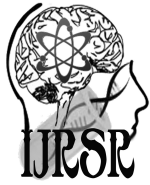IMPACT OF GROUP LENDING ON BORROWERS' WELFARE: THE CASE OF
SIDAMA MICROFINANCE, HAWASSA ETHIOPIA

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RESEARCH ARTICLE

IMPACT OF GROUP LENDING ON BORROWERS' WELFARE: THE CASE OF SIDAMA MICROFINANCE, HAWASSA ETHIOPIA

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ARTICLE INFO	ABSTRACT
	This paper was conducted in order to identify the impacts of group based lending on borrowers' welfare by employing multiple linear regression using econometric analysis based on randomly drown 150 borrowers in Hawassa surroundings which is found in Sidama Zone SNNP Region, Ethiopia. The study found that among explanatory variables amount of credit, monthly income before credit, and being gender of respondents have positive and significant relationship with the current income level of household. This study revealed that credit provision to Microenterprise has a great role on the reduction of poverty in terms of rising income level of the beneficiaries, increasing self-employment, improving living status, empowering Women and generally inducing the seed for development of rural areas. Therefore strengthening the voluntary saving account is the key missing element of the microenterprises project. Credit is short term measures directed at encouraging enterprises. It may not last forever. So, beneficiaries must be encouraged towards saving their surpluses both individually and through associations.

INTRODUCTION

Micro credit has made local revolution in access to credit in poor communities around the world. Micro credit referees to small loans, typically intended for investment in business. The lenders who offer these loans, manly non-profit, non-government organization (NGO), have extended credit to large number of low income entrepreneurs who have little or no collaterals (Malgosia, 2003). It has been estimated that there are 500 million economically active poor people in the world operating microenterprise and small business. Most of theme does not have access to adequate financial services. To meet this substantial demand for financial services by low-income micro-entrepreneurs, micro-practitioners and donors alike should adopt a long term perspective. The development experience of the past few decades suggests that economic growth policies have not generated adequate income earning opportunities for the poor. The poor, especially woman and other disadvantage groups, do not have the access to credit, education, and healthcare and other social services that they need. Accordingly, the experience of the Bangladesh Rural advancement committee (BRAC) suggests that when poverty is rooted mainly in the basic social and economic dependency to local exploitative forces, target measures are necessary to reach the poor. Poverty is multidimensional, so poverty reduction efforts require multifaceted interventions. Government efforts to curb poverty are often inadequate when poverty is severing among the large section of the population. An effective poverty reduction stratagem requires innovative measures, outreach programs, experimentation, and donor funds are required for the design and implementation of a successful program. Moreover, an effective poverty reduction program requires resourceful design that can comfort all dimensions of the poverty problem simultaneously in a specific socio-economic context.

Ethiopia is one of the few countries that have prominently included in their development strategy. The financial sector in Sidama, as it is in Ethiopia in general, has traditionally concentrated and focused in the urban arias and are not available to the rural areas where the majority of the population resides. As a result, the rural inhabitants are uneducated, poor and women have been ignored and denied access to formal financial services. These attributed to scattered settling of the rural population, considering farming as high risk business, lack of collateral and reluctance in close monitoring and support in using the loans (Tsegay, 2007). Micro-enterprise lending program was commenced up on the agreement signed between the government of Ethiopia and International Development Association (ADA). The program aimed at financing micro-enterprise development project. To facilitate this program, Development Bank of Ethiopia (DBE) was

