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Doing business with the poor: the rules and impact of the microfinance institutions

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ABSTRACT

Of the total global population, at least 14.5% are living on less than $1.25 a day, 34% of the females in the least developed countries are unable to complete their primary education, and some 805 million are believed to be food insecure. To bring these numbers into accordance with the Millennium Development Goals, there are at least a dozen of different programmes operating around the world. Microcredit, being one of those programmes, is considered superior to the rest for being the only participatory approach and for being general enough to cater for a number of policy interventions. Microcredit or credit to the poor is provided under two very different mechanisms; the welfarist mechanism and the institutionalist mechanism. Each of these mechanisms has its advocates, as well as, its critics. The current paper empirically evaluates the two approaches in a systematic way. By using purposively collected data from the North West Pakistan and vigorous methodologies, we show that commercialization of microfinance institutions has indeed shifted the focus from either poverty reduction or women's empowerment. Instead, the focus is now on more secure and profitable advances. Moreover, we also show that the welfarist approach in eradicating poverty and empowering women is superior to the now popular financial system approach.

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1. Background

The world's resources are about to touch the magical US$100 trillion mark, but the gloomy reality remains that at least 14.5% of the global population are still living on less than $1.25 a day (World Bank, 2015a). In addition, an overwhelming 34% of the females in the least developed countries are unable to complete their primary education (World Bank, 2015b), and some 805 million are believed to be food insecure (World Food Programme, 2015). The existence of poverty in the global world is nothing new but the realisation that it can be eliminated is not old by comparison. Since the last century or so, numerous poverty alleviation programmes have been initiated with varying degrees of success. Of all those

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programmes, the provision of microcredit facilities to the poor is the most recent and unique one. Being the only participatory approach, microcredit enables the poor to earn their own living essentials by providing them with the missing arm (financial resources) (Littlefield, Morduch, & Hashemi, 2003).

Bearing great expectations, the initial wave of the microfinance institutions (MFIs, henceforth) followed the poverty lending approach that championed providing credit to the rural poor at concessional rates and without the conventional collateral requirements (Arun, 2005). A number of success stories appeared in the academic literature soon after the introduction and operationalization of the approach (e.g. Imai, Gaiha, Thapa, & Annim, 2012; Morduch, 1999; Morduch & Haley, 2002; Mosley & Hulme, 1998; Robinson, 2001; Zaman, Khilji, Awan, Ali, & Naseem, 2014). As well as being heavily dependent upon grants and subsidies, the non-sustainability of such institutions soon surfaced. Coupled with the realisation that all the poor need is credit, not cheap credit, the welfarist MFIs soon realised a transformation to the so-called financial system approach (Bateman, 2010). The hallmark of the financial system approach, claimed by its advocates, is that the missing arm is provided to the poor without hurting someone else (Morduch, 2000).

Amongst other things, the sustainability of MFIs requires charging a rate of interest on its advances that is high enough to cover all sort of costs. These costs include the cost of acquiring funds, administrative costs, and the costs of internalising bad risks. Thus, pursuing sustainability, a number of MFIs started charging interest rates that were well above the market rate of interest (Helms & Reille, 2004; Miyashita, 2000). No doubt, a higher rate of interest on microloans is likely to achieve the goal of sustainability, but this raised more serious concerns than sustainability (e.g. Bateman, 2010; Goetz & Gupta, 1996; Hermes & Lensink, 2011; Hulme & Mosley, 1996; Kirkpatrick & Maimbo, 2002; Marr, 2004; Mosley, 2001; Scully, 2004; Simanowitz, 2002). Two of these newly generated concerns have received greater attention from academia. The first has to do with the working of the new wave of MFIs, i.e. whether the new wave of MFIs works the same way as the old one did to alleviate poverty. The second concern is related to the mission drift of MFIs, i.e. the pursuit of profit and sustainability might have shifted the attention of MFIs from their original mission of targeting poverty and empowering women.

