

## Micro Credit: An Instrument for Poverty Reduction

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**Abstract:** In Pakistan 34 percent or 49 million people are poor. Poverty has increased significantly in the 1990's. Inadequate resource allocation towards education, health care and rural development has been adding more number in the pool of impoverished and poverty stricken. The population of country is a double-faced phenomenon. It is an asset and a vital factor in the development process on the one hand and a rapid population growth can hamper development on the other. Credit is an important instrument of acquiring command over the use of working capital, fixed capital and consumption goods. The present study was aimed to assess the impact of the micro-credit intervention by PRSP for micro enterprise development. The results showed that PRSP's micro-credit program had significant impact on people belonging to very poor category.

**Key Words:** Micro-Credit, Poverty Reduction, Hamper Development

### Introduction

Around the world millions of people are looking for jobs in order to break the vicious circle of their poverty but most of them do not have access to the permanent jobs in the established enterprises with social protection services, decent working conditions and a reasonable remuneration to sustain a family. Unemployment rate is higher in developing countries than in the developed countries. In Pakistan unemployment has increased from 1.8 million in 1995 to 2.4 million in 2001 in absolute terms (Government of Pakistan, 2001). There is a growing concern that the increased gap between the income levels of the people is the result of inequitable distribution of financial resources especially in developing countries. Presently total population of the world is 6067 million people, of which 3684 million people are living in Asia and 144.12 million people are living in Pakistan (World Population Data Sheet, 2000). About 99 percent of the hungry people (those people that cannot meet their daily nutritional requirements) of the world live in developing countries; and above 36 percent of the hungry people of the world live in South Asia of which, 6 percent live in Pakistan. These 6 percent constitutes 34 percent of Pakistan's total population. This 34 percent equals 49 million, 37 percent of the rural and 28 percent of the urban population in Pakistan is poor. Inadequate resource allocation towards education, health care and rural development has been adding more number in the pool of impoverished and poverty stricken (Sheikh, 2001).

The population of country is a double-faced phenomenon. It is an asset and a vital factor in the development process on the one hand and a rapid population growth hampers the development on the other. Urban rural population breaks up of Pakistan reveals that share of rural population has declined from 71.7 percent in 1981 to 67.5 percent in 1998 or by 4.2 percent. The share of urban population accordingly has increased from 28.3 percent in 1981 to 32.5 percent in 1998. This suggests that every third person now lives in a city or town. In rural areas labor force participation

rate is higher than urban areas as agriculture is more of a family occupation than mere a work. Women's participation rate is lower than men's due to cultural taboos and non-availability of suitable job opportunities (Amin, 1995). The total number of employed persons in urban areas has increased to 11.8 million in 2001 from 9.6 million in 1995. Rural employment increased from 22.2 million in 1995 to 27 million in 2001. Agriculture still absorbs a little less than half of the labor force and potential to absorb more if properly and scientifically planned. Self-employment is an important vehicle for arresting the rising trend in unemployment. Emphasis would be placed on income generation activities for promotion of employment at the grass root level for which loans would be given on soft terms. In this connection, a micro-credit bank has been established with an allocation of US\$100 million (Government of Pakistan, 2001).

There is a general consensus that rapid sustainable growth must be proceeded by direct poverty alleviation and anti-poverty programs. Among such programs are social sector development programs e.g. education, health, sanitation and increased provision of credit to the poor for investment in micro-enterprises (Sheikh, 2001). The poverty trends in Pakistan are given in Table 1.

Table1: Poor Households as Percentage of Total Population

Year	Total	Rural	Urban
1963-64	40.24	38.94	44.53
1966-67	44.50	45.62	40.96
1669-70	46.53	49.11	38.76
1979-80	30.68	32.51	25.94
1984-85	24.47	25.87	21.17
1987-88	17.32	18.32	14.99
1990-91	22.11	23.59	18.64
1992-93	22.40	23.35	19.50
1996-97	31.00	32.00	27.00
1998-99	32.60	34.80	25.90
1999-2000	33.50	-	-

Source: Government of Pakistan, 2002, Arif *et al.*, 2001.