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involved as a financing agency while Ministry of Trade and Industry (MTI) and at regional level the Bureau of Trade, Industry and Tourism were involved as implementing agencies. Accordingly, in Ethiopia Micro-enterprise lending program was started with 16 market town including Hawassa town in 1993/94. In 1994, the government of Ethiopia opened the commercial banking sector to private banks and in 1996, followed the same rout with Micro-finance institutions (MFI$_s$). As of Dec.2005, there were 35 financial institutions operating in Ethiopia including 3 governmental banks, six private banks and 26 Micro-finance institutions, all regulated by the national bank of Ethiopia. Although, a young sector in Ethiopia there are already 26 micro-finance institutions registered with the National Bank of Ethiopia, with a total of 1.3 mill clients in 2005. Up from about 2mill the previous year. Sidama micro-finance has about 34,700 client and 14,521,465 birr out standing loan portfolio and client saving balance birr 5,115,551 in 2007.Sidama micro-finance is located in southern region of Ethiopia, Sidama zone. It has established more than 12 branches and about 4 sub-branches in the zone (Tsegay, 2007).

Statement of the problem

Ethiopia is one of the developing countries, known by its low income per capita, low economic growth, traditional economy, and faster population growth, high level of unemployment, low saving and low level of living standard. Farther more, the unwillingness of the borrower to take credit by forming control group and also after they take the credit, they spent for consumption purpose. In order to minimize the above problems one of the measure is credit provision at micro-enterprise level. Hence this study aims to assess the impact of group based lending on borrowers' welfare. That means it is mainly focuses on the assessment of impacts of group based lending in the borrower's, income, housing, health condition, Education and living condition and confined with the Sidama zone specially in Hawassa surrounding.

METHODOLOGY OF THE STUDY

Data type and source

In order to get necessary information on income, education, housing etc the study uses semi-structured questioner. The amount of credit each individual borrowed is taken from the institution record.

METHODOLOGY

The study uses both Descriptive and Econometric methods. With Descriptive method the collected data represented by numbers, so that quantities and magnitude is measured, assessed and interpreted with the use of mathematical and/or statistical manipulation. The data for the study obtained from a survey of house hold in Hawassa surrounding from 150 groups of borrowers, 150 individual members were selected. The selection uses random sampling technique because the sample would be representative of the population if simple random sampling technique is adopted. In the econometric method multiple linear regression models with both dependent and

independent variable is used. After collecting data of this sort, it is possible to assess the effect of group lending on borrowers by estimating the multiple regression model relates the level of income to the level of independent variable. The following multiple linear regression model will be employed to assess the impact of group lending on borrowers income (Gujarat, 1992).

Model Specification

$$Y_i = \beta_0 + \beta_1 x_{1i} + \beta_2 x_{2i} + \text{------} + \beta_k x_{ki} + u_i \text{ ----------------------------------- (1)}$$
Where

$Y_i =$ dependent variable, $\beta_0 =$ intercept, $\beta_1, \beta_2 ... \beta_k =$ regression coefficients, $u_i =$ error term

Diagnosis and Model Test

To verify whether the explanatory variables all together have significant relationship with dependent variables, F-test has been used. The regression value of F is 15.031, 1% level of significance. Therefore, explanatory variables all together significantly affect income level of borrowers. Moreover, the regression value of R^2 is equal to 0.667. This implies that the explanatory variables explained 66.7% of the variation in current income levels of beneficiaries of micro enterprise lending project. Furthermore, the VIF is 2 that indicate the model has strong tolerance and weak multi collinearity among explanatory variables.

Descriptive Analysis

General Background of sample Beneficiaries of MEP

For the purpose of this study, the primary data have been collected carrying out interview. These data consists of different features of respondents. The interview was conducted on 150 households who are beneficiaries of micro enterprise leading project in Hawassa surrounding. To see the impact of credit provision on borrowers, these 150 households are selected by using simple random sampling techniques so as to make the sample a good representative of the whole population. Accordingly, the following table shows sex and martial status of the respondents.

