Micro-Credit and Poverty Alleviation in Pakistan

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Abstract: Poverty is a global menace and Pakistan is no exception, about 22% of the population is living under poverty line on the basis of Head Count Ratio. Micro-credit programs have emerged as a vital tool to address the issue in countries like Pakistan. It gives people the chance to earn livelihood, helps them to live with self esteem and reduces their financial exploitation. The study in hand analyzed how micro-credit helped in reducing the poverty in District Jhelum, Punjab, Pakistan. This primary data based study was conducted to assess the role of micro-credit in the uplift of low income consumers. An interviewing schedule was prepared for data collection. Multiple regression model was used in two phases; first to check the impact of micro-credit on the incomes of people and secondly to test out the impact of the income on the poverty status. The results of first phase show that the income is dependent on the micro-credit along with other variables and in the second phase it was found that income has a negative impact on the poverty providing a clue that micro-credit is an important tool for improving and increasing the living standards of the people.

Key words: Micro-credit · Poverty · Income · Pakistan

INTRODUCTION

Poverty cannot be defined in absolute terms. It may differ in perception from person to person and nation to nation. It is a complex and multidimensional phenomenon which encompasses social, economic and political deprivation of people. Limiting thereby the ability of the poor to secure gainful employment and bring a change in their lives [1]. However it may be defined in a comprehensive way as inability to obtain a minimal standard of living. Each country has its own criteria to track changes in national poverty rates. But these measures do not always allow reliable comparisons of poverty between countries and they cannot be used to calculate the aggregate poverty for groups of countries. For that a uniform poverty measure was proposed known as poverty line i.e. people who do not have US$1 or US$2 a day for their livelihood are poor. For cross country analysis this measure can be adjusted for purchasing power differences between countries [2].

World poverty statistics show that the majority of the world's population lives on less than $1 a day. Every day, 25,000 children die from poverty. Almost 1 billion people cannot read. 1.6 billion people live without electricity. Diseases such as HIV/Aids, malaria, tuberculosis, dysentery and diarrhea are very common. Children cannot receive basic immunizations and die from simple diseases we would normally recover relatively quickly from. It also prevents access to clean water because of pollution, adequate food supply, proper housing, bedding, education, employment, technology, communication and healthcare - all of these being basic human needs. Sometimes, rodent infestations occur, ruining any surplus crops or food a family may have. Whatever food remains will then be disease ridden. Many times, people living in poverty suffer from hunger and about 800 million people go hungry every day. Causes of poverty can range from war, natural disaster (such as tsunami, earth quake, etc.), overpopulation, to corruption [3].

The situation is getting worse day by day as the world economic growth is retarded due to current recession generated by global financial crisis. Enterprises stopped hiring and many of them are reducing their workforce in considerable numbers. In 2008, an estimated 6.0 percent of the world's workers were not working but

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looking for a job as compared to 5.7 percent in 2007. Experience showed that the longer people stay out of work the more their "employability" depreciates, making it progressively harder to get back into work, ultimately increase the vulnerability to become poor [4].

As the problem is global and developed as well as developing nations are suffering from its consequences, Pakistan is not an exception where poverty alleviation has always been the major goal of all development plans. In the early years of twenty-first century Pakistan has seen a rapid economic growth mainly due to the inflow of foreign aid, thus decreasing poverty level in the country. A recent survey which is based on Head Count Ratio i.e. percentage of population living below the poverty, shows that poverty has fallen from 34.44% in 2001 to 22.30% in 2005-06, a decrease of 12.4%.Similarly based on head count ratio percentage of population living below the poverty line in rural areas has decreased from 39.26% to 27% while in urban areas it has decreased from 22.69% to 13.10% during the same period. Despite the brutal terrorism acts in the country Pakistan pursued a sound fiscal policy and maintained financial discipline until 2006-07 that helped reaping the benefits of strong economic growth that helped ultimately in the reduction of poverty [5].

