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Role of Microfinance in Eradication of Poverty: An Empirical Analysis from Uttar Pradesh

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Abstract:

Microfinance sector has grown rapidly over the past few decades. It has become very popular in today's market especially in credit markets as a tool for poverty eradication. However, its impact is being still questioned and it also differs from one area to another. The main aim of this research is to evaluate the role of Microfinance in poverty reduction in Uttar Pradesh. Cross sectional interviewed survey of 180 respondents on stratified random method from both urban and rural areas was done. Annual reports and the sector reports published by regulatory bodies, MFI associations etc. were also used. The study revealed that Microfinance is playing a large role in the poverty reduction. Yet some improvements are to be made.

Keywords: Microfinance, Uttar Pradesh, poverty eradication.

1. Introduction

Microfinance sector has grown rapidly over the past few decades. Nobel Laureate Muhammad Yunus is credited with laying the foundation of the modern MFIs with establishment of Grameen Bank, Bangladesh in 1976. Today it has evolved into a vibrant industry exhibiting a variety of business models. Microfinance Institutions (MFIs) in India exist as NGOs (registered as societies or trusts), Section 25 companies and Non-Banking Financial Companies (NBFCs). Commercial Banks, Regional Rural Banks (RRBs), cooperative societies and other large lenders have played an important role in providing refinance facility to MFIs. Banks have also leveraged the Self-Help Group (SHGs) channel to provide direct credit to group borrowers.

With financial inclusion emerging as a major policy objective in the country, Microfinance has occupied Centre stage as a promising conduit for extending financial services to unbanked sections of population. At the same time, practices followed by certain lenders have subjected the sector to greater scrutiny and need for stricter regulation. Subsequently, they will be able to combat the poverty and satisfy their households' needs independently and consistently. In contrast, microfinance institutions will have the ability to develop their capacity through imposing a small ratio of interest on the given loans. A large size of microfinance studies from various disciplines suggest that microfinance has significant impact on poverty reduction as well as household wellbeing at deferent levels such as asset acquisition, household nutrition, health, food security, children education, women's empowerment, and social cohesion (Armendáriz de Aghion and Morduch 2000; Armendáriz and Morduch 2005, 2010; Hashemi, Schuler, and Riley 1996; Littlefield et al. 2003; Roodman and Morduch 2009). However, recently the impact of microfinance has been questioned and many studies argue that the impact of microfinance is divergent between positive, no impact and even negative impact (Angelucci, Karlan, and Zinman 2013; Ganlea, Afriyie, and Segbefia 2015; Rooyen, Stewart, and de Wet 2012). The literature acclaims that the impact of microfinance works differently from one context to others and the impact is dependent on the population density, attitudes to debt, group-cohesion, enterprise development, financial literacy, financial service providers and other (Armendáriz, Aghion, and Morduch 2005).

2. Literature Review

Various studies have been conducted highlighting the importance and use of credit particularly in rural areas; Puhazhend and Badatyain (2002) assessed the impact on SHG members in three eastern states, i.e., Orissa, Jharkhand and Chattisgarh. The study also reported an increase household savings and assets for the SHG members after they formed the group. Out of the total sample, 45 per cent reported an increase in assets after joining a SHG maintains that a review of the genesis and development of SHG's in India reveals that the existing formal financial institutions have failed to provide finances to landless, marginalized and disadvantaged groups (moneylenders because loan could be taken at any time as and when needed for any purpose. (Rao 2002). An another study observed that micro-financing through informal group approach has effected quite a few benefits viz.: (i) savings mobilized by the poor; (ii) access to the required amount of appropriate credit by the poor; (iii) matching the demand and supply of credit structure and opening new market for FI's; (iv) reduction in transaction cost for both lenders and borrowers; (v) tremendous improvement in recovery; (vi) heralding a new realization of subsidy less and corruption less credit, and (vii) remarkable empowerment of poor

women (Dasgupta2000) .an informal arrangement for credit supply to the poor through SHG's is fast emerging as a promising tool for promoting income generating enterprises. And reviewed the initiatives taken at the national level with a view of institutional arrangements to support this Programme for alleviation of poverty among the poor, with focus on women, Nagayya (2006).

The advocates of microfinance argue that access to finance can help to substantially reduce poverty (Dunford, 2006; Littlefield, Morduch, &Hashemi, 2003). Access to finance may contribute to a long-lasting increase in income by means of a rise in investments in income generating activities and to a possible diversification of sources of income; it may contribute to an accumulation of assets; it may smooth consumption; it may reduce the vulnerability due to illness, drought and crop failures, and it may contribute to better education, health and housing of the borrower. In addition, access to finance may contribute to an improvement of the social and economic situation of women. Finally, microfinance may have positive spill-over effects such that its impact surpasses the economic and social improvement of the borrower. The positive assessment of the contribution microfinance can make to reducing poverty has convinced many governments, NGOs, and individuals to put efforts in supporting MFIs and their activities.

3. Hypotheses and Methodology

Based on the study, following hypothesis was framed:

The loan provided by MFIs has positive impact on household income of borrowers.