The results of Table 1 show that poverty has increased significantly in the 1990's rising from 17.32 percent in 1987-88 to 22.40 percent in 1992-93 and further to 31 percent in 1996-97. The recent estimates suggest that poverty has further increased up to 33.5 percent in 1999-2000 (Government of Pakistan 2001). The rise in poverty is mainly attributed to declining economic growth, persistence of severe macro economic imbalances, reduction in the flow of remittances from overseas Pakistani workers, lack of social safety nets and poor governance (World Bank 1995, Anwar, 1996, Government of Pakistan 2001, and Arif et al. 2001). As a part of seven point agenda of present government, poverty alleviation is one of the high priority goals of the government. As a first step in this direction Pakistan poverty Alleviation Fund (PPAF) has been set up with an allocation of Rs. 35 billion. The program comprises five major components namely 1 Establishment of micro finance/Khushhali bank. 2 An integrated small works programs. 3 Food support program 4 Revamping the Zakat system, and 5 higher allocation for social programs in the federal budget.

Credit is an important instrument of acquiring command over the use of working capital, fixed capital and consumption goods. Income distribution effects of credit delivery may depend on a recipients of the credit b price paid of the borrowed funds c productivity of the activities financed by credit.

The Government of Punjab decided to start Punjab Rural Support Program (PRSP) in 1998 with an allocation of Rs. 500 million. Its main purpose was to alleviate poverty from rural areas. Presently PRSP is working in eight districts of Punjab including Faisalabad. In Pakistan, it is impossible for the poorest segments of the rural population to access credit from formal financial institutions. Collateral requirements, cumbersome procedures, corruption, remoteness of the villages, illiteracy, and an array of other factors have inhibited the poor from accessing credit to optimally realize their potential. The credit program of PRSP aims to rectify this indifference towards the rural poor by providing them with easy access to credit. In this regard, PRSP takes no financial collateral. It relies on what is termed as social collateral, accepting the written guarantee of the Community-Based Organization (CBO's) that the loanee will repay the loan. PRSP has signed an agreement with Habib Bank Limited where by the latter has extended a credit line of Rs. 500 million at a mark up of 14% per annum to PRSP against PRSP's endowment fund (PRSP 1999). PRSP is providing technical support to the Community-Based Organizations (CBO's) in the following sectors.

- Social mobilization
- Rural credit and enterprise development
- Human resource development
- Natural resource development
- Physical infrastructure and technical development
- Social sector services

The present study was aimed to assess the impact of the micro-credit intervention for enterprise development and evaluate the extent of change in income of the sample respondents before and after the micro-credit intervention in Faisalabad region. The paper is divided into 4 major sections. The section II explains the methodology implied which is followed by results and discussion in section III. The conclusions are drawn in the last section of the paper.

#### **Materials and Methods**

The universe of the study consisted of all those areas where Punjab Rural Support Program in the Faisalabad region was in operation. Currently PRSP Faisalabad is carrying out its Rural Support Program in three field units namely Satiana, Salarwala and Faisalabad. The population consisted of all the loanees in enterprise sector in the three field units. There were 1011, 521 and 22 loanees in enterprise sector in Satiana, Salarwala and Faisalabad field units respectively. The study was conducted in the field units of Satiana and Salarwala. Due to time and resource constraints a cut off limit was applied to extract a sample size. The cut off limit was governed by single criteria i.e. to include those loanees who had repaid their loans fully by the end of March 2001.