Regarding the first of the two concerns, the trade-off between financial sustainability and outreach has been well documented (e.g. Hulme & Mosley, 1996; Simanowitz, 2002). Moreover, the neoclassical utility maximisation model implies that household welfare can never be improved by charging a higher price for microloans (Khan, Shaorong, & Ikramullah, 2015). Regarding the second concern, we find a mixture of empirical findings. For example, while Cull, Demirgüç-Kunt, and Morduch (2007) have reported evidence of mission drift in cross-country analysis, Armendariz and Szafarz (2009) warn that such evidence at best describes progressive lending or cross subsidisation but should not be considered as evidence of mission drift in itself. Our aim in this paper is to address both of these issues in detail, using purposively collected primary data from Khyber Pakhtunkhwa, Pakistan. The paper is organised as follows; Section 2 outlines the area profile and the sampling methodology used in the study. Section 3 explains the analytical methodology that is used to draw inferences regarding the presence of mission drift and impact of MFIs on poverty-related indicators in the area. Section 4 presents results of the various models while Section 5 concludes. Section 6 is added to discuss some of the policy implications of the results.

Table 1. Highlights of Dir Lower.

Total population	1240,389
Average land holding in hectares	0.03799
Percentage of literate population	44
Percentage of rural population	94
Percentage of female population	50
Percentage of active population (15–64 years)	50
Financial institutions (banks)	6
Development banks	1
NGOs working on poverty alleviation	5
Percentage of employed persons in various occupations	
Employer	0.52
Self-employed (crafts and related trades)	12.92
Wage employee	40.33
Unpaid family workers	1.58
Owner cultivators	37.49
Sharecroppers	1.85
Contract cultivators	3.53
Livestock	1.79

Source: Pakistan Poverty Alleviation Fund (2014).

2. Design of the study

2.1. Area profile

The survey has been conducted in Dir lower, one of the 25 districts of Khyber Pakhtunkhwa, which is some 124 km away from the provincial capital (i.e. Peshawar) and 260 km away from the capital city of Pakistan. The district is spread over 1583 square kilometres and is home to some 1.25 million people. Administrative wise, the district is being divided into six Tehsils; Adenzai, Balambat, Khall, Lal Qilla, Samarbagh and Temergara. Each Tehsil is further divided into various union councils. The district is surrounded by Dir upper to the north, Malakand Agency to the south, Swat Valley to the east and Bajawar Agency to the west. Table 1 contains some of the socio economic and demographic highlights of the district, which are retrieved from the Pakistan Poverty Alleviation fund (2014).

The Pakistan Household Integrated Economic Survey (2011–12) reports the average monthly household income of the area in the range of US$5 to US$10 per day. This means that the per capita daily income of an average household (the average household size in the area is 7.71 according to HIES 2011–12) ranges from US$0.65 to US$1.30. This is some poverty by any standard. In addition, the average land holding is hardly enough to construct a house, let alone farming to fill the empty stomach of the local inhabitants. This shows the living conditions of 43% of the inhabitants (owner cultivators, sharecroppers and contract cultivators) of the area.

The six financial institutions in the area do have some products which are either named developmental or antipoverty financing. The financial statements of these institutions show that there are hardly any customers for these products, thanks to the collateral requirements of these banks. The antipoverty Non-Governmental Organisations (NGOs) are providing grants and loans as small as US$147. Given the population and the bleak poverty of the area, supplemented by the collateral requirements of the financial institutions, the resources of the antipoverty NGOs are not sufficient to meet the growing needs. This space is filled by non-conventional money lenders, a type of money lending much more exploitative than its conventional counterpart. The public in the area are so religious that no one can

do business on the basis of usury. Instead the poor masses contact the financially well off people, like the Khans, and the feudal in times of emergency. But why would a 'khan' or a 'feudal' extend common people a loan facility, particularly if the prospects of returning the loan are very gloomy? The truth is that a Khan or a feudal (Landlords) himself would never want the people to return their loans. All they want in return is free labour, the so-called unpaid family workers, wage employees and share croppers as documented in Table 1.

