Income) at 5% level of confidence. From the variables those significantly affect the dependent variable Family size and age of the household negatively affected it; however others were positively affect it.

The coef. Column in above regression result table indicates the coefficients of the estimated regression model. So the regression equation can be written as follows:

$$\text{Agril} = 1313.131 + 0.020 \text{Acr} + 26.069 \text{Frsiz} + (-37.691) \text{Fsiz} + (-13.940) \text{Ag} + 161.145 \text{Edulvl} + 364.143 \text{Mrnfr} + 11.625 \text{Offis}$$

β0 is the intercept of the regression model and its value is 1313.131. This shows the average monthly income of respondents when the independent variables in the model are held constant. β1 shows the estimated impact of amount of money borrowed through group loan on the monthly income of respondents. There exists a positive relationship between age and the monthly income of respondents. A unit increase in amount of money borrowed leads to a 0.020 increase in the monthly income holding all other predictors constant. β2 shows the estimated impact of farm size on the monthly income of respondents. There exists a positive relationship between farm size and the monthly income of respondents. A unit increase in farm size leads to a 26.069 increase in the monthly income holding all other predictors constant. β3 shows the estimated impact of family size on the monthly income of respondents. There exist a negative relationship between family size and the monthly income of respondents. A unit increase in family size leads to a 37.691 increase in the monthly income holding all other predictors constant. β4 shows the estimated impact of the age of household head on the monthly income of respondents. There exist a negative relationship between the age of household head and the monthly income of respondents. A unit increase in the age of household head leads to a 13.940 decrease in the monthly income holding all other predictors constant. β5 shows the estimated impact of education level of household head on the monthly income of respondents. There exist a positive relationship between education level of household head and the monthly income of respondents. If a household head is an educated it lead to a 161.145 increase in the monthly income holding all other predictors constant. β6 shows the estimated impact of modern farming practice on the monthly income of respondents. There exist a positive relationship between modern farming practice and the monthly
income of respondents. If a household practice modern farming it leads to a 364.143 increase in the monthly income holding all other predictors constant. β7 shows the estimated impact of off farm income source on the monthly income of respondents. There exist a positive relationship between off farm income source and the monthly income of respondents. If the household has off farm income source it leads to 11.625 increases in the monthly income holding all other predictors constant.

Significance of βi using the p-value where i = 1,…,7.

7.1.2. Hypothesis Test:
H0 : β1,...,β6 = 0
H1 : one or more of the parameters ≠ 0 at α = 0.05
Rejection Rule: Reject H0 if p-value < α and hence is significant.
By comparing each βi’s p-value to α = 0.05,
β1 is significant since its p-value, 0.026 < 0.05
β2 is significant since its p-value, 0.009 < 0.05
β3 is significant since its p-value, 0.016 < 0.05
β4 is significant since its p-value, 0.000 < 0.05
β5 is significant since its p-value, 0.000 < 0.05
β6 is significant since its p-value, 0.011 < 0.05
β7 is not significant since its p-value, 0.751 >0.05
Since the parameter of off farm income source is statistically insignificant, the modified equation becomes

\[ \text{Agril} = 1313.131 + 0.020\text{Acr} + 26.069\text{Frsiz} + (-37.691)\text{Fsiz} + (-13.940)\text{Ag} + 161.145\text{Edulvl} + 364.143\text{Mrnfpr} \]

So regarding accept reject of the hypothesis the null hypothesis is rejected which say Group lending program is not successful in escaping poor’s from poverty; since the independent variable amount of loan has significant positive relationship with the dependent variable.

8. Conclusion and Recommendation

8.1. Conclusion
Amount of loan borrowed through group loan has significant positive relationship with the average monthly income of the household and this result is similar with previous studies undertaken in Addis Ababa city and around Addis Ababa city by Abebe T. (2006); findings revealed that the average monthly income of most households rose after they took loans from MFI. Similarly more than 65% of respondent’s households confirmed that the overall household income increased due to MFI program. However, the impact is more pronounced in rural households than urban households.

8.2. Recommendation
Based on the findings of the research, the following suggestions or recommendations are made:
➢ Regularly provide technical assistance and training to all clients or beneficiaries on how to wisely use the loan services to their advantage is the very important thing that the lender should consider.
➢ Ensure that whether borrower are used the money taken to its intended purpose or not.
Borrowers should utilize their loan properly to escape from poverty

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