#### **Sample Size**

The cut off limit resulted in the ultimate sample of 250 loanees belonging to 50 community organizations. From the sample 90 respondents were selected purposively by keeping in mind the following constraints:

1. Non-availability of borrowers
2. Physical constraints
3. Time and resource constraints
4. Social and psychological barrier

#### **Data collection:**

For the purpose of data collection, a comprehensive questionnaire was developed with the collaboration of PRSP in order to have grip on the tangible and intangible benefits intended to be accruing to the loanees from their enterprise activities. In order to extract correct information direct interviews, well-developed questionnaire and triangulation techniques were employed to incorporate the information necessary for the achievement of objectives. The information given by the respondents were confirmed either from the manager of the CBO's or members in order to arrive at some conclusion. The data collected was broadly categorized on the basis of CBO's type and a comparison was done between males and females. The data was processed by using the computing package SPSS.

#### **Statistical Tools Used for the Analysis of Data**

**Simple Correlation:** The term correlation is used to describe the strength of relationship between variables. The measure of closeness is called coefficient of correlation. Its value lies between -1 and +1 indicating strongly negative and strongly positive correlation.

**Regression analysis:** Simple linear regression was used to study the relationship between the response variable

and explanatory variable. The following was the functional form of the model:

$$Y_i = \beta_0 + \sum_{i=1}^n (\beta_i x_i) + \mu_i$$

Where:

- Y<sub>i</sub> = Dependent variable
- X<sub>i</sub> = Independent variable (Loan Size)
- β<sub>0</sub> = Constant term
- β<sub>i</sub> = Estimated coefficients
- μ<sub>i</sub> = Random error term

### Results and Discussion

The Table 2 shows the relationship between household size and earning hands. It is clear that majority of the respondents had household size of 5-10 members and earning hands from 1-2. This shows that there was a high dependency ratio i.e. more number of children and old people, who were unable to do work. In rural areas due to lack of education and awareness, people do not bother about the number of children and hence they have to bear the burden of high dependency ratio.

Table 2: Cross Table between Households and Earning Hands

Household Size Category	Earning Hands			Total
	1-2	3-4	>4	
< 5	8	2	0	10
5-10	57	13	2	72
> 10	2	4	2	8
Total	67	19	4	90

From Table 3, it is clear that majority of the male and female loanees were married. Only 5 respondents were single in each of the male and female category. Usually married persons have more responsibilities as compared to unmarried persons, that is why they try to enhance their income by initiating or expanding their business in order to fulfill the material requirements of their families.

Table 3: Cross Table between Marital Status and Sex of Respondents

Sex of respondent	Single	Married	Widow/ Widower	Divorced	Separated
Male	5	52	1	-	-
Female	5	24	1	1	1

### Initiation of Business Activities:

With average loan size Rs. 18480, twenty five loanees (about 28 %) reported initiation of numerous income generating activities including animal business, cloth shop, embroidery machine, fruit shop, general store, grocery store, milk selling, motor cycle rickshaw, sewing machine, Tonga, vegetable selling, video center, wan wail machine, wheat grinder and wood business. Most profitable business activities were barber shop,

billiard games, general store, vegetable selling, video center, wheat grinding machine and wood business. Each business activity was resulting in monthly income equivalent to or more than Rs. 4000. Two activities i.e. video center and wood business each resulted in monthly income of Rs. 6000. On an average basis, PRSP's loan contributed 70% in business volume i.e. Rs. 32,480. Average monthly income ranged from Rs. 1000 to 6000 out of which PRSP's contribution varied from Rs. 900 to 6000. Average loan for initiating the business activities was Rs. 18480. Minimum income was from the sewing machine (cloth sewing activity) because female loanee mostly owned this business and there was not a common practice among female for hiring the services of tailor in rural areas. One loanee could not continue the business of fruit shop because of his illness so his business flopped.

