

Targeting and Socio-Economic Impact of Microfinance: A Case Study of Pakistan¹

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Abstract

An attempt has been made to quantify the targeting of the microfinance and its economic impact on the borrowers. The study has employed the Difference of the Difference Approach to find the net effect of microfinance by employing data collected by Pakistan Poverty Alleviation Fund. The study found that about 30 percent of the borrowers were poor, while 70 percent of the borrowers were non-poor. The impact on the poverty status was found to be marginal. The income of the poor borrowers hardly could grow by 2 percent during the study period. However, the consumption of the poor borrowers increased by 10 percent, which indicates that poor primarily borrow for smoothing their consumption. A significant net effect of microfinance on the consumption (6.71 percent) and income (about 6 percent) of non-poor borrowers has been found. Results show that poor non-borrowers were better off in terms of change in most of their assets compared to the poor borrowers. However, the net effect of microfinance on households durables of the non-poor borrowers was marginal' while the net effect of microfinance on few household durable items like fan, bicycle and sewing machine , of the poor borrowers was found to be positive. Compared to the poor borrowers, the majority of the poor non-borrowers reported no change in their livestock. Similarly, some poor borrowers reported positive changes in their livestock as compared to poor non

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borrowers during the study period, which shows positive net impact of microcredit on the livestock of the poor borrowers. Expenditures on social and other miscellaneous items were found to be very small.

Key Words: Microfinance, targeting of microfinance, Pakistan Poverty Alleviation Fund, Socio-economic Impact, Microfinance and the poor

JEL Classification: G21, O15

1. Introduction

The system of microfinance has been designed to give low income communities quick and easy access to socio-economic services, and providing opportunities for self-employment and thus a chance to uplift themselves out of poverty. The non-availability of the funds to the poor is considered the major constraint for getting beneficial opportunities. If the funds are made available to the poor then it is expected that they can change their destiny.

The microfinance industry has been growing rapidly in the developing countries especially after the experience of the Grameen bank in Bangladesh. The most recent entrants to the microfinance industry are commercial banks. This modality includes many variants: transformed microfinance NGOs, government owned development banks, reformed state banks and diversification into microfinance by existing commercial banks. Even big multinational banks such as ABN Amro, Citibank and Deutsche Bank are now involved in microfinance (Montgomery and Weiss, 2005). Moreover, big financial institutions, such as World Bank and the European bank for Reconstruction and Development, are also helping and backing the microfinance industry (The Economist, 2007).

Just like in other developing countries, microfinance institutions (MFIs) have been growing very fast in Pakistan. More than 18 different institutions are working for uplifting the poor masses. These include micro finance banks, banks with microfinance as separate product line; institutions specialized in rural support programs, such as National Rural Support program (NRSP) and Punjab Rural Support Program (PRSP)², and private NGOs. Moreover, an independent professionally managed unit, Pakistan Poverty Alleviation Fund (PPAF), has been established in 2000 for providing development support to civil society

² Each province has its own rural support program, such as Sindh Rural Support program (SRSP), Sarhad (now Khaiber Pukhtoonkhawa) Rural Support Program (SRSP), and Baluchistan Rural Support Program (BRSP).

organizations in the country. The target population of the PPAF project³ are the poor and disadvantaged rural and urban communities. The PPAF gives microcredit to group-based organizations called Community Organizations (COs) through its participatory organizations (POs). The group based procedure of loans⁴ serves as a social collateral. Peer pressure is used to monitor and enforce contracts and screen the credential of the borrowers.

Various aspects of microfinance and microenterprises have been discussed in the literature. Few empirical studies have quantified the impact of microfinance on poverty, some have focused on the relation between microfinance and socio-economic indicators, few concentrated on the sustainability and profitability, and few others estimated the return to capital invested in the micro enterprises (see Shirazi, 2008; Shirazi and Khan, 2009). The literature on targeting of the microfinance and the economic impact is limited (see section 2) with reference to Pakistan. Only Gallup Pakistan (2005) has estimated changes in income, consumption, assets and other social variables of the recipients of the microfinance in Pakistan. However, the study did not touch upon the issue of targeting of the funds and also did not decompose the borrowers in the category of poor and non-poor. Therefore this study will quantify the socio-economic impact of microfinance, if any, with reference to Pakistan. More specifically, the study will focus on impact of microfinance on the various income groups including poor borrowers, change in their income and consumption, and change of their assets, if any. In addition to that study will also explore the targeting of the funds i.e. who gets microfinance. The study will utilize the data collected by PPAF and employ Difference of the Difference Approach for the purpose of analysis.

After giving brief introduction in section 1, section 2 is devoted for review of the relevant literature. Section 3 discusses the methodology and data, while section 4 provides the data analysis. Section 5 concludes the paper with some policy recommendations.

³ PPAF Provides financial assistance to community organizations through four windows including :i. Lines of credit for expansion of poverty targeted Microcredit/enterprise development programs, ii Grants and Loans for community physical infrastructure on a cost-sharing basis, iii Grants for Health and Education on a cost sharing basis and ,iv Grants to strengthen and build the institutional capacity of partner organizations and communities. However, our analysis are limited to the microfinance due to the data constraint.

⁴ The average loan size was reported to be around Rs.11, 445 ranging from Rs.1000 to Rs.300, 000, while the average loan size desired by the borrowers was around Rs.24, 803 (see Gallup, 2005).