Poverty in Pakistan is primarily a rural phenomenon and urban poverty originates from this phenomena. Rural poverty originates because there are a few or no opportunities available for rural people to meet their basic needs which give rise to migration of vast number of people from rural to urban areas. This puts extra pressure on urban localities. So the only option available to the government is to stop migration of people from rural to urban areas by providing facilities in their native places. There is a general consensus among people that sustainable growth must be preceded by direct poverty and anti poverty programs[1], which must provide them opportunities of better education, health, sanitation and provision of timely credit.

In developing countries, different poverty alleviation programs have been directed at increasing the income generating potential of the poor people. As poor people don't have necessary resources, due to which they are unable to raise their standard of living. The role of micro credit thus becomes essential for the uplift of the poor and destitute and serves as an effective means of reducing poverty. Micro credit can be defined as, a credit provided to 'poor' free of collateral through institutionalized mechanism, this means credit will be available 'as and when' needed by the poor at their door steps [6].

Micro credit can be a vital tool to address the issue of poverty in countries like Pakistan. On one hand it gives people the chance to earn livelihood and on the other hand helps people to live with self esteem. It also reduces the financial exploitation of the poor people. These micro credit / finance programs are gaining importance as an effective tool of social mobilization and income generating activities. The micro credit market in Pakistan is composed of two major sectors i) Formal sector ii) Informal sector. Formal sector consists of Zarai Taraqiati Bank Limited (ZTBL) formerly known as Agricultural Development Bank of Pakistan (ADBP), Commercial banks, cooperatives and different Rural Support Programs running in different parts of the country. The second sector is informal sector. Commission agents, input providers, village shop-keeper, friends and relatives are the major sources of informal loans. Most of the credit is being disbursed to people through informal sources. It is because of the inadequacy of formal sector to reach the poor coupled with lengthy and cumbersome process of loaning. It is therefore required that there must be some institutions which can act like an informal sector and do not have complicated procedures and have easy access to people at grass root level. So in 1980's government encouraged the establishment of different Micro Finance Institutions (MFI's) and Non Government Organizations (NGOs) to provide loans to poor people. Their initial aim was to create employment opportunities through self help basis. Success of these projects led government to allow more NGOs in other parts of the country. Since then NGOs along with government's Rural Support Programs (RSPs) have been the major players in this sector. Agha Khan Rural Support Program (AKRSP) established in 1984 under the NGOs setup inspired government to start National Rural Support Program (NRSP) in 1991-92, in eight districts of Pakistan with the objective to empower people through self help basis. Initially it was financed by the government. Now it has expanded to 43 districts. NRSP disburse credit in localities through Community Organizations (CO's). It also provides technical support to community organizations in different sectors [7].

Credit has been recognized as a powerful instrument for poverty alleviation in the developing countries but it was observed that the public sector financial institutions mostly favor large scale borrowers [8]. The micro-credit schemes usually are successful in improving the incomes of poor households [9]. The success and appropriateness

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[1]These may be short to medium term programs which address directly the problem e.g. cash transfer schemes or micro-credit schemes etc.

of micro-credit as a tool to reduce poverty in Pakistan largely depends on local circumstances [10]. These micro credit programs are trying to best serve the purpose and most of the times they had positive impacts on the socio-economic conditions of the target population but only to some extent [11] and the population living below poverty are very high i.e. about 22% [5]. It is, therefore, necessary that the impact of such programs be assessed to come up with suggestions for improvement. The study in hand was specifically designed to look in to one of these programs having a central thought to suggest betterment in these programs. Keeping in view the importance of micro-credit the study in hand was undertaken with the objective to focus on the impact of micro-credit on the poverty status of people with particular reference to District Jhelum of the Punjab province, Pakistan formulating the hypothesis as;

H$_0$: Micro-credit has no impact on incomes of target population
H$_1$: Micro-credit significantly increases the incomes
And
H$_0$: Micro-credit has no impact on poverty
H$_1$: Micro-credit significantly helps to reduce poverty

