

RESEARCH ARTICLE

# Microfinancing for Poverty Reduction: An Empirical Study of Rural Areas of Tehsil Gujrat-Pakistan

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## Abstract

Micro finance has achieved an everlasting fame in all over the world by producing considerable evidence of poverty eradication. It provides financial services to those people, who have low incomes, minimal assets and don't have collateral to borrow a credit from commercial banks. The aim of the microfinance is to remove poverty by empowering poor and the unbanked with a little amount of credit. Present study is conducted to find out the impact of micro credit by Punjab Rural Support Programme (PRSP) in the rural areas of Tehsile Gujrat. A sample of 316 borrowers was randomly selected. Sample unit was the borrower who had completely repaid all the loan installments one month before from the day of survey. Survey technique was used and face to face interviews were conducted to collect the relevant information. Descriptive statistics was used to analyze the characteristics of the borrowers while for econometric analysis, Multiple Linear Regression Model (MLRM) was used to know the impact of micro credit. The results of econometric analysis show that 1% increase in credit will bring 79% increase in the income of the borrowers. Education has also positive impact on income of the beneficiaries. MLRM analysis shows that increase in 1 year/ (1 level) of education will increase in income by 26.8% of the borrowers while family size is found insignificant. The study not only reveals the impact of micro financing but also gives some suggestions/policy implications for the betterment of micro credit schemes.

**Keywords:** *Multiple linear regression model (MLRM), Micro financing, Poverty, Punjab rural support Programme (PRSP).*

## Introduction

The population of Pakistan is more than 187 million and majority of the people are living in rural areas. Poverty is a crucial phenomenon which has destroyed not only our economy but also the nation. It is more curses in rural areas because of the lack of the opportunities available there. Rural areas are less developed with least infrastructure, low literacy rate, poor health and educational facilities, unavailability of sufficient food, safe drinking water, improper sanitation system and the most hazardous unemployment; therefore poverty is more dangerous in rural areas. "One who has lack of basic human needs to spend prosperous or satisfied life; he/she is considered a poor". Poor people cannot borrow loans from formal and informal financial sectors. Formal sector includes commercial banks that provide large loans at high collateral and poor people are not able to pay any collateral. Similarly, informal lenders charge high interest and keep their adults labor as collateral. Therefore, exploitation of informal lenders, high interest rate and adults as collateral etc staves off most of the poor people from such formal and informal financial sources. In such crucial circumstances, Microfinance Sector and Small Medium Enterprises (SMEs) came in front to help

the poor to get rid from vicious circle of poverty. "Microfinance is a financial activity to provide small collateral free loans or financial services to the people who have low incomes, minimal assets and who are unable to acquire loans from formal commercial banks because of the demand of high collateral and tight conditions of security" In all over the world, microfinance sector is serving the poor population with the goal of eradicating poverty. Poverty is diversified term but the most common type of poverty is income based poverty. Microfinance increases the incomes of poor borrowers by providing credit for small business, livestock and farming etc. The credit is collateral free and available on easy installments. After proper utilizing the credit incomes of the borrowers' increase which ultimately help them to come out from poverty trap. Hence, microfinance is playing an extensive role in eradication of income based poverty. The concept of Micro Finance was introduced by the well known Bangladeshi Economist Dr. Muhammad Yunas in 1976 who has been awarded by noble peace price in the year 2006 for this innovative concept. Dr. Yunas established the Grameen Bank in Bangladesh with the unique approach of Microfinance. Grameen bank provides loans to the

poor people without any collateral. The loans are group based on the behalf of mutual guarantee of the group member for each other. Peer pressure of the borrower's community urges the members to pay back the installments of loan in time. These loans enable the poor to increase their incomes as well as living standard. Now the concept of micro finance has been broaden and adopted in many developing economies. The concept of Microfinance in Pakistan emerged by the establishment of first two leading institutions Agha Khan Rural Support Programme (AKRSP) and Orangi Pilot Project (OPP). Agha Khan Foundation established Agha Khan Rural Support Programme (AKRSP) in 1982 which was the first rural development programme and also introduced social mobilization and group lending methodology in Pakistan. In 1990's rural support programmes were established for microfinancing in each province of the country. In 2001, Government of Pakistan established a regulatory frame work to promote microfinance sector throughout the country. Now the RSPs and Microfinance Institutions (MFIs) are working to eradicate poverty from Pakistan. The study in hand is conducted to reveal the impact of microfinancing by Punjab Rural Support Programme (PRSP) in rural areas of tehsil Gujrat.