Table 1 Sex and martial status of respondents (N: 150)

Sex	Frequency	Percentage (%)
Male	36	24
Female	114	76
Marital status		
Married	132	88
Single	6	4
Divorces	9	6
Widowed	3	2
Total	150	100

Source: Field Survey

As can be seen from the table 24% of the respondents are male but it is 76% for female respondents. The numbers of female beneficiaries is significantly greater than that of the numbers of male beneficiaries. This shows that micro-enterprise leading project has given a great emphasis to empower women. Accordingly, the credit provision to micro-enterprises helped women to participate in the productive work. Table (1), indicates that 88% of the beneficiaries are married only 4%, 6% and 2% of

them are single, divorce and widowed respectively. So, most of the beneficiaries are married. In this study the age of the beneficiaries has also been given emphasis. This is because it is necessary to know the age of the beneficiaries in which they utilize their loan funds effectively and efficiently.

Table 2 Age distribution of sample house hold (N: 150)

Age	Frequency	Percentage (%)
20-30	21	14
31-40	63	42
41-50	42	28
51-60	18	12
61-70	6	4
Total	150	100

Source: Field survey

The above table shows that, 14% of the respondents are under aged between 20-30 years old, 42% of them are between 31-40 years old, 28% are 41-50 years old, 12% are 51-60 years old and 4% of them are between 61-70 years old. One can see that both extremes of the age are not beneficiaries of the micro-enterprises leading project this is might be due to they are found in the unproductive age. The educational status of the respondents is also taken in to account. This is because being literate helps micro-entrepreneurs in recording their costs and benefits so as to adjust their pricing system accordingly so; table (3) reveals the academic background of the respondent.

Table 3 Academic background of house hold (N: 150)

Level of education		Frequency	Percentage
Illiterate		18	12
Literate	1-4	15	10
	5-8	45	30
	9-12	60	40
	above 12	6	4
Total		150	100

Source: Field survey

As indicated in table (3) 88% of the respondents are literate and only 12% are illiterate. Among literate category 9-12 grade is 44% of the total sampled households. This shows that micro-enterprise lending project has a role in self employment creation to educated unemployed. Moreover, 4% of the respondents are above 12 grade (according to them, they are 12+1 and 12+2) indicating that the role of credit provision to micro-enterprise in the reduction of unemployment in the town. Generally respondents have relatively better educational background. Their educational background is associated with the educational facilities in the town.

Assessing the Activities of Micro-Enterprise Project and Its Impact on Beneficiaries

General information on micro enterprise credit project has been collected using questionnaires in the field survey. Accordingly, the type of micro enterprise in which respondents have been engaged is collected. The following table shows the type of micro-enterprise in which the same households are engaged.

Table 4 The type of Micro enterprise of households (N: 150)

Type of micro enterprises	Frequency	Percentage (%)
Production (soap production)	3	2
Petty trade	21	14
Food and drinks	45	30
Handicrafts	12	8
Shop	63	42
Shoe markers	6	4
Total	150	100

Source: Filed survey

2%, 14%,30%, 8%, 42% and 4% respectively. Respondents engaged in shop trading comprise 42%, which takes the largest share of the total micro-enterprise of the sample households. This implies that the beneficiaries of micro enterprise lending project have only little entrepreneur ship because being engaged in shop trading does not require entrepreneurial ability. This also indicates that beneficiaries are imitating rather than taking innovative action. This also further indicates the absence of research and development body in the project. Therefore, micro-enterprise credit project would develop research and development center along with its credit provision. Food and drinks took the second share of the total type of micro-enterprises. As it is known that food and drinks trade is traditional even though it is important. This also implies that micro-entrepreneur are able only little to create new micro-entrepreneurs. Only shop, food and drinks together accounts for 72%of the total type's micro enterprises in which the sample rural poor beneficiaries of micro enterprises of micro enterprise project engaged. Production, which is very essential for economic development, comprises only, 2%, i.e., only three households were engaged in it, out of 150 households responded. This shows that how help is needed to micro - enterprise owners so as to make them innovator. Another issue, as micro-enterprise credit project has been concerned, is the period of time when beneficiaries get credit. According to the sample households the credit will usually be delivered to clients as all member of each association have completed their loan, but they want the credit on average between September and December. This is because the demand for their goods and services is relatively higher in these months. One can understand that the time when credited will be delivered and the beneficiaries want to borrow vary. This results in inefficient utilization of the loan funds. Therefore, the time of credit delivery and that of the beneficiaries in need of it should much each other. The following table shows in which months the respondents want to get credit.