Expansion of Existing Business: There were 60 loanees who took loan for the expansion of their existing business activities. The business of three loanees failed due to mismanagement and illness. The credit taken from PRSP for the expansion of existing business activities was used in 23 enterprises. On an average, a loan of Rs. 21533 was used for the expansion of the existing business activity, which resulted in change of business volume equivalent to Rs. 23807. The average monthly change in income was Rs. 2617. The maximum monthly change in income was Rs. 10,000 for tyre shop and minimum change in monthly income was Rs. 900 for barbershop. Other activities, having change in income equivalent to or greater than Rs. 1000 included carpet business, paper making, repairing and selling of sewing machines, etc. The maximum change in business volume was for the general store that resulted in Rs. 57,500 and corresponding change in income was equal to Rs. 3500 per month for the same business activity. On an average basis, a loan of Rs. 21,533 for the expansion of business resulted in change in business volume of Rs. 23,807. The average, PRSP's loan contributed 47.08 percent towards the change in business. Out of total loan advanced, 26 percent was used for initiation of business activities and 74% was used for the expansion of their existing business.

### Gender Based Analysis

For males who initiated their business activities with the loan of PRSP, the maximum change in income was Rs. 6,000 per month and the minimum income was Rs. 1,200 per month. The average monthly income of male borrowers was Rs. 3635.17. Conversely, the maximum income was Rs.4000per month for female borrowers. The minimum income was zero because their business failed due to one or other reason. The average monthly income of male borrowers was greater than those of female borrowers i.e. Rs. 3,635 compared to Rs. 1,818.18 because of the fact that females were also engaged in other household activities.

For the expansion of business activities, maximum change in income was Rs. 10,000 for males and minimum was zero because one person had partnership in his business and his partner withdrew his share and the activity stopped due to lack of financial resources. The average income earned by female loanees was less than the average income earned by males i.e. Rs 2309

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for males compared to Rs. 2786. Out of total 85 respondents who invested in their existing business, 39 were males and 21 were females, similarly for initiation of business activities 14 were male and 11 were females who actually invested their borrowed money.

### Correlation Analysis

Correlation analysis was carried out to test the hypothesis that PRSP's credit had significant role or contribution in increasing or expanding the business volume, which in turn caused an increase in income. Separate correlation analysis was carried out for initiation and expansion of business. Table 4 shows the correlation results for initiation of business.

Table 4: Correlation for Initiation of Business

	Loan size	Type
Business volume	0.654**	Moderately +ve
Change in income	0.658**	Moderately +ve
Change in income attributable to PRSP	0.503*	Positive

\*\*\* Significant at 99 percent level

\*\* Significant at 95 percent level

\* Significant at 90 percent level

It is clear that size of loan had positive correlation with volume of business, change in income and income attributable to PRSP in case of initiation of a business. The correlation results were positive but weaker than that computed by Iqbal (2000). Depending upon the nature of the business being started, the size of the business and change in income may change in positive direction but here this direction is also +ve but moderate. The reason could be that the entrepreneur would not have the required experience or skill about the business, so there could be more risks confronting to the entrepreneur. So due to above-mentioned reasons, the loanee might have run his business more carefully.

The results of the correlation for expansion of business are shown in Table 5. The results show that the size of loan had moderately positive correlation with change in business volume and change in income but the size of loan had positive correlation with the income attributable to PRSP. All variables were significant at the 99 percent significance level.

Table 5: Correlation for Expansion of Business

	Loan size	Type
Change in business volume	0.652***	Moderately +ve
Change in income	0.4625***	Moderately +ve
Change in income attributable to PRSP	0.397***	Positive

\*\*\* Significant at 99 percent level

### Regression Results

The regression results of all equations are presented in Table 6. The results of equation, which estimated,

loan size and income reveals that the coefficient of income was positive and highly significant. The estimated coefficient shows that with one unit increase in size of loan, the resultant increase in income was 0.107. The  $R^2$  for this equation indicated that 43 percent of the variation in the income is explained by the loan size. The results for loan size and change in income show that the coefficient of change in income was positive and significant at 99 percent level. The value of  $R^2$  was low i.e. 0.18, showing that only 18 percent of variation in the change in income is attributed to the loan size while the rest of variation in dependant variable is explained by other variables not included in the equation. The results of 3<sup>rd</sup> equation show that with one unit increase in loan size, business volume increased by 1.88 units. The coefficient was positive and highly significant. The value of  $R^2$  was 0.427, indicating that about 43 percent variation in business value was explained by loan size. The last equation shows the impact of loan size one change in business volume. The coefficient of change in business volume was positive and highly significant. The coefficient reveals that with one unit change in loan size, there was 0.83 units change in business volume. The coefficient of variation i.e.  $R^2$  was 0.426, indicating that there 43 percent variation in the change in business volume is explained by the loan size only.