### Hypothesis

H<sub>0</sub>: Microcredit has not significant impact on income level of the borrowers.

H<sub>1</sub>: Microcredit has significant impact on income level of the borrowers.

H<sub>0</sub>: Education has not positive impact on income level.

H<sub>2</sub>: Education has positive impact on income level.

H<sub>0</sub>: Family size has no impact on income level.

H<sub>3</sub>: Family size has significant impact on income level.

Micro credit is not only the factor which reduces the poverty; at the same time there are some other factors which may affect the poverty. Therefore, two other important factors that are Education and Family size also taken into account along with microcredit to find out the impact on poverty reduction.

### Literature Review

Rahman [1] examines that the number of microfinance's beneficiaries belong to rural areas. Poor people of rural areas have adequate skills but not able to fulfill the collateral requirements of commercial banks to borrow a credit in order to start any new business. Ultimately, they remain poor and spend their whole lives in the trap of poverty. Now Poor can borrow the loans from

MFIs without any collateral or security which are helpful in income generating activities. Microfinance programs are very much supportive for the poor and fruitful in reducing poverty. Bashir et al [2] find out that poverty has become a crucial phenomenon in Pakistan. Unavailability of the credit is a basic reason of poverty. Poor people don't have financial resources to run a small business, due to which they are unable to earn even the basic necessities of life. Microcredit schemes play a vital role to cut back from the vicious circle of poverty. It provides an opportunity to poor people to get education, health care, better food, and high standard of living. Abiola and Salami [3] conclude that the purpose of microfinance is to give credit to very poor for economic and social poverty alleviation and the well being of the overall society. Microfinance programs provide loans to the small businessmen and the people who have house hold activities and their incomes are less than the minimum wages or they get occasional wages. Microfinance is a financial support to the poor so that they can run their own small business to earn livelihood. Discussing about the Microfinance Banks (MFBs), they state that the goals of MFBs are to provide small loans to the poor people who cannot afford collateral.

### Objectives of the Study

- To know the characteristics of the beneficiaries.
- To know the impact of micro financing on poverty eradication.
- To give suggestions/policy implications for improvement of PRSP and the micro finance sector in Pakistan.

### Material and Methods

A sample of 316 borrowers was randomly selected and face to face interviews were conducted to get the relevant information through a detailed questionnaire. First of all, a pilot project (test run) of 25 beneficiaries was carried on. After the feedback of the test run the final questionnaire was designed. Descriptive statistics was used to know the characteristics of the borrowers while Multiple Linear Regression Model (MLRM) was used for empirical analysis of the data. All the sample borrowers had repaid the entire borrowed amount one month before the day of survey. The main reason behind choosing such borrowers was to know the real impact of micro credit because the borrower who is free from the burden of repaying the loan installments can better explain the impact of credit.

### List of Variables

## Dependent Variable

$y$  =Income of household after credit (Monthly income from farm and non-farm sources is calculated and used in the analysis.)

## Independent Variables

$\alpha$ = $y$  - intercept

$X_1$ =Credit (Total borrowed amount of credit)

$X_2$ =Education Level (Number of schooling years)

$X_3$ =Family Size (Total members in a house sharing income and expenditures)

$\mu$ =Error term

$y = \alpha + b_1X_1 + b_2X_2 + b_3X_3 + \mu$

( $b_1, b_2, b_3$  are the coefficients of parameters.)

## Results and Discussions

### Characteristics of the Borrowers

#### Age

Age of the sample borrowers was asked during the interview, following results are found.