2.2. Survey profile

The universe of the survey is composed of the six Tehsils of district Dir lower, six financial institutions and five NGOs. Of the six financial institutions and five NGOs in the area, only two of the financial institutions and two NGOs have a considerable number of clientele and hence the rest are removed from the universe. Thus, we have a total of four institutions left; Bank of Khyber (BOK), Agriculture Development Bank/Zarai Tarqiati Bank Limited (ZTBL), Helping Hand (HH), and Association of Behavioural Knowledge Transformation (ABKT). The first two of the four institutions extend micro loans on the basis of interest rates, while the last two extend grants-based micro loans.

A list of the applicants, successful and rejected, for microcredit has been obtained from all four institutions, which forms the basis for our sampling. The total applicants of the four institutions number in the thousands but only 567 of the applicants have been extended microcredit in the last five years. Hence, we have randomly added exactly 567 units from the rejected applicants to make our sampling frame balanced. This makes the total sampling units 1134. Using Cochran's (1977) formula for optimal sample size selection with $\alpha = 1\%$, and $d = 5\%$, the approximate sample size for the survey is 666. This sample size is non-negligible (i.e. the sample size is much greater than 5% of the population), so we have used the finite population correction formula, which recommends a sample size of 420. Since we use stratified random sampling to select the respondents, we also corrected the sample size for the design effect of 1.3 (Henry, 1990; Kalton, 1983). Finally, keeping the analytical framework of the study in mind (Halinski & Feldt, 1970; Long & Freese, 2006; Miller & Kunce, 1973), the sample size of 568 respondents is decided as optimal for the study. Of the 568 respondents, 317 are MFI clients while the rest are the rejected applicants.

3. Analytical methodology

3.1. The behavioural function

To compare the impact of the two types of lending practices of MFI's on poverty related indicators, we utilise the basic neoclassical utility optimisation framework. Consider an individual who is both a consumer and a producer at the same time. His utility maximisation problem can be stated as (Khan et al., 2015);

$$\text{Max}\{U(x){:}x\varepsilon g(p,y)\} \tag{1}$$

where **x** is a consumption vector, **y** is the production/income vector and p is the input price vector. The maximum value function associated with the problem specified in equation (1) can be stated as (Khan et al., 2015);

$$V(p,y) = \text{Max}\{U(x){:}x\varepsilon g(p,y)\} \tag{2}$$

One of the well-known properties of the indirect utility function specified in equation (2) is that if $U(\mathbf{x})$ is continuous and represents locally non-satiated preference relation, then $V(p, y)$ is strictly increasing in income (i.e. $\mathbf{y}$) and non-increasing in prices (Mas-Colell, Whinston, & Green, 1995). The implications of this property on the welfare of the consumer are straightforward; that is 'any relaxation of the consumer's budget constraint can never cause the maximum level of achievable utility to decrease and any tightening of the budget constraint can never cause utility to increase'.

The result derived in equation (2) and its associated property has two very important implications for antipoverty interventions such as microfinance. The first part of the property says that any intervention that increases income (i.e. relaxing the constraint) would always increase the welfare of the consumer. The constraint set can be relaxed in a number of ways. For example, if the individual has only his raw labour time as an input to produce things, then training and skill provision can enhance his productivity and hence relax the constraint set. A conventional farmer who only applies the primitive techniques for cultivation can gain in terms of production, if necessary capital is provided to modernise his farming. A person who produces raw material or intermediate goods due to non-availability of processing resources can be enabled to produce finished goods, if resources are being provided. In all of these cases, the increase in income of the consumer should translate into better living conditions and a sustainable exit from poverty trap (this effect has been called the income augmenting effect by Khan et al., 2015).