Table 6: Regression Results Independent Variable = Loan Size

Dependent Variables	Constant	Co-efficient	$R^2$	F-Ratio
Income	855.22 (1.6)	0.107*** (4.2)	0.434	17.6***
Change in Income	1348.9 (3.17)	0.058*** (3.55)	0.181	12.59***
Business Volume	-2291.17 (-0.24)	1.88*** (4.14)	0.427	17.17***
Change in Business Volume	5912.512 (1.81)	0.831*** (6.55)	0.426	42.96***

**Shift in Poverty Status:** For the purpose of analysis, the loanees were grouped into four categories i.e. (1) Well off, (2) Better off, (3) Poor and (4) Very poor. Tables 7 show the results of shift in poverty status of all borrowers.

When asked about their perception regarding the shift in their poverty status, 25.55 percent loanees felt that there was not any significant impact of loan on their standard of living and they remained in the same category 2 i.e. better off. Few respondents (5.55%) moved from poor category to better off category. There was maximum numbers of respondents (33.33%) who retained their status of poor, according to their perception. About 24 respondents shifted from very poor category to poor category. Ten respondents (11.11%), replied that there was no impact of loan on their living status and they remained very poor. In this category, there might be people who utilized the loan for other non-productive purpose. From the above discussion it is clear that at least 30 percent of respondent were either better off or moved upward from the status of very poor. From the above discussion it could be concluded that PRSP's micro-credit program had significant impact on very poor people.

Table 7: Shift in Poverty Status of the Respondents

Category/Status	Frequency	Percentage
Moved to category 1 (well off)	-	-
Remained in category 2 (better off)	23	25.56
Moved from category 3 (poor) to category 2 (better off)	05	05.56
Remained in category 3 (poor)	30	33.33
Moved from category 4 (very poor) to category 3 (poor)	22	24.44
Remained in category 4 (very poor)	10	11.11
Total	90	100

### Conclusions

- From the respondents included in analysis (85 respondents) 25 loanees took loan for initiation of business activities with average loan size of Rs. 18,480.00 and 60 loanees took loan for the expansion of their existing business activities with average loan size of Rs. 21,533.00.
- In case of initiation of business activities, average loan size of Rs. 18,480.00 resulted in the business volume of Rs. 32,480 and the contribution of the loan was 70 percent. The maximum change in income was Rs. 6,000.00. Average monthly income was Rs. 2,836.00.
- For expansion of existing business activities average loan size of Rs. 21,533.00 resulted in change in business volume of Rs. 23,807.00. Effect of credit was 47.08 percent. Maximum change in income was Rs. 10,000. In the analysis of major activities, 12 activities used Rs. 9,37,000
- With an average loan size of Rs. 36,038.46. Average change in income per activity was Rs. 3,732.69.
- Effect of credit in change in business volume and change in income was 58.54 percent. The minimum change income was 1000 and the maximum Rs. 10,000.
- Gender based analysis revealed that 14 males and 11 females took loan for initiation of business activities and 39 males and 21 females took loan for expansion of existing business activities.

- Average loan size for males was greater than females in both initiation and expansion categories. Similarly average change in business volume and income was greater for male than for females. Correlation analysis was carried out to check the hypothesis that PRSP's credit has significant contribution towards business
- Volume and change in income. A moderately positive correlation was found.
- It could be concluded that PRSP's micro-credit program had significant impact on very poor people.

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