2. Review of the Literature

Various aspects of microfinance and microenterprises have been discussed in the literature. Few empirical studies have quantified the impact of microfinance on poverty, some have focused on the relation between microfinance and socio-economic indicators, few concentrated on the sustainability and profitability, and few others estimated the return to capital invested in the micro enterprises (see Shirazi 2008). Microfinance surely bring some changes, which could be positive or negative on individuals, households and institutions (see Cheston et al,1999 and Baker, 2000). Some studies have been focused on the growth of income and expenditures of the borrowers due to microfinance. Hulme and Mosley (1996), for instance, based on the counter factual combined approach, analyzed the impact of microfinance on poverty alleviation using sample data for Indonesia, India, Bangladesh and Sri Lanka and found that growth of income of borrowers always exceeds that of control group and the increase was larger for better-off borrowers. Similarly Mknelly et al. (1996) found positive benefits for the borrowers. Khandker (1998), based on double difference comparison between eligible and ineligible households and between program and control villages, focusing on Grameen, Bangladesh and Bangladesh Rural Advancement Committee (BRAC), found that microcredit alleviated poverty up to 5 percent annually. Furthermore, it was found, that a loan of 100 Taka to a female borrower, after it is repaid, allows a net consumption increase of 18 Taka. For Thailand village banks, Coleman (1999), using the same approach as that of Khandker (1998), found no evidence of any impact of micro finance. Another study by Coleman (2004), found that programs are not reaching the poor as much as they reach relatively wealthy people. Khandker (2003), found that microfinance helps to reduce extreme poverty much more than moderate poverty i.e. 18 percentage points as compared with 8.5 percentage points over seven years. Welfare impact is also positive for all households, including non-participants, as there were spillover effects.

Swain (2004) examines empirical evidence from literature to see the goodness of microfinance as a good poverty alleviation strategy. The evidence shows that microfinance influence is much felt by households at the brink of poverty line, instead of the core poor. Microfinance also reduces vulnerability and smoothing consumption of poor households. Navajas et al. (2000) examine the coverage of five MFIs in Bolivia and discover that majority of the borrowers were close to the poverty line. They also find that group lenders had more depth of outreach than individual lenders, urban poorest were more likely borrowers and rural borrowers were among the poorest of all clients. Also, Servon (1997) studies three MFIs in the US and finds that they served those at the margin of the mainstream economy,

not the very poor. Barnes et al (2001) examining MFI in Uganda found positive impact on enterprise level, increased in assets and net revenue, reduced financial vulnerability and increased value, skill and education. However, Schreiner (1999) finds that microfinance is not an effective tool for poverty reduction in US because of weak social cohesion, though it may move more people from welfare to self employment.

Mosley (2001), using data from Latin American countries, found a positive growth of income and assets of the borrowers than control group. The growth of income of the better-off borrowers was larger. However, he could not find any evidence of impact of microfinance on extreme poverty. Banegas et al. (2002), employing Logit model, found positive impact on the income of borrowers. Gallup Pakistan (2005), using counter factual , combined approach, found positive impact of PPAF microfinance on the consumption, income and assets of the borrowers. Shirazi and Khan (2009) employed Counter-factual “Combined approach” and found that Micro credit has reduced the poverty about 3 percentage points on average in Pakistan during 2003/4- 2004/5. Waqar et al (2008), estimated the long term effect of credit on growth and poverty in Pakistan, found out that agricultural credit has a positive impact on the Gross Domestic Product and its effect was more pronounced on the Agriculture GDP. Furthermore impact of agricultural credit in reducing poverty was significant both in the short run and long run Montgomery (2005) found a positive impact of Khushhali bank of Pakistan microfinance lending on the income, empowerment, health and education of the poor. However, he did not find any impact on consumption expenditure of the very poor. His study, in general, shows that even poorest of the poor benefited from the Kushhali Bank’s microfinance program. Saboor et al. (2009) estimated the impact of credit on the income and production level of small farmers using a randomly collected data from Rawalpindi District in Pakistan. The study reveals that for small farmers, credit was not a profiting activity. However, all respondents argued that their expenditures were increasing and they concluded that the credit system should further be improved so that the full benefits could be reaped both in the crop and livestock sectors and miss-utilization of credit by farmers could be minimized. Arif (2006) reviewed poverty reduction programs in Pakistan. He found that various criterion have been used for targeting the poor by different organizations. His review portrays that microfinance organizations use a loose criterion to identify poor and non-poor households. He further pointed out that “ evidence on the targeting efficiency of microfinance is slim”. Shirazi (2008) estimated that micro credit has increased the return to investment of the borrowers. In his study, using Pakistan Gallop data, 2005, he found that micro credit has increased the returns to investment of 79 percent of the borrowers in the range of 15 to 89 per cent per

year. Furthermore, the average weighted rate of return to investment was 4.57 per cent per month or un compounded rate of 54.89 per year. He found that female borrowers were making more return than their male counterparts.

