

Microfinance Route to Income Generation and Poverty Reduction: Evidence from District Faisalabad, Pakistan

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ABSTRACT

In this study, income generating and poverty reduction role of micro credit is studied and empirically analyzed through regression and correlation methods. The empirical evidence showed that there is a positive impact of micro credit on income and consumption smoothening provided it is utilized in a rational way. As well as the appropriateness of micro credit as a tool to reduce poverty largely depends on local circumstances.

Key Words: Microfinance; Income generation; Poverty; Pakistan

INTRODUCTION

We are living in an era of scientific inventions and globalization. In spite of tremendous glory in science and technology, 800 million people are bound to sleep hungry and 791 millions of such a chunk of population lives in developing countries that constitute 90% of the starved. Out of them, 284 millions live in South Asia with 49 millions in Pakistan which makes 6% of the world's total population and 17% of the South Asia's poor population. Poverty is undoubtedly a rural phenomenon in Pakistan comprising 28.35% poor population as against 13.6% urban poor (GOP, 2000).

Emerging modernization in agriculture increased inequity, causes labour displacement and due to the absence of non-form activities, unemployment and poverty increased. One of the key factors for this persistent poverty is the absence of liquidity, which helps in stimulating the economic activity. Two sources of credit are available to the farming community, these include institutional and non-institutional agencies. Non-institutional credit is timely available when and whenever the need arises but the creditors charge substantially higher rate of interest on such loans. On the other hand, institutional credit takes some time for sanctioning formalities but relatively low rate of interest is charged. Institutional credit for agriculture facilitates growth in employment and output. This however, requires rapid and broad-based land and labour augmenting technological change. In this way, institutional credit would have more favorable impact on output growth and employment (Malik *et al.*, 1991).

There are 5.1 million farms in the country and 93% of these are small and marginal farms accounting for 60% of the total cultivated area. The small farmers whose farm income is very low and family size is relatively large are generally constrained for want of funds to meet their farm input requirements like seed, fertilizer, pesticide, etc. They are not able to use inputs at the desired level for higher production (Sarwar, 2001).

Rural poor need credit to allow investment in their farms and small businesses, to smooth consumption and to reduce their vulnerability to weather and economic shocks (FAO, 2000). Micro-credit has tremendous impact on the economic life of the people in the rural areas. A remarkable increase in the level of farmers' incomes, improvement in the quality of life and the increased value of assets have been observed and the provision of the credit has uplifted the socio-economic status of small and marginal farmers (PRSP, 1999; Nazli, 2000). Therefore, micro-financing is fulfilling the agricultural and non-agriculture needs by providing the poor with access to financial resources.

The appropriateness of micro credit as a tool to reduce poverty depends on local circumstances as well. However, in its most modest form, it fills gap in credit delivery that are not addressed by other providers; and, in its most ambitious form, it attempts to catalyze economic development that will reduce rural poverty (FAO, 2000). There is a general agreement that micro-credit can reduce vulnerability as it allows people to smooth their cash flow and access to money when they need it (Aslam, 2001). Keeping the effectiveness of micro credit, as a tool to reduce poverty, in view, the above study was planned with the objectives of making an assessment of poverty reduction by micro financing to the poor households and the impact of microfinance approach of credit facilitation on income level of poor households as well as on consumption smoothening.

MATERIALS AND METHODS

The present study was designed to be conducted in Faisalabad district. The study was restricted by geographical, economical and dynamic constraints. It was not possible to conduct survey in entire Faisalabad district for this reason three branches of National Bank of Pakistan (NBP) were chosen where maximum loans were disbursed. These were the best model institutions to achieve the study objectives for framing any policy diagnosis. A detailed comprehensive questionnaire was developed and face-to-face interviews were conducted. Seventy respondents were

interviewed randomly and these respondents belonged to the villages around district Faisalabad.

The data obtained was categorized broadly in two groups i.e., Agricultural and non-agricultural. Agricultural group included the farmers who had taken loans for agricultural inputs. Non-agricultural group included all the income generating activities except farming practices in the field. On the basis of monthly per capita income three groups were also formed; Better off, Poor, Very poor. The categorization was based on income sufficient to meet the basic necessities of life that is \$1 per day per capita. The respondent whose monthly income per capita was Rupees 1800 or above were considered better off as these respondents were seen to have easy access to the basic needs of life. The respondents whose per capita monthly income was below Rs. 1800 and above Rs. 1000 were categorized as poor, while very poor were the respondents having per capita income less than Rs. 1000.

Difference of means test was applied to see the significant impact of credit on these aforementioned groups. For this, mean value of two variables was compared and paired T-test was used. Correlation and regression analyses were also used with the help of Statistical Procedure.