The second part of the property says that utility is non-increasing in prices. This is a very interesting result because most of the proponents of the so-called financial system approach claim the interest insensitivity of microloans (e.g. Ghate, 1992; Helms & Reille, 2004; Miyashita, 2000; Morduch, 2000; Mustafa, Gill, & Azid, 2000). This can be true, according to the property, in only two situations (Khan et al., 2015). The first case has to do with a 'corner solution', i.e. the case where the consumer completely avoids taking a loan, which amounts to no intervention at all. The second possibility is that microloans, in reality, are interest insensitive (i.e. a giffen good) as far as participation of the poor is concerned, but would definitely decrease the welfare of the consumer. Clearly, both the scenarios are unacceptable if the intervention is really meant for poverty reduction (this effect has been called the 'budget tightening effect' by Khan et al., 2015).

3.2. Econometric specification of the model

To evaluate the two financing moods empirically, all we need to do is to compare the impacts of the two on poverty-related indicators. If microloans are really interest insensitive, then no matter what the $\mathbf{p}$ is, the impact on poverty-related indicators should be the same. However, the behavioural model discussed above implies that the budget tightening effects of microloans based on the financial system approach is greater than its income augmenting effect (Khan et al., 2015) and hence the impact should vary inversely with the $\mathbf{p}$. And if this really turns out to be the case, then a higher $\mathbf{p}$ is not necessarily explained by the pursuit of sustainability or by a greater depth of outreach, but is the result of pursuing higher profits.

Thus, in order to evaluate the two lending approaches of MFIs, we first diagnose the real mission of MFIs by correlating various variables with the probability of being a successful microcredit applicant. There are various measures of mission drift but the most frequently used proxy is the loan size (for example, Cull et al., 2007; Mersland & Strøm, 2010). However,

there are serious limitations associated with this measure of mission drift. First, variations in loan size may be due to progressive lending or due to cross subsidisation (Armendariz & Szafarz, 2009). Second, using loan size as a measure of mission drift assumes that small loans are accepted only by the core poor. While differentiating progressive lending or cross subsidisation from mission drift is difficult, the assumption of diminishing marginal utility of money also seems less practical. Thus, loan size, at best, is a very crude proxy to measure mission drift within MFIs.

As an alternative, our dataset allows us to run the following binary regression. The regression equation specified in equation (3) basically traces out the screening process of the MFIs.

$$TR_i = \beta_0 + \beta_1 Tl_i + \beta_2 SLC_i + \beta_3 FM_i + \beta_4 ORR_i + \beta_5 AE_i + U_i \tag{3}$$

The dependent variable, in the above specification, is the type of the *i*th respondent (TR_i). TR_i assumes the value of 1 if the *i*th respondent is a MFI client (i.e. a successful applicant) and 0 otherwise (i.e. a rejected applicant). This equation will help us identify the characteristics amongst the respondents whose applications for loans are likely to be successful. Each of the dependent variables has a distinct purpose for inclusion. For example, the first two of the dependent variables (i.e. Household total income, *TI*, and standards of living, *SLC*) relate to the financial position of the respondents and hence are included in the equation for whether or not the MFIs stick to their mission. A negative coefficient of both of the variables will imply that there is no evidence of mission drift, and vice versa.

A similar type of variable is the female-to-male ratio (*FM*), which measures whether the MFI are promoting women's empowerment (a positive β_3) or not. Although *FM* is not a direct measure of women's empowerment, it is indeed the most basic measure in the area. The remaining two variables, i.e. perceived income risk associated with the occupation of the respondent (*ORR*) and average household education (*AE*) are control variables. Occupations of the respondents are classified according to the risk associated with their earnings (*ORR* = 1 for occupations involving some risk in earnings and 0 otherwise) and hence a positive coefficient is expected, if the MFIs screen out bad risk applicants. *AE* is included in the above specification to capture the influence of market awareness or skills of the respondents in the MFIs' screening process.

The issue of microcredit impact on poverty-related indicators is addressed in two steps. Using the 'Difference-in-Difference (DID)' approach (Coleman, 1999), we first estimate the following set of equations;

$$Y_i = \beta_0 + X_i\beta_i + Z_i\delta_i + U_i \tag{4}$$

where Y_i is the impact variable (income of the respondent, total household income, per capita household income, total household consumption, per capita household consumption, consumption on health, education and food). X_i is a vector of household and individual characteristics and Z_i is a vector of MFI characteristics. The vector of interest in this model is Z_i, where a positive vector of estimated coefficients would imply negative correlations between various measures of microcredit and poverty.