METARIALS AND METHODS

District Jhelum was selected for data collection through Random Sampling Method. The district contains four tehsils (Sohawa, Dina, Jhelum and Pind Dadan Khan), out of these two i.e. Jhelum and Dina were randomly selected. From each tehsil four community organizations (COs) of NRSP were selected randomly and from each CO twenty respondents from rural areas were interviewed randomly (ten loanees and ten non-loanees[2]). In this way eighty respondents were interviewed from each tehsil making the total sample of one hundred and sixty. All the respondents were small farmers. The collected data were then analyzed using a two phase multiple regression model. The main reason behind splitting the analysis is to get to know the real situation because credit does not have a direct impact on poverty but it has an indirect impact through increasing the income. In first phase the impact of credit along with other variables on income was assessed. In case of credit-income relationship one can criticize the inclusion of credit directly in the production function but it is justified on the following reasons;

(I) credit support farmers to use the resources efficiently by surmounting the constraints to purchase inputs and use them optimally— *"... this sort of effect would shift the farmer along a given production surface to a more intensive and more remunerative, input combination"* [12]; (ii) by purchasing a new technology e.g. high-yielding variety of seed, laser land leveler etc., it helps farmers to move closer to the production frontier and shift the entire input-output frontier *"... in this regard it embodies technological change and a tendency to increase technical efficiency of the farmers"* [12]; and (iii) credit can also enhance the use of fixed inputs e.g. land, labor, management, etc. *"... that raises family consumption and productivity"* [12]. These reasoning imply that micro-credit not only increases management efficiency but also affects the resource allocation and profitability. So in the first phase the impact of credit on income was assessed using the following equation;

$$Y_1 = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \mu_1 \qquad (1)$$

Where;
Y_1 = Income per season (in Rupees (Rs.))
(Manually calculated, both of loanees and non-loaneed, through structured questionnaires i.e. the income of borrowers was assessed during the interview by asking occupation and sources of income including farm and non-farm income, assets, expenditure from the produce in home etc.)
X_1 = Loan participation for agricultural enterprise (0 for not taken and 1 for taken)
X_2 = Farm area (in Acres)
X_3 = Education level (number of schooling years)
X_4 = Expenditures per season (in Rs.)
β_0 = Intercept
$\beta_1, \beta_2, \beta_3$ and β_4 = Parameters of the model to be estimated
μ_1 = Disturbance term

And in the second phase the impact of income along with other variables on poverty status was assessed using the following function;

$$Y_2 = \beta_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \mu_2 \qquad (2)$$

Where the variables were;
Y_2 = Poverty (0, 1) (On the basis of one dollar a day)
X_6 = Income
X_7 = Size of house hold
X_8 = No. of dependent
X_9 = No. of earners

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[2]Non-loanees were selected for the sake of comparison

β_5 = Intercept

$\beta_6, \beta_7, \beta_8$ *and* β_9 = Parameters of the model to be estimated

μ_2 = Disturbance term

For such a function where a dichotomous variable is included as dependent variable both OLS and logistic models can be used to test relationships with a binary criterion because the results are almost similar in both of these cases [13].

RESULTS AND DISCUSSION

First Phase of Analysis: The results of the first phase regression analysis are presented in Table 1. The intercept of the model is 1099.24, which represents the expected income of people when other variables are kept constant or zero. The coefficient of Loan Participation (X_1) is 428.91 which indicates that if the amount of loan is increased by Rs. 1 it will increase the income of the loanees by about Rs. 429/-. The coefficient of Farm Area (X_2) is 406.84. This coefficient indicates that income (Y_1) of the loanees will increase by Rs. 406.84 by increasing the farm area by 1 acre. The coefficient of education level (X_3) is 383.64 which indicates that the income will increase by Rs. 383.64 by increasing the education level by 1 year. The coefficient of business expenditures (X_4) is 0.981 which shows that increasing the business expenditures will be having a minimal affect on the incomes. These results are backing the earlier studies [10, 14-16].

The overall significance of the model can also be judged from the value of coefficient of multiple determination i.e. R-square. The value of R-square is 0.837 which indicates that about 84 percent of the total change in income is explained by these four independent variables.