As can be seen from table (5), 86% of the respondents want to borrow between September and December. Only 8% and 6% of the respondents want to borrow in January-April and May-August respectively. The main focus of this study is to assess the role of credit provision to micro enterprises in the households' welfare. In this regard, the level of income given a great emphasis. This is because the role of credit provision to urban poor often assessed by comparing income level of beneficiaries before and after credit provision as this study is concerned. Accordingly, the following table shows the levels of income of respondents before and after credit provision.

As one can see from the above table, income level of the respondents after credit provision is highly greater than that of the income level before credit provision. For instance, the minimum range of the income level of the respondents after credit provision is birr 200-520 but it is Birr 100-260 before credit provision. The maximum range of the income level of the respondents after credit is Birr 2021-2520 but it is Birr 1011-1260 before credit provision. Moreover, the average monthly income of respondents after credit provision is Birr 882.52 but it is Birr 337.10 before credit provision. This implies that credit provision has significantly increased the income level of the respondents. Therefore, we can say that credit provision to micro-enterprise has played a significant role to make households' welfare better off in the rural poor, as it increased the income level of the respondents.

The payback period is another important factor, which can affect the credit provision system.

Table 5 The months in which the respondents want to get credit (N: 150)

Months	Frequency	Percentage
September to December	129	86
April to January	12	8
May to August	9	6
Total	**150**	**100**

Source: Filed survey

Table 6 Distribution of income of respondents before and after credit provision.

Level of income before credit	Frequency	%	Level income after credit	Frequency	%
100-260	63	42	200-520	36	24
261-510	54	36	521-1020	60	40
511-760	15	10	1021-1520	36	24
761-1010	12	8	1521-2020	15	10
1011-1260	6	4	2021-2520	3	2
Total	**150**	**100**	**Total**	**150**	**100**

Source: Field survey

Assessing impact of credit in improving possession of house hold equipments and living status

As the main aim of this paper is to assess the impact of group lending on borrowers, a greater emphasis has been given to analyze the house hold equipments that the respondents have possessed after credit provision. The type of households' equipment assessed in the study are radio, tape, television, typewriter etc. The following table shows house hold equipment of the respondents before and after credit provision.

Table 7 Households equipment of respondents

Type of equipment	Equipment own before credit	Percentage	Number of respondents possessed the equipment after credit	Percentage
Radio	138	92	12	8
Tape	93	62	45	30
Television	3	2	39	26
Telephone	0	0	29	19.3
Typewriter	0	0	6	4

Source: Filed survey

According to table (7), 100% of the respondents, after credit provision, have possessed radio but it was 92% before credit provision. 92% of the respondents, after credit provision, have possessed there own tape but this figure before credit was 62%. Moreover, before credit provision only 2% of the respondents have possessed their own television, but after credit provision this figure has been increased to 26%. Furthermore, no respondents has telephone and typewriter before credit, but after credit provision the respondents, who have possessed telephone and typewriter are 19% and 4% respectively. Living status of respondents is another point, which is given emphasis in this paper. Accordingly, in this study the living status such as condition of shelter, clothing, nutrition, educating children and health have been taken in to account.

Table 8 Response of respondents about living status (N: 150)

Living status	After credit Improved	Not improved	Percentage Improved	Not improved
Shelter	126	24	84	16
Clothing	144	6	96	4
Nutrition	144	6	96	4
Educating children	141	9	94	6
Health condition	144	6	96	4

Source: Filed survey

The following table shows the response of respondents about their living status.

Table (8) indicates that almost all of the living status considered in the study has been improved after credit provision. This implies that credit provision to micro-enterprises in the area has a great role in the improvement of household living situation.