Then we replace the vector Z_i with a dummy variable and estimate the following set of equations;

$$Y_i = \beta_0 + X_i\beta_i + Z_i\delta_i + U_i \tag{5}$$

Table 2. Results of the MFI screening/mission drift model.

Dependent variable: type of the respondent				
Covariates	Coefficients	Standard error	Significance	Exp (B)
TI	0.000	0.000	0.044	1.000
SLC	0.175	0.073	0.017	1.191
FM	−0.157	0.088	0.073	0.855
ORR	−0.111	0.180	0.537	0.895
AE	−0.114	0.086	0.187	0.892
Constant	−0.211	0.474	0.655	0.809
Percentage correct: 59.5	Hosmer & Lameshow Test: $\chi^2 = 7.938$ (Sig = 0.440)			
Cox & Snell R^2: 0.030	Nagelkerke R^2: 0.041			

Source: Authors' calculation using SPSS 16.

The dummy variable Z_i will assume the value of 1 for ZTBL and BOK (MFIs who charge an interest rate on their loan), and 0 otherwise (for HH and ABKT). A positive coefficient of Z_i would imply the interest insensitivity of micro credit and would mean that the new financial system approach is as effective in poverty alleviation as the old one.

4. Results and discussion

4.1. MFI screening/mission drift model

The results of the first model, i.e. the MFI screening model or the mission drift model, are reported in Table 2. The model is estimated using the logistic regression technique. The total number of observations used to estimate this model is 568, amongst which 317 are MFI clients while 251 are the rejected applicants. The dependent variable of the model is the type of the *i*th respondent, which can assume either the value of 1 (i.e. MFI client) or 0 (i.e. otherwise).

The results clearly indicate the presence of mission drift in the area. All the variables included in equation (3) to capture the presence of mission drift have the expected sign and are also statistically significant at acceptable levels. More specifically, controlling for other factors, total household income and standards of living are positively associated with the probability of being a successful MFI applicant. The last column of the table reports the odd ratio/marginal effects of each of the independent variables on the type of respondent, but we are interested only in the direction rather than magnitude of the impact.

Similarly, the female-to-male ratio appears with a negative sign and is statistically significant at 8%. This implies that households having a greater number of female members are less likely to be successful MFI applicants.

4.2. The impact of MFI business on poverty-related indicators

To trace out the impact of MFI business on poverty-related indicators, we have estimated 24 Ordinary Least Square (OLS) regressions of the type presented in equation (4). Three OLS equations are estimated for each of the eight impact variables, each one has a different measure of MFI characteristic, but the set of the remaining explanatory variables is kept the same. The Z_i vector includes three variables of interest; type of the *i*th respondent, loan size, and period of the *i*th respondent with the MFIs. Only one of these Z_i variables is included in each specification while the set of control variables is the same across all specifications.

Table 3. Impact of MFI on poverty related indicators.

	Type of respondent		Loan size		Period with MFI	
Impact variables	Coeff.	Sig.	Coeff.	Sig.	Coeff.	Sig.
Income of the respondents	4745.994	0.000	0.035	0.000	182.033	0.000
Total household income	2491.488	0.103	−0.014	0.098	52.068	0.252
Per capita household income	361.573	0.295	−0.004	0.024	1.526	0.882
Per capita household Consumption	837.385	0.337	−0.004	0.481	36.274	0.162
Total household consumption	598.467	0.482	−0.004	0.398	25.653	0.312
Consumption on food	583.418	0.059	0.004	0.024	29.858	0.001
Consumption on education	48.067	0.868	0.001	0.537	4.291	0.618
Consumption on health	485.219	0.000	0.002	0.001	13.494	0.000

Source: Authors' calculation using SPSS 16.

Table 4. How impacts are influenced by the type of MFI.