**Table 1: Age pattern**

Age	Percentage %
21-30 Years	21
31-40 Years	38
41-50 Years	27
51-60 Years	14
Total	100

The age limit for the borrowers by PRSP is from minimum 21 year to maximum 65 years. It is because of a teen ager is not so much mature that he/she can use the credit in positive income generating activities. So a chance of loss in any business is high in this age. The person having above 65 year of his/her age is not physically strong to actively participate in any economic activity. The above table shows that most of the borrowers are lies in the age group of 38 to 40 years.

#### Marital Status

Marital status of the borrowers was asked during the interview. Following results are found.

#### Family Structure

Family structure was also asked to the borrowers, following results are found. The table shows that most of the borrowers who borrowed a credit are living in nuclear family system.

**Table 2: Marital status**

Marital Status	Percentage %
Married	82
Single	11
Widowed	4
Divorced	3
Total	100

The above table shows that most of the borrowers are found married because most of the married people need a credit to enhance their small scale business to earn profit for their families.

**Table 3: Family structure**

Family Structure	Percentage %
Joint family system	37
Nuclear family system	63
Total	100

#### Education

It is found that the education of the sample borrower lies between illiteracy to twelve year of schooling and no one has above twelve year of education. It shows that in rural areas education level is very much low.

**Table 4: Education**

Education	Percentage %
Illiterate	63.30
Primary	15.05
Middle	11.70
Matric	7.90
Intermediate	1.60
Total	100

The above table shows that most of the borrowers are found illiterate. Minimum education level is zero years of schooling while maximum education level of sample borrowers found twelve years of education.

#### Decision to Borrow a Loan

Decision about borrowing a credit was also asked to the sample borrowers. Following results are found.

**Table 5: Decision to borrow loan**

Decision Status	Percentage %
Mutual Decision	86
Independent Decision	14
<b>Total</b>	<b>100</b>

In rural areas, people are strictly bound to their norms and values. They do not take any decision without the mutual consent of their families. The above table shows that most of the borrowers mutually decide to borrow a credit.

#### Family Size or Size of Household

Family size is also an important characteristic which affect the income of the household.

**Table 6: Family size or size of household**

Family size	Percentage %
4-6 Family Members	22
7-10 Family Members	72
11-13 Family Members	6
<b>Total</b>	<b>100</b>

It is found that in rural areas most of the people have large family sizes. The above table shows that minimum family size consists of 4 family members while maximum family size is 13 family members.

#### Number of Earners in a Family

It is revealed that in rural areas most of the families are dependent on one earner. Borrowers were asked about the number of earners in their families, the following results are found:

**Table 7: Number of earners in a family**

Number of earners	Percentage %
One Earner	84
Two Earners	14
Three Earners	2
<b>Total</b>	<b>100</b>

The above table shows that 84% borrowers have one earner in their families, 14% have 2 earners while only 2% borrower families have 3 earners. It implies that most of the families are dependent on one earner.

#### Amount of Credit

PRSP is providing loan up till Rs.25, 000/-. The borrowed amount of credit by sample borrowers is found as follows. The table shows that 73% sample beneficiaries borrowed Rs.10,000/- to Rs.15,000/- amount of

**Table 8: Amount of credit**

Amount of credit (In Rupees)	Percentage %
10,000-15,000	73
16,000-20,000	11
21,000-25000	16
<b>Total</b>	<b>100</b>

credit, 11% beneficiaries borrowed Rs.16,000/- to Rs.20,000 while 16% beneficiaries received Rs.21,000 to Rs.25,000 amount of credit.

#### Loan Repayments Pattern

Pattern of loan repayments was also asked during the interviews and verified from the office of PRSR.

**Table 9: Loan repayments pattern**

Repayments patterns	Percentage %
Regular	86
Irregular	14
<b>Total</b>	<b>100</b>

The above table shows that most of the borrowers were remained regular in repaying the monthly installment of the loan while some borrowers could not repay one or two installments in time because of some illness or emergency.