Few studies, which have been summarized in Rahman (2004), have focused on the impact of microcredit on employment and increase in income and expenditure of the borrowers in Bangladesh. Results of these studies show that income of the recipients of micro credit has increased in the range of 8-40 percent. Micro credit has been successful in creating a positive impact on employment. Furthermore, Studies show that microcredit has positively contributed to the social investment, school enrolment, social empowerment, girls schooling and women's non-land asset. Some studies (Choudhury and Bhuiya, 2001; Barnes et.al, 2001; Chen and Snodgrass, 2001) have identified significant positive effects of microfinance on the human resource development among the participants in various countries. Chowdry and Alam (2007) found that the participation of a household in the micro credit program of the Grameen Bank increases consumption of that household significantly. However, there is non-linearity in the increasing trend in consumption of participating households. The consumption level goes up gradually with the increase in the membership duration up to five years of membership, but the growth rate starts declining after that period of membership. Similarly Naveed (1994), Amin *et.al* (1998) and Hashemi *et.al* (1996) found positive impact of microfinance on the women empowerment and welfare. Many impact studies have been made on Grameen bank from different perspectives, which conclude that Grameen Bank's members have been better off in terms of wide range of economic and social indicators including increased income, improved nutrition, better food intake, better consumption on clothing, better housing, lower child mortality, lower birth rate, higher adoption of family-planning practices, better health care, better access to education for the children, empowerment of women participation in social and political activities (see Yunus, 2004). Literature also highlight the beneficial role of microfinance for the poor by smoothing their consumption expenditure, increasing income and savings and diversify their income sources (see Dichter, 1999; Panjaitan et.al, 1999; Remenyi and Quinones Jr., 2000; Morduch, 1998, Khandker, 2003; McKerman, 2002 and Simonwtz, 2002). Wydick (1999) Examining the effect of microenterprise lending on child schooling in Guatemala using logistic regression found that access to credit increases the schooling investment on child and reduces the likelihood of withdrawing children from school to provide family labour.

Although the main objective of the microfinance is to make the funds available for investment in micro enterprises and thus lift the poor people out from poverty

and promoting growth, Dichter (2007) casts doubt and says that “recent experience and the economic history of rich countries, however, suggest that these expectations are unrealistic. Most people, poor or otherwise, are not entrepreneurs, so there is little reason to think that mass credit would in general lead to viable business start-ups.” Also not all lending programs have been successful. Fifty branches of two major MFIs in Krishna district were closed down by the authorities in Andra Pradesh as a result of allegation of charging interest and forced loan recovery (Shylendra, 2006). Credit at certain time may be disempowering, leading to increase tension within the family (Goetz and Sen Gupta, 1996). Researchers have found borrowers starving themselves to meet repayments and sometimes experienced the disgrace of losing their asset as collateral and loss of self-pride and even sleep as a result of worry on finding money to meet next installment (Copestake, 2002:752). Researchers have also queried group lending. Group lending can be costly to implement, with high default rate, insufficient number of borrowers in a group and perpetual reliance on subsidies (Bhatt and Tang, 2001).

Islamic Microfinance

It has been pointed out that traditional microfinance is reaching and benefiting more to better off than the poor. It is fact that traditional microfinance has been growing rapidly in third world countries, but this is also fact that Islamic microfinance has not got its momentum. Some Islamic microfinance institutions are working in some countries, but still these are in infancy stage, and weak in terms of resource and coverage.

Regarding Islamic microfinance in Pakistan, very few initiatives have been undertaken with very little coverage. Only a few NGOs operate on Islamic principles. The visible examples of Islamic microfinance in Pakistan can be counted as Islamic Relief Pakistan (IRP), Akhuwat, Karakoram Cooperative Bank (KCB), National Rural Support Program and Muslim Aid. All these use *Murābahah* as a mode of finance except Akhuwat, which provides interest free loan (*Qarḍ-e-Ḥasanah*). Akhtar et. al (2009) reported that Akhuwat is providing interest free loans for all poor (including the extreme poor) and helping them to get out of poverty. However, their study finds declining growth of loan portfolio with the sharp decline of equity growth over the last five years, which will constraint the financial stability in the future. To overcome this problem, they suggested integration of Islamic microfinance with NGOs, Non-profit Organizations (NPOs), *Zakāt*, *Awqāf* and with *Takāful* as well as with professional training and capacity building institutions of Pakistan to provide Islamic Micro financial services to the

poorest of the poor under one roof. On the other side Rural Development Scheme (RDS) of Islamic Bank Bangladesh Limited (IBBL) has not only been treated as a sustainable MFI in the rural development and poverty alleviation of Bangladesh with a short span of time of its establishment but also successful in increasing the household income, productivity of crops and livestock, expenditure, and employment (Parveen, 2009; Rehman and Fariduddin, 2010). An important study has been conducted by Obaidullah (2008) with detailed case studies of RDS of IBBL, the KOSGEB of Turkey and the linkage model of Bank Indonesia. The RDS has been successful by using Shari'ah compliant model. He observed that RDS has been using *bay' mu'ajjal* as the only mode of finance, and it needs diversification in the use of other Shari'ah compliant models. The author suggested that the IDB members countries may learn and replicate the success of the KOSGEB model for growth oriented enterprises and the Bank Indonesia linkage model for the provision of microfinance especially Shari'ah compliant microfinance.

The general picture that emerges from the above review of literature is that opinion differs on the real impact of microfinance. Most of the studies are related with the developing countries and specially Bangladesh. The literature on targeting of the microfinance and the economic impact is limited with reference to Pakistan. Therefore, this study is devoted for the purpose.

3. Methodology and Data Set

3.1. Methodology

In this study a counter-factual “Combined approach” has been employed to study the economic impact of PPAF micro credit on status of the households. This approach combines the “with-without approach” and the “before–after approach”. The “with–without approach” provides information of the status of borrowers (target group) and compares it with the status of non–borrowers (control group). The “before–after” approach makes a comparison of the change in the status of group before borrowing and after borrowing for the time period in which the borrowers benefited. There are several other factors that affect the income, consumption and assets of all households overtime irrespective of whether they borrowed or otherwise. This methodology will enable us to capture the net impact of microfinance, and to isolate the influence of other factors on the income, consumption and assets etc. ,if any, of the borrowers.