Basically, the scientific approach of impact assessment methodologies such as randomized control trait and quasi-experimental are important to assess the impact of microfinance intervention. Yet, it is very difficult to employ these type of methods and also costly (Karlan 2001; Swain and Varghese 2009). The use of new clients as control group is more efficient for saving time and cost and researcher does not need to go over longitudinal survey (Karlan 2001). The new clients were used as control group in many microfinance studies to name (Brannen 2010; Hiatt and Woodworth 2006; Karlan 2007; Kondo et al. 2008; Swain and Varghese 2009). This study used new clients as a control group

3.1. Sample Selection

A survey of 180 respondents was conducted in August 2015. Separate samples were drawn, using a random multistage cluster design to include four districts. The sample consisted of old members from urban and new clients from urban, old members from rural and new clients from rural.

4. Data Analysis

Table 1, illustrates simple comparison in the demographic characteristics between in urban and rural. First, the urban clients were divided into two groups' namely 83 of old clients who joined MFI scheme in 2010 and still active and 32 of new clients who joined MFI in the early of 2015 and have not used their loans yet. Second, rural clients were divided into two groups namely 42 of old rural clients who joined MFI scheme in 2010 and still active and 23 of new rural clients who joined MFI scheme in 2015 and have not used their loans. The analysis process contains four control variables related to respondents demographic and socioeconomic characteristics. These are respondents' age (coded in single year), number of children (coded number), number of dependents in household (coded in numbers), have saving account (coded dummy in which those who have saving account 1, and these who don't have 0), and marital status (coded binary in which married women coded 1 and others 0), the level of education coded ordinal in which (1 refers to secondary and above, 2 middle school, and 3 primary school). This comparison allows for initial estimations of program impact.

| Variables | Old clients Urban | New clients Urban | Old clients Rural | New Clients Rural |
|-----------------------------------|-------------------|-------------------|-------------------|-------------------|
| N | 83 | 32 | 42 | 23 |
| Mean of Age | 38.55 | 37.29 | 38.6 | 36.9 |
| Household size | 5.05 | 4.86 | 1.91 | 1.96 |
| Saving account | 56 (67.5%) | 17 (52.9%) | 16 (40.6%) | 5 (23%) |
| Access to loan before joining MFI | 36 (43.3%) | 17 (52.9%) | 17 (41.7%) | 12(52%) |
| Access to Business training | 52(62.8%) | 17 (52.1%) | 22 (53.3%) | 10 (44%) |
| Secondary school and above | 33 (39.2%) | 15 (46.4%) | 15 (37.8%) | 9 (41%) |
| Middle school | 42 (51.1%) | 15 (46.4%) | 20 (48.9%) | 2(51%) |
| Primary school | 8 (9.7%) | 3 (7.1%) | 5 (13.3%) | 8 (8%) |
| < RS6K | 9 (11.4%) | 9 (28.6%) | 9 (21.7%) | 13 (54%) |
| > RM 10K | 61 (74.2%) | 22 (67.9%) | 31 (66.7%) | 10 (40%) |
| > RM 20K | 12 (14.4%) | 1 (3.6%) | 5 (11.7%) | 1(6%) |

Table 1: Descriptive Analysis

Table (1) also demonstrates some selection bias, the differences between the four groups is not large. Members in urban and rural are one to two years older in average than new clients and there are no significant differences in the number of children and household dependents. The percentage of those who have secondary school and above is slightly higher among new clients as compared to old clients. The percentage of those who accessed to loan services before joining MFI scheme is slightly higher among new borrowers in both urban and rural by approximately 9% and 10% respectively. The percentage of those who accessed to business training is

relatedly higher in old clients either in urban or rural by approximately 10%. Finally, the percentage of those who have saving account is higher in the old clients either in urban or rural by 14% and 18% respectively.

4.1. Household Income in Urban

The distribution reveals that the probability of the model chi-square 60.17 is $0.000 < 0.05$. The null hypothesis that states there is no difference between the model without independent variables and the model with independent variables was rejected. The Deviance statistic here demonstrates that the model is a good fit of the data ($p = .524$, which is significantly higher than .05). The Nagelkerke R^2 value of .145 indicates the model is useful in predicting household income. Finally, the classification table for analysis of the effect of microfinance on household income as shown in Table 2 suggests a 73% correct prediction, which is well above the criteria for chance accuracy of 57.4%. This indicates that the criteria for classification accuracy are satisfied for the analysis. As shown in Table 2, model one shows the relationship between access to MFI loan and the household income of low income women (those whose household income equals or less RS 10K) at urban areas. The odd ratio (Exp (B) indicates that likelihood of the household income of treatment group (old clients) increase by 1.5 as compared to new clients. Model one also shows other control variables that have positive significant effects on household income. For example, the odd ratio of 1.3 indicates that increase the size of household by one unit leads to increase household income by 0.3. The odd ratio of 2.1 indicates that access to business training leads to increase household income by 1.1. However, the odd ratio of 0.489, indicates that access to saving account leads to decrease household income by 0.51. This indicates that women who have saving account used their surplus in saving account rather than contributing to household income. In addition, model two shows the relationship between access to MFI loan and the household income of women borrowers whose household income equals or less than RS 20K. The odd ratio (Exp (B) of 2.3 indicates that likelihood of the household income of treatment group (old clients) increase by 2.5 as compared to new clients. Model one also shows other control variables that have positive significant effects on household income. For example, the odd ratio of 1.1 indicates that increase the age leads to increase household income by 0.1. The odd ratio of 1.85 indicates that increase the size of household by one unit leads to increase household income by 0.85. The odd ratio of 2.7 indicates that access to business training leads to increase household income by 1.7%.