Correlation was calculated between micro credit and change in income as well as change in income and change in consumption. In Regression analysis income was regressed against the credit to calculate the impact of credit on income.

RESULTS AND DISCUSSION

Data presented in Table I show that 17 respondents (about 24%) were already better off. Most of them were the president or general secretary of community organizations because control of community organization should be in the hands of reliable person who have some influence on the community. Out of the total seventy respondents thirty four (about 49%) were very poor and nineteen (about 27%) were poor. More than seventy five percent loanees were under poverty line, which is a sign that bank is following its objective and sanctioning maximum loans to the poor people.

If we critically examine the data presented in Table II we observe strong correlation between household size and poverty. Most of the households having less than five members fall in the category of better off i.e., 52.63%. About 88% of the poor households (including both poor and very poor) have large family size i.e., greater than five. The above result implies that family size is a good determinant of poverty. It was observed during the survey that illiteracy was the characteristics of poor and very poor households. The heads of the 50% respondents were illiterate. Out of literate respondents only 33% were above metric and 14% could pass the matriculation examinations.

Income is very important determinant of poverty. The most important effect of borrowing from a micro credit program is on per capita income. The average monthly per

capita income of very poor house holds increased from Rs. 572 to Rs. 864. This proportionate increase was 51%. While average monthly per capita income of poor households increased from Rs. 1221 to Rs. 1628 and the increase was 33%. The average per capita income (monthly) of better off households, increased from Rs. 2595 to Rs. 2940 and this increase was 13.5%. Critical observations given in the Table III shows that percentage increase in per capita income of very poor is higher than that of the poor and better off households. It implies that very poor households got maximum benefit from micro financing.

The overall impact of micro financing on per capita income was also positive. It increased from Rs. 1221 to Rs. 1628 and overall percentage increase was 33%. The results revealed highly significant impact of micro financing on per capita income.

Increase in expenditure on the basic necessities of life i.e., cloths, education and utility bills indicates that the

Table I. Layout of Poverty Status of the Households

| Poverty Status | Frequency | Percent |
|----------------|-----------|---------|
| Better Off | 17 | 24 |
| Poor | 19 | 27 |
| Very Poor | 34 | 49 |
| Total | 70 | 100 |

Table II. Layout of Poverty Status in terms of Household Size and Educational Composition

| Household Size | Frequency | Poverty Status | | |
|-------------------------|-------------|----------------|------------|------------|
| | | Better off | Poor | Very poor |
| <5 | 19 (27.14)* | 10 (52.63) | 7 (36.85) | 2 (10.52) |
| 5-10 | 35 (50) | 4 (11.44) | 19 (54.28) | 12 (34.28) |
| >10 | 16(22.85) | 3 (18.75) | 8 (50) | 5 (31.25) |
| Educational Composition | | | | |
| Illiterate | 35 (50) | 4 (11.43) | 14 (40) | 17 (48.57) |
| Primary | 19 (27.14) | 9 (47.36) | 4 (21.05) | 6 (31.57) |
| Metric | 10 (14.28) | 5 (50) | 3 (30) | 2 (20) |
| Above Metric | 6 (8.57) | 4 (66.67) | 2 (33.33) | 0 (0.0) |

* Figures in parenthesis showing percentages.

Table III. Layout of Poverty Status of the Households Before and After Micro financing

| Particulars | Per Capita Income | | | |
|------------------------------------|-------------------|----------|------------|---------|
| | V. Poor | Poor | Better off | All |
| Before credit | 572 | 1221 | 2595 | 1221 |
| After credit | 864 | 1628 | 2940 | 1628 |
| T-test Paired | -7.13* | -5.1918* | -5.89* | -11.69* |
| Per Capita consumption expenditure | | | | |
| Particulars | V. Poor | Poor | Better off | All |
| Before program | 401 | 634 | 595 | 482 |
| After Program | 540 | 744 | 659 | 607 |
| T-test Paired | 7.08* | 5.51* | 1.90 | -8.80 * |
| Per Capita Food Expenditure | | | | |
| Particulars | V. Poor | Poor | Better off | All |
| Before program | 146 | 201 | 282 | - |
| After Program | 206 | 241 | 284 | - |
| T-test Paired | -8.2 | -6 | -0.53 | - |

* Significant at 1% level.

living standard of the respondents have been increased. The Table III shows that after credit average per capita expenditure of very poor households were increased from Rs. 401 to Rs. 540 and this increase was 34%. Poor households' average per capita expenditure was increased from Rs. 634 to Rs. 744 (that increase is about 17%) and better off households' average expenditure per capita increased from Rs. 595 to Rs. 659 which is about 11%. Here, again increase in very poor households' average per capita expenditure is higher than that of the poor and better off households. It implies higher consumption preference for very poor and poor. It may be due to the reason that their expenditures on the basic needs were already very low. And as far as the better off households concerned they were already spending much on the basic necessities of life. Therefore, maximum part of the increased income was saved or consumed on luxury things by the better off group.