The respondents have been decomposed into two groups, poor and non poor, by using the official poverty lines. The purpose of decomposing is to analyze and find

which category of the borrowers, the poor or rich, are in majority. If the poor are in majority then the microfinance is reaching to the target population, otherwise rich may be getting benefits of the microfinance. We have used the country official poverty line of Rs.878.64 per adult equivalent per month for the year 2004-05 and the same poverty line has been deflated by Core inflation to get the poverty line of Rs.838.22 for the year 2003-04.

More specifically the following formula has been used to find the net impact of micro credit on poverty alleviation.

$$P^* = (Pb_{t_1} - Pb_{t_0}) - (Pnb_{t_1} - Pnb_{t_0})$$

Where

P^* : Net impact of micro credit on poverty status of borrower households

Pb_{t_1} is the poverty status of the borrower households with current income level,

Pb_{t_0} is the poverty status of the borrower households with previous income level,

Pnb_{t_1} is the poverty status of the Non- borrower household with current income level and

Pnb_{t_0} is the poverty status of the non-borrower household with previous income level,

' t_1 ' represents the duration from Jan 2004 to Jan 2005 and ' t_0 ' stands for the duration from Jan 2003 to Jan 2004.

Moreover, the same procedure has been employed to find the net impact of microcredit on income, expenditure, assets and other social indicators of both the borrower groups- the poor and the non-poor.

3.2. Data Source

We have utilized the data collected by PPAF. Gallup Pakistan (2005) gathered quantitative data from more than 3000 households, covering all provinces of Pakistan, of which more than 1500 were borrowers and the rest were non borrowers (control group). Interviewed were conducted in 114 community organizations from 23 participatory organizations. Data were also collected on the socio-economic variables. Respondents were asked questions about their current and past year's income, consumptions and assets in addition to many other variables related to different aspects of sample households. Details of the quantitative variables used in the study are given in Appendix A.

4. Economic Impact of Microfinance on the Borrowers

4.1. Targeting of the funds and the impact on poor

This section analysis the targeting of the microfinance and its impact on the borrowers. For this purpose both the samples of borrowers (target group) and non borrowers (control group) have been decomposed into poor and non poor categories by using the poverty lines given in section 3.1. Table 1 classifies the borrowers into poor and non-poor categories.

Table-1
Poverty Status of the Borrowers

	Poverty Line Rs. 838.32 per month per adult equivalent (Rs. 4304.77 per HH)		Poverty Line Rs. 878.64 per month per adult equivalent (Rs. 4500.62 per HH)		% Difference
	2003-04		2004-05		
Status	Households (HH)	% of HH	Households	% of HH	
Poor	474	30.46	374	24.04	-6.42
Non poor	1082	69.54	1182	75.96	6.42
Total	1556	100.00	1556	100.00	

Source: our estimates

The Tables shows that about 30 percent of the borrowers were poor in 2003-04 and the rest of the borrowers were found to be non-poor. The main objective of the PPAF is to get the poor out of the poverty by providing them the small loans through its participatory organizations. The data do not support the prime objective of the PPAF as the number of rich borrowers (69.54 percent) exceeds the number of poor borrowers (30.46). This shows miss-targeting of the PPAF's microfinance scheme. Perhaps POs have diverted more funds to the better-off entrepreneurial class rather than the poor community. However, micro finance reduced the number of poor by 6.42 percent (from 30.46 percent in 2003-04 to 24.04 percent in 2004-05) and they moved to the non-poor status.

Table 2 shows the poverty status of the non-borrowers households who were selected for the comparison purpose and to find the net impact of PPAF microfinance. The Table shows that about 30 percent were poor in 2003-04 and the remaining sample households were non-poor in the same year. However, after one year the number of poor households decreased by 3.78 percentage points from 29.53 percent to 25.75 percent. This shows the impact of other factors which have reduced the poverty even among the non-borrowers.

Table-2
Poverty Status of the Non-Borrowers

	Poverty Line Rs.: 838.32 per month per adult equivalent (Rs. 4304.77 per HH)		Poverty Line Rs.: 878.64 per month per adult equivalent (Rs. 4500.62 per HH)		
	2003-04		2004-05		Difference
Status	Households (HH)	% of HH	Households	% of HH	% tot diff
Poor	461	29.53	402	25.75	-3.78
Non poor	1100	70.47	1159	74.25	3.78

Table 3 presents the net impact of microfinance on the borrowers. This table has been constructed by taking the last column of Table 1 and the last column of Table 2. The difference of the difference has been shown in the last column of Table 3. The last column of Table 3 reveals that microfinance has reduced the poverty about 3 percent in the period under study.

Table-3
Net Impact of PPAF Micro Credit on Poverty Status of the Borrowers

Status	Last Column Table 1 (T1)	Last Column Table 2 (T2)	Difference (T1-T2)
Poor	(-) 6.42	(-) 3.78	(-)2.64
Non-Poor	(+) 6.42	(+) 3.78	(+)2.64

4.2. Impact on Households Income

The following Table demonstrates the impact of microfinance on the income of the borrowers. We have already decomposed the sample households into poor and non-poor. The difference in the average income of the poor and non-poor target group and the poor and the non-poor of the control group has been presented in Table 4.

Table-4
Difference in Average Income of the Borrowers and Non-Borrowers

	Borrowers (Target Group)			Non Borrowers (Control Group)			% Diff of the Diff
	2003-04	2004-05	% diff	2003-04	2004-05	% diff	
Mean	3,241	3,557	9.74	3,278	3,536	7.87	1.87
Non-poor	7,055	8,262	17.10	6,998	7840	11.12	5.98*

* Significant at 5%.