Econometric Analysis

This part deals with econometric analysis. Accordingly, model and Variable used are presented and the result of the model is provided below after model specification.

The Model

The dependent variable (level of current income) is continues. When dependent variable in the model is continues or is not qualitative, econometrics suggest to use multiple linear regression model. For instance as cited in Gujarat (1992), J.A Dalton and S.L Levin used similar regression model can be specified as:-

$$Y_i=\beta_0 + \beta_1 x_{1i} + \beta_2 x_{2i} + ------ + \beta_7 x_{7i} + u_i \text{--------------------- (3)}$$

Where:

β_0, β_1 β_2… β_7=Partial regression coefficients, β_0=Intercepts, U=error term

The OLS method is used to estimate the model this is because the dependent variable is continues. The data contains Factors that influence the current income level of sample households in Hawassa surrounding the data constitutes 150 sample households who are beneficiaries of micro enterprise. The following table summarizes the results of the model.

Model specification

Model in econometrics is an equation depicting the causal relationship between factors that are believed to generate observed data. This model is formulated to show the relationship between level of income dependent variable and the factors (independent variables) that influence the level of current income. Hence, seven independent variables were identified on the basis of review of the literature. Various, writers and researchers demonstrate the relation of these factors and income level of households in their writings. In the model only one Variable was measured in discreet form but all others explanatory variables are continuous. Thus, the model is depicts as follows.

Y=f (Cr, Mb, Fs, Yd, Ye, G, D) ---------------------------- (2)
Where:

Y = Level of income (ETB), C_r = amount of credit (ETB), M_b = monthly income of household before credit (ETB), F_s = Family size (numbers), Y_d = Years of education (Year), Y_e = Years of experience (Year), G = age of the respondent (Year), D = Sex = 1 if female

= 0 if male

Table 9 Regression Estimates

Variable	B	P > |t|
Cr	.417	0.000*
Mb	.526	0.000*
Fs	-0.130	0.162
Yd	0.076	0.388
Ye	0.048	0.623
G	-0.069	0.442
D	0.165	0.057**
Constant	0.263	0.272

R^2= 0.667, F= 15.031 (0.000), Note, * and ** show level of significance at 1% and 10% respectively Source: Authors Estimation

Among explanatory variables amount of credit, monthly income before credit, years of education, years of experience and gender of respondents have positive relationship with the current income level of households. On the other hand, family size and age of the respondents have negative relation with income level of households. According to the model, three explanatory variables significantly affect income level of respondents at different level of significance. The significance level indicates the extent to which the explanatory variables affect income level of the beneficiaries of micro-enterprise lending project. Two factors such as amount of credit and monthly income before credit are highly statistically significance at 1%. The third explanatory variable, i.e. sex of respondents is also statistically significant at 10%. On other hand, factors such as family size, years of education, and years of experience and age of respondents are not statistically significant.

Amount of credit is highly statistically significant factor that affects the current income level of households. For instance, other things being constant, a one Birr increase in credit will increase the level of income of households by ETB 0.417. Similarly, if the amount of credit is increased by ETB 1000, the current income level of beneficiaries will rise up by ETB 417. This indicates, as amount of credit increases beneficiaries will increase quality and quantity of their products and service. Thus, they can attract a number of new customers and consequently their income level will increase. This indicates that increasing the amount of credit plays a significant role in the reduction of rural poverty. Monthly income level before credit provision also anther highly significant factor that influences current income level of households. For example, other things being constant, one birr of business income before credit provision will increase the current income level of beneficiary by ETB 0.526. Thus, if a client has his/her own ETB 100 monthly business capital before credit provision, the current income will rise by ETB 52.60. This implies that beneficiaries already have know-how about business activities thus they are relatively utilizing loan funds more effectively than those who have not any business capital before credit. Gender of credit beneficiaries is also significant factors that affect the current income level of credit beneficiaries. Accordingly, being female positively affects the income level of households. So according to the model result one can say that women are relatively utilizing their loan more effectively than men as far as their current income is concerned.