| Variables | Urban Household Income | | | | Rural Household Income | | | |
|-----------------------------------|------------------------|--------|---------|--------|------------------------|--------|---------|--------|
| | Model 1 | | Model 2 | | Model 1 | | Model 2 | |
| | Sig. | Exp(B) | Sig. | Exp(B) | Sig. | Exp(B) | Sig. | Exp(B) |
| Treatment group | 0.002 | 2.508 | 0.04 | 2.307 | 0 | 3.32 | 0.008 | 4.2 |
| Age | 0.161 | 1.031 | 0 | 1.103 | 0.718 | 1.007 | 0.419 | 1.02 |
| Household Members | 0.036 | 1.299 | 0.001 | 1.859 | 0.014 | 1.386 | 0.225 | 1.31 |
| Secondary school | 0.244 | 1.724 | 0.176 | 2.592 | 0.955 | 0.974 | 0.845 | 1.16 |
| Middle school | 0.27 | 1.661 | 0.242 | 2.251 | 0.792 | 1.127 | 0.889 | 1.11 |
| Primary school | | | | | | | | |
| Have saving account | 0.02 | 0.489 | 0.039 | 0.432 | 0.844 | 0.944 | 0.443 | 1.45 |
| Access to loan before joining MFI | 0.843 | 1.058 | 0.419 | 0.734 | 0.119 | 0.643 | 0.624 | 0.79 |
| business training | 0.01 | 2.092 | 0.01 | 2.733 | 0.418 | 0.778 | 0.873 | 0.92 |
| Intercept | 0.108 | | 0 | | 0.06 | | 0.005 | |
| Chi square | | | 60.17** | | | | 34.6*** | |
| Pearson | | | 0.524 | | | | 0.56 | |
| Deviance | | | 1 | | | | 0.945 | |
| Cox & Snell R^2 | | | 0.113 | | | | 0.116 | |
| Nagelkerke R^2 | | | 0.145 | | | | 0.138 | |
| Classification | | | 73% | | | | 61.4% | |

Table 2: The Effect of Exposure to MFI's Loan on Urban and Rural Household Income

4.2. Household Income in Rural

The distribution reveals that the probability of the model chi-square 34.61 is $0.000 < 0.05$. The null hypothesis that states there is no difference between the model without independent variables and the model with independent variables was rejected. The Deviance statistic here demonstrates that the model is a good fit of the data ($p = .945$, which is significantly higher than .05). The Nagelkerke R^2 value of .138 indicates the model is useful in predicting household income. Finally, the classification table for analysis of the effect of microfinance on household income as shown in Table 2 suggests a 61% correct prediction, which is well above the criteria for chance accuracy of 43.47%. This indicates that the criteria for classification accuracy are satisfied for the analysis. Table 3 shows model one which illustrates the relationship between access to MFI loan and the household income of low income women (those whose household income equals or less than RS 10K) at rural areas. The odd ratio (Exp (B) of 3.3 indicates that likelihood of the household income of treatment group (old clients) increase by 2.3 as compared to new clients. Model one also shows other control variables that have positive significant effects on household income. For example, the odd ratio of 1.38 indicates that increase the size of household by one unit leads to increase household income by 0.38. Table 5 shows model two which illustrates the relationship between access to MFI loan and the household income of women borrowers whose household income equals or below RS 20K at rural areas. The odd ratio (Exp (B) of 4.27 indicates that likelihood of the household income of treatment group (old clients) increase

by 3.27 as compared to new clients.

5. Conclusion

The findings of this study have several main implications for the academic, microfinance institutions and the policymakers. For the academic, this study added new evidence on the impact of microfinance on socioeconomic development of low income household especially women who cannot access to financial services due to their poverty. It helps them to diversify their household income and alleviate their poverty. In a nutshell, this study provides an insight about the role of microfinance on employment empowerment in the urban and rural developing state from the perspective of Uttar Pradesh context. It does so, through enhancing the socioeconomic wellbeing of poor and low income people especially women. It also plays a central role in creating jobs for those with low education. Therefore, microfinance opens an opportunity for all borrowers to play significant role in economic development. Despite of the significant impact of (MFI's) on the household income, a large number of old clients have not graduated from the scheme and become financially self-sufficient. This issue should be addressed by the policy-makers of UP government as well as the MFI's in how to transform the strategy of socioeconomic wellbeing from relying on credit as a source of income to build their capacity. Therefore, future research should pay attention on how to improve the sustainability and growth of micro and small businesses that financed by microfinance.

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