The income of the poor borrowers increased by 9.74 percent, while the income of the non-poor borrowers increased by 17.10 percent during the period under

study. Similarly the income of the poor non-borrowers increased by 7.87 percent while that of non-poor non-borrowers' income increased by 11.12 percent over the same period. The last column of the Table reports the net effect of the microfinance on the income of the borrowers, which is about two percent (1.87 percent). This increase is marginal and insignificant. However, the net effect of microfinance on the income of the non-poor was about 6 percent and found to be statistically significant.

4.3. *Impact of Microfinance on Households Consumption Expenditures*

Table-5
Difference in Average Consumption of the Borrowers and Non-Borrowers

	Borrowers			Non- Borrowers			% Diff of the diff
	2003-04	2004-05	% diff	2003-04	2004-05	% diff	
Mean	3,163	3,718	17.55	3,442	3,702	7.55	10.00*
Poor	5,599	6,446	15.13	5,807	6,296	8.42	6.71*
Non poor							

* Significant at 5%.

Table 5 presents percentage change in mean consumption of the borrowers and non borrowers. The data reveals that average monthly consumption expenditure of the poor and non poor borrowers increased by 17.55 and 15.13 per cent respectively in the period under study, while average expenditure of the poor and the non-poor of the control group increased by 7.55 percent and 8.42 percent respectively over the same period. The net effect of microfinance on the average consumptions of the poor and non-poor borrowers is given in the last column of the Table. The net average consumption expenditure of the poor borrowers increased significantly (10 percent) while this was 6.71 percent for the non-poor borrowers. As it has been discussed in the review of literature that many poor borrow for the purpose of smoothing their consumption rather than for some productive purpose. Our analysis also supports these findings.

4.4. *Impact of Microfinance on Households Assets*

This section highlights the assets held and growth in assets, if any, by the control and the target group of respondents. The Table 6 shows that both the groups non-poor borrowers and non- borrowers were having different household durables. These assets are listed in the Table given below. Although the assets of both the categories of respondents increased over time, the net effect of microfinance on households durables found to be marginal. This has been shown in the last column of Table 6.

Table-6
Household Assets and Change in Asset of Non- Poor Respondents

Item	Borrower Percentage change	Non-borrower Percentage change	Percentage	Percentage diff of diff
VCR/VCP	10.3	9.4		0.9
Tape Recorder	50.8	51.4		-0.6
Mobile phone	5.1	4.1		1
Radio	56.6	59.6		-3
Air cooler	8.2	6.5		1.7
Iron	80.4	79.8		0.6
Television	55.5	54.3		1.2
Motor cycle	11.4	7.4		4
Fan	87.4	85.6		1.8
Bicycle	55.5	55.9		-0.4
Sewing machine	65.4	66.2		-0.8
Washing machine	46.5	46		0.5
Refrigerator	19.8	18.2		1.6
Suite case	70.7	68.9		1.8

Table 7 reports the percentage change of assets acquisition by the poor borrowers and non-borrowers during the period under study. Table reveals positive change in the growth of assets of households by both the categories of respondents during the period. The last column of the Table shows the net effect of the microfinance on growth of assets of the borrowers. Results show that the poor non-borrowers were better off in terms of change in most of their assets compared to the poor borrowers. The net effect of Microfinance on the growth of assets of the poor borrowers found to be negative except fan, bicycle and Sewing machine, which is also insignificant. The above analysis shows that microfinance does not add to the assets of the poor.

Table-7
Growth of Assets of the Poor Respondents

Item	Borrower (Percentage)	Non-borrower (Percentage)	Percentage diff of diff
VCR/VCP	4.8	5.7	-0.9
Tape Recorder	34.4	35.1	-0.7
Mobile phone	0.3	0.7	-0.4
Radio	57.1	58.5	-1.4
Air cooler	4.3	2.5	1.8
Iron	67.6	66.9	0.7
Television	31.6	33.6	-2
Motor cycle	2.1	3.5	-1.4
Fan	72.9	71.4	1.5
Bicycle	52.5	50.7	1.8
Sewing machine	49.1	43.3	5.8
Washing machine	21.2	23.4	-2.2
Refrigerator	5.1	5.7	-0.6
Suite case	67.3	68.2	-0.9

4.5. Acquisition of Property

Table 8 shows that 8.1 percent of the non poor borrowers purchased houses and 13.7 percent acquired some other property with an average expenditure of Rs 1, 077,815 and Rs 978,083 respectively during the period under study. Likewise 7.8 percent of the non-poor non-borrowers purchased houses with an average expenditure of Rs 1, 984,100 while 0.9 percent of them acquired other property at an average expenditure of Rs. 263,200. Results show a significant difference in other property acquisition by the borrowers.

Table-8
Property Acquisition by the Non- Poor Respondents

	Borrowers		Non-borrower	
	Percentage	Average Value(Rs)	Percentage	Average Value (Rs)
House	8.1	1,077,815	7.8	1,984,100
Other Property	13.7*	978,083	0.9	263,200

* Significant at 5%.

Table-9
Property Acquisition by the Poor Respondents

	Borrower		Non-borrower	
	Percentage	Average Value (Rs)	Percentage	Average Value (Rs)
House	8.3*	1051,613	5.7	1,927
Other Property	2.4*	256,667	0.7	136,667

* Significant at 5%.

Table 9 presents property acquisition by the poor borrowers and non borrowers during the current year. About 8 percent of the poor borrowers acquired houses while 2.4 percent acquired other property at the average cost of Rs 1,051,613 and 256, 667 respectively. Likewise 5.7 percent of the poor non borrowers acquired houses and about one percent of the poor non-borrowers acquired other property. The difference between the two subgroups found to be significant.