	Type of MFI			
Impact variables	Coefficient	St. Error	t-value	Significance
Income of the respondents	6728.998	1174.546	5.729	0.000
Total household income	−9937.118	2167.954	−4.584	0.000
Per capita household income	−2171.083	423.289	−5.129	0.000
Per capita household consumption	−602.290	294.187	−2.047	0.041
Total household consumption	−1128.918	1247.378	−.905	0.366
Consumption on food	686.650	425.237	1.615	0.107
Consumption on education	289.662	140.060	2.068	0.039
Consumption on health	511.730	236.006	2.168	0.031

Source: Authors' calculation using SPSS 16.

The set of control variables, which are not reported in Table 3, include initial income, age, education, sex, occupation, and average working hours of the *i*th respondent/household. The summary results of the 24 OLS equations are presented in Table 3.

Table 3 includes some very interesting results. To save space and avoid unnecessary discussion, we will only discuss results that are statistically significant. After controlling for the impact of initial income, age, education, sex, occupation and working hours per day, the income of the respondents is positively influenced by all three measures of MFIs. The case with consumption of food, and health, is similar. While there is no meaningful association between total and per capita household income and type of the respondent and period with MFI, both the variables are negatively associated with loan size. In effect, the negative association between loan size and household total and per capita income preserves the purpose of the next model. The average loan size of the two financial institutions offering microloans is US$2000, while the average loan size of the two NGOs is US$200. Thus, in the very short run, paying back a comparatively large amount with mark-up should have different behavioural effects than paying back only a small principal amount. This is exactly what is implied by the results and confirmed by, although insignificantly, the negative relationship between loan size and household total and per capita consumption. That is, accidentally, loan size in the above case serves as a proxy for the effects of rate of interest on the impact variable. Having negative estimated coefficients implies that the rate of interest on microloans is negatively associated with poverty alleviation efforts, an issue that is further explored in the next model.

4.3. How impacts are affected by the type of MFI

We next estimate a set of eight regressions specified in equation (5), where the vector Z_i contains 'type of MFI' as a single variable. This is a dummy variable that equals 1 for MFIs charging a rate of interest on their loans and 0 otherwise. The set of the impact and explanatory variables is the same as in model 2 and the results are given in Table 4. Of the impact variables, income of the respondent, total household income and per capita household income are all statistically significant at the 1% level. However, the income of the respondent is positively influenced by being a client of an MFI charging an interest rate; the total and per capita household income, and the total and per capita household consumption are negatively influenced by the type of MFI. While the negative impact of the rate of interest on household income and consumption is expected (Khan et al., 2015), the positive relationship between income of the respondent and type of MFI needs clarification. Perhaps this is not the least expected result either, as any transfer of income, irrespective of the mode of repayment, should increase the income of the recipient (Bateman, 2010). But what matters for the poverty alleviation effort is the trickledown effect of the transfer, which clearly is a negative one for microloans based on interest.

This substantiates the hypothesis proposed by Khan et al. (2015) but what about the positive influence of the type of MFI on consumption on education and health? Apparently, these results as reported in Table 3 are in sharp contrast to the hypothesis of Khan et al. (2015). Of the possible explanations, household education and initial income has already been controlled for. A plausible explanation is that a household may be considering consumption on health and education as an investment in the future, which may be determined by something other than the type of MFI or household education and initial income. One such factor could be the accumulated wealth and other assets. Since clients of the financial institutions have already fulfilled the collateral requirements, it seems that those are the respondents having more wealth and assets and hence their expenditure on health and education is positively associated with their type of MFI. Thus, the apparently positive association between consumption on education and health and the type of MFI may be due to the fact that the clients of the financial institutions are wealthier than those of the NGOs and hence invest more in education and health.

5. Conclusion

This paper examined two of the contemporary controversies related to the dominant practices of microcredit institutions that aim at poverty alleviation in less developed areas. The first controversy has to do with the trade-off between sustainability and the original mission of MFIs. The second controversy focuses on the poverty elimination potential of the old poverty lending approach versus the new financial system approach. For this purpose, we have purposively collected primary data from 568 respondents in North-Western Pakistan and analysed the data with up-to-date econometric techniques. The results of the first estimated model show that MFIs hardly cater for their advertised goals in the area. That is, the MFIs neither reach the core poor nor do they cater for women's empowerment in the area.