Second Phase of the Analysis: The results of the first phase regression analysis proved that the micro-credit has a very positive impact on the incomes of people. The results of second phase are presented in Table 2. The intercept of the model is 0.575, which represents the expected occurrence of poverty when other variables are kept constant or zero. The coefficient of income (X_6) is -1.6047 which indicates that if the income increases by Rs. 1 it will reduce the instance of poverty. The coefficient of size of house hold (X_7) is insignificant. The coefficient of number of dependents (X_8) is 0.06 indicates that the poverty rate will increase with addition of a new dependent in the household. The coefficient of number of

Table 1: Coefficients of Regression 1

	Coefficients	T	Sig.
Constant	1099.24	15.477	0.000
X_1	428.91	3.024	0.003
X_2	406.84	3.742	0.000
X_3	383.64	3.487	0.001
X_4	0.981	25.515	0.000
	$R^2 = 0.837$	F = 358.89	

Table 2: Coefficients of Regression 2

	Coefficients	T Stat	Sig.
Constant	0.575	4.513	0.000
X_6	-1.6047	-0.228	0.001
X_7	0.009	0.540	0.540
X_8	0.060	2.916	0.004
X_9	-0.197	-6.377	0.000
	$R^2 = 0.673$	F = 23.094	

Table 3: Constraints and Problems Mentioned by Loanees

Sr. No	Nature of Constraints	Loanee Farmers Reporting	%age
1	Lack of proper guidance	49	61
2	Bribery	16	20
3	Less loan than required	39	49
4	Delay in disbursement	44	55
5	Lack of publicity	40	50
6	High interest rate	55	69
7	Indifferent attitude of officials	11	14

earners (X_9) is -0.197 which shows that the increase in earning members of the household helps to reduce the poverty. The results are backing up the earlier studies [17].

The overall significance of the model can also be judged from the value of coefficient of multiple determination i.e. R-square which is 0.673 indicating that about 67 percent of the total change in income is explained by these four independent variables.

During course of data collection many constraints faced by the loanees in obtaining the loans were reported. Table 3 reveals the situation of problems of loanees regarding the borrowing. The table shows that 61 percent of loanees pointed out that there is not a proper mechanism for the provision of technical training especially for small enterprises related to agriculture. Twenty percent of the loanee respondents reported that bribery is a serious problem. About half of the loanees complained that the loan which they can get is not

sufficient enough to meet their needs. Fifty five percent of the respondents were of the view that there is undue delay in the disbursement procedure while half of them complained about the lack of publicity due to which they remained ignorant about the facility in the beginning of the season. A big majority of the respondents i.e. 69 percent said that the interest rate was too high. As far as the cooperation of banks' staff is concerned, 14 percent of the loanees were not satisfied with the behavior of concerned officials.

Conclusions and Policy Implications: The present study was designed to know the impact of micro-credit on the poverty in Pakistan. This primary data based study was conducted in District Jhelum under the NRSP. For the sake of analysis it was tried to check the indirect impact of the micro-credit in an indirect way so multiple regression model was used in two phases. The results suggested rejecting the null hypothesis, i.e. micro-credit has no impact on the incomes and poverty. Alternatively, we accepted the alternative hypothesis that micro-credit significantly helps to increase the incomes hence reduces the poverty. It was an indirect kind of approach as the impact of credit is always considered as indirect so credit positively helped to increase the incomes of poor and as a result of this increased income the incidence of poverty is being reduced. Despite these positive results the overall picture of poverty in the country shows a very bad picture which needs to be addressed. Followings are the suggestions based on the overall poverty situation in general and constraints mentioned by loanees in particular;

- The system should ensure the easy availability of credit and in proper amount.
- Technical assistance and training regarding the allied agricultural enterprises must be provided to all interested borrowers.
- Interest rates need to be reduced substantially.
- Credit group leaders should be given more monetary incentives for managing credit groups.
- Loan size should be increased according to the requirement of rural entrepreneurs.
- Credit repayment schedule should be improved so that borrowers could repay loan after they are able to sell their produce at economically reasonable price.
- There must be continuity in the policies regarding the micro-credit for NRSP and similar programs.

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