4.6. Purchase of Agricultural Related Asset

Table 10 presents acquisition of farm implements by the non poor borrowers and non-borrowers in the study period. About 3.7 percent of borrowers reported acquisition of tractor and the same percentage (3.7 percent) acquired trolley compared to only 0.2 percent and 0.3 percent of non-borrowers who purchased tractor and trolley respectively. None of the two subgroup acquired thresher and

truck within the study period while negligible number of both groups (about 0.4 percent) purchased other agricultural equipments during this period.

Table-10
Purchase of Farm Implements by Non Poor Respondents

Asset	Borrower (Percentage)	Non-borrower (Percentage)
Tractor	3.7	0.2
Trolley	3.7	0.3
Thresher	0	0
Truck	0	0
Agric Equipment	0.3	0.4

Table 11 presents the purchase of farm implements by the poor respondents. None of the poor borrower and non borrower acquired tractor, thresher and truck, while less than one percent (0.8 percent and 0.5 percent) of the poor respondents from both the categories acquired trolley and agricultural equipments during the study period.

Table-11
Purchase of Farm implements by the Poor Respondents

Asset	Borrower Percentage	Non-borrower Percentage
Tractor	0	0
Trolley	0.8	0.7
Thresher	0	0
Truck	0	0
Agriculture Equipment	0.3	0.2

4.7. Changes in Livestock

This section discusses the changes in the livestock of the respondents during the study period. The last column of the Table 12 gives net effect of Microfinance on changes of livestock. The column shows either positive, no change or negative change in the number of livestock acquired by the non-poor borrowers and non-borrowers. A great percentage of non-poor borrowers and non-borrowers experienced no change in their livestock during the study period. However, majority of the non-poor non-borrowers experienced no change in their livestock compared with non-poor borrowers. This has been reflected by the negative sign in the last column of Table12. The non-poor borrowers added more animals to their existing stock as compared to the control group. This has been reflected by the positive sign in the last column of the Table 12. The Table shows that the net impact of microfinance has been positive on the livestock of the non-poor borrowers.

Similarly Table 13 reveals the changes in livestock of the poor respondents. The Table shows that majority of the respondents, poor borrowers and poor non-borrowers, reported no change in their livestock. However, few poor borrowers were able to add more cows, bull, goat and sheep etc. to their existing stock of animals than those of poor non-borrowers. This shows a positive net effect of microfinance on the livestock of the poor borrowers. (for detail see table 13).

Table-12
Direction of change in Livestock of the Non Poor Respondents

Borrowers			Non-Borrowers		
Animal	Direction of change	Percentage change	Percentage change	Percentage Difference	Difference of the
Cow	Negative Change	3.3	1.1	2.2	
	No change	69.7	82.1	-12.4	
	Positive change	27.0	16.8	10.2	
Buffalo	Negative Change	1.6	1.3	0.3	
	No change	77.1	80.8	-3.7	
	Positive change	21.9	17.9	4.0	
Bull	Negative Change	27.6	4.8	22.8	
	No change	48.3	90.5	-42.2	
	Positive change	24.1	4.7	19.4	
Bullock	Negative Change	11.1	5.0	6.1	
	No change	72.2	80.0	-7.8	
	Positive change	16.7	15.0	1.7	
Goat	Negative Change	5.0	1.2	3.8	
	No change	49.8	73.1	-23.3	
	Positive change	45.2	25.2	20.0	
Sheep	Negative Change	3.3	1.3	2.0	
	No change	41.0	68.4	-27.4	
	Positive change	55.7	30.3	25.4	

Table-13
Direction of change in Livestock of the Poor Respondents

Animal	Direction of change	Percentage change	Percentage change	Percentage Difference	Difference of the
Cow	Negative Change	1.9	0.0	1.9	
	No change	75.4	93.2	-17.8	
	Positive change	23.4	6.8	16.6	
Buffalo	Negative Change	4.5	2.8	1.7	
	No change	80.1	75.7	4.4	
	Positive change	15.6	20.9	-5.3	
Bull	Negative Change	5.8	0	5.8	
	No change	68.6	88.0	-19.4	
	Positive change	25.5	12.0	13.5	
Bullock	Negative Change	0.0	0.0	0.0	
	No change	64.4	90.0	-25.6	
	Positive change	35.6	10.0	25.6	
Goat	Negative Change	3.9	6.6	-2.7	
	No change	44.6	64.1	-19.5	
	Positive change	51.2	29.3	21.9	
Sheep	Negative Change	0.0	3.6	-3.6	
	No change	44.4	54.5	-10.1	
	Positive change	55.6	40.0	15.6	

4.8. The Impact of Microfinance on Household Facilities.

This section highlights the impact of microfinance on adding and improving the household facilities for better living, and expenses on other social events. Table 14 depicts the expenditure made by the non-poor borrowers and non-borrowers on their house repair. The average amount spent on repair of houses by the borrowers was higher than non-borrowers. However, the average amount spent on repair of houses by both the categories of respondents was small.

Similarly Table 15 presents the average expenditure on house repair by the poor borrowers and non-borrowers. Table shows that poor borrowers spent larger amount on repair of house than poor non-borrowers. Nevertheless, the average amount spent on house repair by both of the respondents was found to be very small.

Table-14
Expenditure on House repair by Non- poor Borrowers (in Rs.)

Borrower			Non Borrower			% Difference of the difference
Mean Expenditure current year	Mean Expenditure previous year	% change	Mean Expenditure current year	Mean Expenditure previous year	% change	
Rs.2621.93	Rs. 1198.85	Rs. 118.80*	Rs. 1938.65	Rs. 1402.94	Rs. 38.11	Rs. 80.69*

*Significant at 95% level of significant

Table-15
Expenditure on House Repair by Poor Borrowers (in Rs.)