To compare the old poverty lending approach with the new financial system approach, we have first estimated 24 OLS regressions using the total sample of 568 respondents and three different measures of MFI characteristics; the type of the respondent, the loan size and the

period of the *i*th respondent with various MFIs. The results show that all three measures of the MFI characteristics positively affect the income of the respondent, household consumption on food and consumption on health. However, the loan size is negatively associated with total and per capita household income, which may be due to the fact that the budget tightening effect of large loans outweighs the income augmenting effect.

Then we estimated a set of eight equations on the reduced sample of 317 respondents, all of them are either clients of the financial institutions (extending microloans based on the new financial system approach) or of the NGOs (extending microloans based on the old poverty lending approach) to know which of the two approaches is superior in alleviating poverty. Of all the impact variables, only the income of the respondent and consumption on health and education are positively influenced by being a client of the financial institutions, while the rest of the impact variables, most of which capture the trickledown effect of microloans, are negatively affected. Since it is the trickledown effect of microloans that counts in poverty alleviation, and since consumption on education and health are determined by things other than being a client of a financial institution, our results show that the old poverty lending approach is superior to the new financial system approach in poverty alleviation.

6. Policy implications

The findings reported in Section 4 have a number of policy implications for MFIs, governments and other multinational institutions working for poverty alleviation. In particular, the following important findings from the above analysis can help guide the future policy discourse with respect to poverty alleviation and women's empowerment.

- The probability of becoming a successful MFI applicant increases with income and standard of living.
- Household female-to-male ratio is inversely related to the probability of becoming a successful MFI applicant.
- The income of the respondent, consumption on food, education and health are positively influenced by being a client of the MFI, irrespective of whether the MFI follows the financial lending or poverty lending approach.
- Household consumption (total and per capita) and income (total and per capita) are negatively associated with loan size (as proxy of interest rate in our case) and type of MFI (again as a proxy of interest rate).

The findings reported in the first bullet point is the result of the drying off of funds with MFIs and the renewed stress on these MFIs to generate funds for themselves. Obviously, these MFIs seek to extend safer and profitable loans; respondents making up the core poor group may not be ideal for this purpose. The policy implication of this is very clear; that is, if MFIs are meant to reduce poverty, then they must be run in the welfarist domain supported by subsidies and grants rather than leaving these to the market.

The second finding regarding mission drift is the inverse relationship between household female-to-male ratio and the probability of becoming a successful MFI applicant. As already hinted at, there could be more direct measures of women's empowerment (such as the contribution of the MFI loan to female income, education, health and nutrition) but those are not realistic owing to the restrictions imposed by the local society on females. Thus, as

a crude but realistic measure, if MFIs are meant to empower women, they should extend loans to households having a larger female-to-male ratio. Unfortunately, this is not the case, and MFIs seems to drift from this mission as well. The third important finding highlighted above makes it even more desirable for MFIs to extend microloans to households having more females than males. This is so because if the MFI cannot lend directly to a female client (since female entrepreneurship is rare in the area), and if female education, health and nutrition cannot be targeted directly, an indirect way would be to advance credit facilities to households having a larger female-to-male ratio. The fruits of this, as is affirmed by the third highlighted finding, would be automatically reaped by the female household members.

The final important policy implication of our analysis that is related to the first one is provided by the negative association between the trickle down impact of microcredit and the rate that is charged by the MFI. As has been discussed elsewhere (Khan et al., 2015), charging a higher rate of interest on microloans would either cause the respondent to cease taking loans or would substitute more important household consumption to pay back the principal and the mark-up. Given this, the financial system approach, at best, can intensify the miseries of the poor. Thus, if the MFIs are meant to reduce poverty or any other similar goal, then the only way to achieve this goal is through the old poverty lending approach of subsidised microcredit.

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