Conclusion and Recommendations

CONCLUSION

This study revealed that credit provision to Micro-enterprise has a great role on the reduction of poverty in terms of rising income level of the beneficiaries, increasing self-employment, improving living status, empowering Women and generally inducing the seed for development of rural areas. Moreover, this sector is characterized by a large number of small-scale production and service activities that are owned by family or individually and use labor-intensive and simple technology. Despite the Significant contribution of micro-enterprises especially on poverty alleviation due to self-employment creation, income generation, women employment, etc, the sector has not yet got the necessary emphasis. Because of lack of emphasis the productivity and profitability of the Micro-enterprise have been constrained by deficiency of capital, management capacity, skill level of the owners (beneficiaries) as well as the workers (employees), market and others. Realizing the significant contribution of micro-enterprises, Understanding the problem facing the sector and formulating strategies to overcome these problems are the key elements to enhance the role of micro-enterprise to reduce rural poverty. The study results that the role of credit provision to micro enterprise in the reduction of rural poverty is found to be significant. Most of the beneficiaries have been benefited from the project employment, women employment, and etc. Hence, the achievements of the project are so encouraging to suggest that Micro-enterprise lending project should not only be strengthened and continued in its current situation but also should be expanded to a number of new beneficiaries and ultimately to all people in the sector so as to get the expected level of poverty reduction in rural areas. Moreover, giving adequate emphasis to enhance, Micro enterprise will transfer from this sector relatively to a higher scale of capacity.

Recommendations

Based on the achievements and problems of micro enterprises identified in the analysis part of this paper, the following possible solutions and directions of implementing credit service are suggested. Some of the suggested solutions may be implemented within short period of time while others may take longer periods. The arrears and defaulting problems, that have been seen recently should be given due attention if the credit prohibition to Micro enterprises would be continued. Accordingly members should be aware of their responsibilities in terms of influencing repayments. Moreover, appropriate measure should be taken on defaulters, manly legal and social pressures by the agents of the concerned legal body.

The study results revealed that voluntary saving account is the key missing element of the micro-enterprises project. Credit is short term measures directed at encouraging micro-enterprises. It may not last forever. So, beneficiaries must be encouraged towards saving their surpluses both individually and through associations. Therefore, voluntary saving should be taken in to account as one main objective. Funds for repaying loans are obtained from the returns on investment, but obtaining return

on investment usually taken time. In addition to credit provision, the agents of the concerned institution should carry out market survey. Beneficiaries should be advised to divert their activities from production of goods and services whose demand is low to those products, which have relatively better demand accordingly. Moreover, the beneficiaries should also be advised on the direction of the market and the seasonal variations of demand.

Follow ups on the utilization of the loan should be carried out. Such follow ups may enable participants to avoid the utilization of funds on activities other than their business plan. Regular training to beneficiaries should be given along with the provision of credit services. This training should be directed at improving the management capacity of beneficiaries and at inducing utilization of new technologies, instruments and systems. This can be done through provision of credit in kind. The model results revealed that being female has positive relation ship with the level of income of respondent. This implies that women clients are relatively using their loan funds effectively when compared with male beneficiaries. Therefore micro enterprise lending project should increase female beneficiaries as to reduce urban poverty through credit provision. The regression results also revealed that age of the respondents is inversely related to income level of the sample house holds. This indicates that as the age of the house holds Increases the level of income of the households will decline.

Accordingly at the extreme ages households cannot utilize their loans effectively. Therefore, MEP should take in to account the age of beneficiaries in its criteria of target group selection. The model result also depicted that monthly income of the respondents before credit highly and positively affects the income level of the households.

This indicates that beneficiaries who have some amount of initial capital are very effective in utilizing of their loans. So, the projects should encourage the beneficiaries to have at least little amounts of their own initial capital to get loan.

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