Borrower			Non Borrower			% Difference of the difference
Mean Expenditure current year	Mean Expenditure previous year	% change	Mean Expenditure current year	Mean Expenditure previous year	% change	
2208.25	1520.62	45.22	717.13	487.96	46.96	-1.74

Table 16 presents percentage of the non-poor respondents who improved households' facilities during the study period. The table shows that a small percentage of the respondents from both the groups brought improvements in their houses. However, the percentage of borrowers who improved their house facilities was marginally higher than non-borrowers. Likewise is the case of poor borrowers and poor non-borrowers (see Table 17).

Table-16
Improvement in Household Facilities by Non- poor Respondents (in %)

Facilities	Borrowers %	Non-Borrowers (%)	% differences
Latrine Construction	4.4	3.3	1.1
Water Connection	8.2	2.3	5.9*
Electricity Connection	3.0	2.0	1*
Gas Connection	0.7	0.5	0.2
Telephone Connection	0.8	0.6	0.2

*Significant at 5% confidence level.

Table-17
Improvement in Household Facilities by Poor Respondents (in %)

Facilities	Borrowers %	Non-Borrowers %	% Differences
Latrine Construction	3.2	2.7	0.5
Water Connection	8.2	1.2	7*
Electricity Connection	2.4	2.0	0.4
Gas Connection	0.5	7.4	-5.9
Telephone Connection	0.3	0.5	-0.2

*Significant at 5% confidence level.

4.9. Expenditure on Social Event

Table 18 presents the expenses of non poor on social events during the study period. The Table shows that the percentage of positive changes in expenditure on miscellaneous social events are greater for borrowers on funeral, recreation, female education and child toy than non borrowers, while non borrowers have higher percentage change in the amount spent on illness, male child education, traveling and litigation. The borrowers' expenditure on wedding decreased in the current year. The change in expenses on miscellaneous social events is significant in favor of borrowers for wedding, illness and litigation.

Table 19 presents expenses of the poor respondents on social events. The data show a very small amount spent on different social events by the respondents. However, poor borrowers' expenditures for children education, child toy, traveling and litigation were found to be higher than poor non-borrowers, while non borrowers recorded higher change in spending for wedding, illness, funeral and recreation. The change in expenses on miscellaneous social invents is significant in favor of borrowers for wedding, male children education and toy.

Table-18
Expenditure on Miscellaneous Social Events by Non- Poor Respondents

	Borrower			Non Borrower			Difference of the difference
	Mean Expenditure current year	Mean Expenditure previous year	% change	Mean Expenditure current year	Mean Expenditure previous year	% change	
Expenditure on wedding	3446.46	7431.62	-53.62	2770.40	2519.43	9.96	-63.58*
Expenditure on Illness	2583.06	2442.22	5.77	2204.67	1864.12	18.27	-12.80*
Expenditure on Funeral	1571.07	1358.94	15.61	1389.20	1278.62	8.64	6.97
Expenditure on recreation	1196.05	989.63	20.85	959.15	863.47	11.08	9.77
Expenditure on male children education	2241.14	2047.04	9.48	1665.18	1481.21	12.42	-2.92
Expenditure on female children education	1242.49	1097.09	13.25	1019.39	918.63	10.97	2.28
Expenditure on child toy	481.16	412.38	16.68	476.46	441.13	8.01	8.67
Expenditure on traveling	1947.77	1792.18	8.68	1810.12	1638.52	10.47	-1.79
Expenditure on litigation	457.67	339.60	34.75	530.56	308.56	71.95	-36.20*

*Significant at 5%.

Table-19
Expenditure on Miscellaneous Social Events by Poor Respondents

	Borrower			Non Borrower			Difference of the difference
	Mean Expenditure current year (Rs.)	Mean Expenditure previous year (Rs)	% change	Mean Expenditure current year (Rs.)	Mean Expenditure previous year (Rs.)	% change	
Expenditure on wedding	1883.46	1527.43	23.30	2157.75	1451.83	48.62	-24.68*
Expenditure on Illness	1631.19	1661.49	-1.82	1771.47	1686.35	5.05	-6.87
Expenditure on Funeral	1272.04	1131.18	12.45	1212.23	1024.76	18.28	-5.83
Expenditure on recreation	830.52	687.79	20.75	740.98	606.19	22.24	1.49
Expenditure on male children education	990.82	826.33	19.91	749.45	692.46	8.23	11.68*
Expenditure on female children education	630.61	539.17	16.96	481.62	445.03	13.75	3.21
Expenditure on child toy	532.27	417.73	27.41	399.46	351.16	13.75	13.98*
Expenditure on travelling	1332.59	1275.95	4.44	1312.50	1247.70	5.19	-0.75
Expenditure on litigation	614.12	454.12	35.23	109.80	142.65	23.03	12.20

*Significant at 5% confidence interval.

Islamic Microfinance

5. Conclusion and Policy Recommendations

The study has been conducted to analyze the socio-economic impact of microfinance on the borrowers in Pakistan. The study has employed the “Difference of the Difference” approach to find the net effects of microfinance. The study has used data collected by Pakistan Poverty Alleviation Fund in 2005. The main objective of the microfinance has been to reach the poor and disadvantaged people who do not have collateral.