Poor household that largely relied on agriculture were observed to reduce the effects of the seasonality of agriculture by diversifying into rural non-farm activities. Before credit their consumption pattern was dependent upon the seasons. Consumption was more in the months immediately following the harvesting than that of the other months. But micro-credit generated income and employment flows that do not co vary with income and employment from agriculture thus help in smoothening consumption and labour supply. It was reported by nineteen respondents that their consumption pattern were remained smoothed after benefiting from micro-financing program.

It is important to see that how much food expenditure was increased as a result of micro financing. The positive and significant impact of micro financing on food reflects the positive effect of these programs on human health development which leads to increase in productivity and thus ultimately reduction in poverty because low productivity is also one of the causes of high incidence of poverty. Increased spending on food indicates that members of the households are taking more calories thus reducing the incidence of caloric based poverty and better food will, intern, results into their good health. Table III is showing more significant changes in the expenditures of very poor and poor households on food. But figures of data present in Table III are not showing significant change in expenditure of better off households on food. It may be due to the reason that these households were already spending feasible amount of income on food items.

Statistical Verification of Results

Correlation analysis. Correlation analysis is used to determine whether two ranges of data go together. Here, the purpose of correlation is to test the hypothesis that micro finance has changed personal income of the loanees (Table IV). Test of correlation found strong relationship (0.859) between micro credit and change in income.

The other hypothesis that change in income should result in change in consumption on the basic needs thus alleviating caloric based poverty and poverty of

opportunities. The relationship was found positive (0.7024) which implies that greater part of changed income being consumed by respondents.

Regression analysis. Regression analysis is used to observe the relationship between dependant and independent variables. Here, a very simple regression model is used to see the dependency of changed income on the credit.

It is observed from the values in the Table V and VI that increase in income is a function of credit. It is highly dependent on the credit as positive sign of coefficient of credit shows that increase in credit by one rupee brings change in income by 0.13 rupees.

Regression analysis of change in consumption against change in income showed that consumption is a function of income. Change in income will lead to change in consumption. Co-efficient of change in income is positive and reveals that one rupee increase in income will increase consumption by 0.14 rupees. Value of R² is positive and 49% showing that change in consumption depends on change in income.

The impact of micro-financing program can be seen by studying two factors i.e., growth potential of the activities financed by these programs and the extent of credit market imperfections that are resolved with enhanced availability of credit. Theoretically the micro credit program can stimulate economic recovery through easing liquidity constraints. During survey it was observed that many of the farmers could not achieve their maximum due to lack of finance otherwise they had full potential to obtain maximum output. It was also the liquidity constraints that compelled the farmers to stop production on some of the potential land areas. There are many farmers who want to initiate new income generating agriculture and non-agriculture activities

Table IV. Correlation Analysis

| Correlation | Value | Type |
|---|--------|-------------------|
| Credit vs change in income | 0.859 | Strongly positive |
| Change in income vs change in expenditure | 0.7024 | Positive |

Table V. Regression analysis of change in income against credit

| Variable | Coefficient | T value | P value |
|------------------|-------------|---------|---------|
| Intercept | -563.173 | - | - |
| Change in income | 0.1383 | 11.66 | 0.00 |

R² = 0.7390, R² Adjusted = 0.733
Standard error = 626.1509, Observation = 70

Table VI. Regression analysis of change in consumption against income

| Variable | Coefficient | T value | P value |
|-----------------------|-------------|---------|---------|
| Intercept | 72.101 | - | - |
| Change in consumption | 0.14 | 6.83 | 0.00 |

R² = 0.49, Standards error = 43.68
F-ratio = 46.74, Observation = 70

but they could not do so due to non-availability of finance. The micro credit was ranging from Rs. 5000 to Rs. 30000. There was a dire need felt among the respondents to raise this level so as to meet the rising demands of their household needs as well as inflation.

CONCLUSION

Concept of supervised agriculture credit should be used while chalking out plans for micro financing. Although the procedure for loaning was not complex however still there is a need to make it easier. As agricultural holdings in our case was too small so the micro credit can help the small farmers to invest in small and medium enterprises as well as in their land by purchasing inputs to mitigate the shocks and vulnerability faced by them.

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