#### Empirical /Econometric Analysis

Primary data is interpreted by using software "Statistical Package for Social Sciences" (SPSS). A data, which a researcher is going to be interpret; must be reliable.

#### Reliability

Reliability is defined as the extent to which a test produces same results on the repeated trials. As Mehrens and Lehman [4] state the reliability means the degree of consistency between two measures of the same thing. The variables which are going to be analyzed by a researcher must have internal consistency that indicates the reliability of the variables. Among the internal consistency methods; Cronbach's alpha [5] is the most common method to measure the reliability. Higher value of coefficient of Cronbach's alpha shows the higher reliability. Nunnaly [6] indicated that 0.7 is the acceptable reliability coefficient. To measure the reliability of the primary data Cronbach's alpha is used. Results are as follows.

**Table 10: Results of reliability statistics**

Reliability statistics	
Cronbach's Alpha	Number of Items
0.809	4

The above table shows that coefficient of Cronbach's alpha is found 0.809 which indicates the reliability of the data.

### Results of MLRM

The results of MLRM are presented below.

**Table 11: Results of MLRM**

Model (Variables)	Beta coefficients	t-value	Sig (p-value)
Constant	1.920	3.526	.000
Credit	.790	27.639	.000
Education	.268	7.619	.000
Family Size	-.061	-.862	.389

Dependent Variable: Income F-value = 514.315  $R^2 = .832$  The above table shows that the constant's coefficient of the model is 1.920. It shows the income of the beneficiaries while keeping all other independent variables zero. It is significant at 5 percent level of significance. Credit is found highly significant at 5 percent level of significance having t-value 27.639. Beta coefficient of credit is .790 which indicates that 1% increase in credit will bring 79% increase in the income of the borrowers. So,  $H_1$  is accepted against  $H_0$ . Education is also an important variable for income. The table shows that education is found significant at 5 percent level of significance having t-value 7.619. Beta coefficient of education is .268 which shows that increase in 1 year/ (1 level) of education will increase income by 26.8% of the borrowers. So,  $H_2$  is also accepted against  $H_0$ . Family Size is found insignificant. The table shows that the t-value of family size is -.862 with p-value .389 which is greater than 5 percent level of significance. Beta coefficient of family size is found -.061 which indicates that by adding 1 more member in family size; income will decrease by

6.1%. As the characteristics of the borrowers show that in rural areas people have large family sizes depending on one earner, so increase in one more dependent member in family will decrease the income. So,  $H_3$  is rejected against  $H_0$  and found that family size does not have positive impact on income of the beneficiaries. F-value shows the overall significance of the model. In this model, F-value is found 514.315. It is significant at 5 percent level of significance which indicates that the overall model is significant and best fit. The value of  $R^2$  is found .832 which indicates that 83.2% change in dependent variable (income) is due to these above mentioned independent variables while 16.8% is error term (other independent variables) which is not captured in the model. So, the estimated regression line for the study is as following:  $y = 1.920 + 0.790 x_1 + 0.268 x_2 - 0.061x_3 + \mu$

### Conclusion and Suggestions

The present study was conducted to know the impact of microfinance in rural areas. The study concludes that microcredit plays an important role in poverty eradication by enhancing the income of the poor people. It enables the poor people to enhance and use their adequate skills in income generating activities. It makes possible for the poor to earn impel profit from small business, build assets, manage risky situations, acquire better opportunities of education and health care, quality of food and nutrition for their families. All these lead to improve the living standard of borrowers in the society. Education is also found significant and has positive impact on income of the borrowers while family size is found insignificant. Some suggestions are given below for the betterment of PRSP and microfinance sector in Pakistan.

- Amount of credit may be increased as per needs of the borrowers.
- Interest rate may be significantly decreased
- PRSP may be launched some programmes for the guidance of the farmers about the enhancement of crop productivity.
- Qarz-i-Hasna Schemes may also be introduced.
- Government may encourage to other MFIs to launch micro credit programmes in rural areas.

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