The study found that in case of Pakistan all microfinance funds are not going to the poor masses rather the non-poor were the major beneficiaries. Only about 30 percent of the poor were the recipients of the microfinance facilities during the study period, which show miss-targeting of the funds. The impact on the poverty status was found to be positive but marginal. Only about 3 percent of poor could cross the national poverty line. The income of the poor borrowers hardly could grow by 2 percent during the study period. The income of the non-poor borrowers grew at about 6 percent. However, the consumption of the poor borrowers increased by 10 percent, which indicates that the poor primarily borrow for smoothing their consumption. A significant net effect of microfinance on the consumption (6.71 percent) and income (about 6 percent) of non-poor borrowers has been found. Results show that poor non-borrowers were better off in terms of change in most of their assets compared to the poor borrowers. However, the net effect of microfinance on households durables of the non-poor borrowers was marginal while the net effect of microfinance on few items of household durables like fan, bicycle and sewing machine , of the poor borrowers was found to be positive.

Compared to the poor borrowers, the majority of the poor non-borrowers reported no change in their livestock. Similarly, some poor borrowers reported positive changes in their livestock as compared to poor non borrowers during the study period, which shows positive net impact of microcredit on the livestock of the poor borrowers.. As for as purchase of property and other agriculture related assets are concerned, only about 8 percent of the poor borrowers could purchase some property while about one percent purchased agricultural implements. The majority of the poor borrowers and non-borrowers reported no change in their livestock. However, poor borrowers were able to add more cows, bull, goat and sheep etc. to their existing stock of animals than those of poor non- borrowers. This shows a positive net effect of microfinance on the livestock of the poor borrowers.

Results show some changes in adding household facilities and house repairs by the poor and the non poor borrowers. Both of the respondents spent very small amount on house repair. Likewise very few poor and non-poor respondents added household facilities during the study period. Expenditures on social and other miscellaneous items were found to be small. However, poor borrows spent more money for children education, child toy, travelling and litigation compared to non borrowers who spent a little bit more on wedding, illness, funeral and recreation.

The main purpose of the PPAF was to address the problem of poverty in the country and to provide microfinance to the poor through its participatory organizations and NGOs. Despite the PPAF efforts, the POs and other NGOs failed to target the poor masses. They focused on entrepreneurial class. The PPAF should make sure that funds go to the poor and marginalized communities.

It has been noticed that most of the poor who received microcredit were not benefited much, perhaps they lack entrepreneurial skills. Although PPAF has been stressing the POs for the training of the recipients of microfinance, it seems that POs have neglected the training aspect of the beneficiaries. It is suggested that the borrowers of microfinance also be provided with training in the areas (sectors/trades) in which funds are made available.

The average size of the loan was reported to be about Rs. 11,445 ranging from Rs. 1,000 to Rs. 30,000, while the average loan size desired by the borrowers was around Rs.24, 803. Therefore the loan size may be increased so that the borrowers may get full benefits out of it.

The analysis given above highlights the extent of effectiveness of the traditional microfinance in case of Pakistan. Results show some positive but marginal impact on the social and economic life of the borrowers. However, traditional microfinance is reaching and benefiting more to better off than the poor and unskilled. It has also been observed that most of the poor borrow for smoothing their consumption rather than for some investment purpose. They are caught in a trap and remain poor. This problem can be solved by providing them social safety net and capacity building through *zakāt* and *ṣadaqat*. An inclusive business model is suggested, where consumption requirement may be met through grant and production requirement through finance to include the poor and enable them to be entrepreneurs.

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Appendix A Descriptive Statistics of Some Variables Used in the Paper

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Age of the respondent	3126	16	88	37.89	10.454
Current personal monthly income	3125	0	99000	5409.63	4832.924
Previous personal monthly income	3106	0	50000	4734.10	3314.052
Current monthly HH income	3126	0	145000	7010.83	5132.338
Previous monthly HH income	3125	0	251000	6289.55	6102.558
Current HH monthly consumption	3126	1000	100000	6065.22	5734.861
Previous HH monthly consumption	3126	400	85000	5235.40	4241.402
Value of property	35	-1	4050000	488257.11	856714.958
Value of trolley	9	15000	90000	37388.89	22698.813
Value of agri	10	200	15000	2520.00	4421.111
Value of Tractor	2	215000	240000	227500.00	17677.670
Valid N (listwise)	0				

Note: All sample

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Age of the respondent	1563	18	88	37.98	10.515
Current personal monthly income	1562	0	99000	5606.03	5284.458
Previous personal monthly income	1552	0	30000	4661.01	3048.558
Current monthly HH income	1563	0	120000	7204.46	5160.433
Previous monthly HH income	1563	0	251000	6345.12	7348.341
Current HH monthly consumption	1563	1250	100000	6170.68	5694.460
Previous HH monthly consumption	1563	1200	70000	5177.51	3689.816
Value of property	22	-1	4050000	638499.95	1024364.862
Value of trolley	3	45500	90000	61833.33	24496.598
Value of agri	4	200	2000	925.00	763.217
Value of Tractor	0				
Valid N (listwise)	0				

Note: All Borrowers

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Age of the respondent	1563	16	80	37.79	10.394
Current personal monthly income	1563	0	83333	5213.36	4327.766
Previous personal monthly income	1554	0	50000	4807.10	3558.988
Current monthly HH income	1563	0	145000	6817.21	5098.386
Previous monthly HH income	1562	0	70000	6233.94	4526.725
Current HH monthly consumption	1563	1000	85000	5959.77	5774.875
Previous HH monthly consumption	1563	400	85000	5293.30	4729.594
Value of property	13	10000	1020000	234000.00	363072.07 7
Value of trolley	6	15000	35000	25166.67	6823.977
Value of agri	6	500	15000	3583.33	5607.287
Value of Tractor	2	215000	240000	227500.00	17677.670
Valid N (list wise)	0				

Note: All Non-Borrowers