

Credit Worthiness of Poor Women: A Comparison of Some Minimalist Credit Programmes in Asia: A Preliminary Analysis

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The recognition of credit as a powerful instrument for the alleviation of poverty in the developing countries has led to a multitude of programmes on agricultural credit, co-operatives, and integrated rural development in the past few decades. Agricultural or land development banks, commercial banks and co-operatives have sought "small borrowers" in theory but have, on the whole, failed to reach the poor, particularly women. The loan repayment rates in these programmes often have been very low which, together with below-market interest rates imposed by governments, has resulted in the stagnation of most third world credit institutions aimed at "small borrowers".

On the other hand, innovative Credit Delivery Systems (CDSs) for the poor or "poverty lending" has been on the increase in many developing countries over the last two or three decades. In stark contrast to the conventional credit programmes, these innovative experiments show extremely high repayment rates. More importantly, they reveal that the standard stereotypes are wildly inaccurate: that women are more creditworthy than men and the poor more creditworthy than the non-poor. These experiments include the Bedan Kredit Kecamatan (BKK), MBM and YIS programmes in Indonesia, Grameen Bank and Bangladesh Rural Advancement Committee (BRAC) in Bangladesh, Agha Khan Rural Support Programme (AKRSP) in Pakistan, Self Employed Women's Association (SEWA) and Working Women's Forum (WWF) in India, the Kababaihang Barangay of San Miguel, Bulacan (KBB) in the Philippines, Production Credit for Rural Women (PCRW) in Nepal, etc.

These programmes have been successful in reaching the poor, in improving their incomes, in building up their asset base, in mobilising savings, and above all in maintaining high repayment rates. The contrast between these and the conventional credit programmes shows that repayment performance patterns vary enormously across credit institutions and types of individuals. But there is still a dearth of empirical analysis of the factors affecting loan repayment. The abundant literature on countries' loan repayment performance stands in contrast with the modest number of papers on individual borrower behaviour.

The purpose of the present paper is to analyse the factors affecting loan repayment of borrowers as well as of institutions. It is hypothesised that the repayment performance of borrowers in the above-mentioned programmes is not a coincidence but a reflection of the internal strength of the programme: more specifically, a distinct design, management philosophy, and implementation methodology. The paper is organised into four sections. Section II gives the background of these CDSs. Section III lays down the theoretical framework for analysing loan repayment based on the specific characteristics of these programmes. Section IV outlines the empirical model to be tested when the data is available.

SECTION II

"Poverty lending" operates to assist the poorest of the poor who would be unreachable by conventional methods and is based on no-collateral loans enforced by peer pressure. It supports the economic development of self-employed producers who have little or no assets or working capital and no reliable source of income. Often they are faced with multiple disadvantages such as gender, race or caste. Most of the participants are women because they are disproportionately represented among the poor and because they are often engaged in small-scale activities suitable for poverty lending.

The poverty lending models or innovative CDSs have successfully solved the problems which all lenders face vis-à-vis borrowers: the potential problem of "hidden information" to use Arrow's terminology—or, as it is usually called, adverse selection; the problem of "hidden action" or, as it is usually called, moral hazard; and the problem of enforcement. All lenders face these three problems arising from asymmetric information and the fact that disbursement and repayment are necessarily separated in time. First, if the lender cannot at reasonable cost distinguish good borrowers from bad, he faces a potential problem of "hidden information" or adverse selection. Second, in an uncertain environment, where poor returns from the borrower's activities may result from bad luck rather than indolence, prohibitively costly monitoring of the borrower's actions will confront the lender with the problem of "hidden action" or moral hazard. Third, when the loan falls due, the lender must recover principal and interest, either out of the borrower's returns or, if these are insufficient, out of any collateral specified in the loan contract. Thus he faces a potential problem of enforcement.

The problem of adverse selection is taken very seriously by moneylenders for example. Commercial formal credit sources try to solve it by collateral requirements but this does not work. Moneylenders on the other hand solve it by confining their lending to a group of known clients in a village so that they have an intimate knowledge of the borrower's character and circumstances.¹ As a contrast, poverty

¹It has been reported that the Agricultural Bank of Malaysia had a scheme where it appointed some co-operatives, farmer's organisations and private lenders as local credit agents of the bank. The scheme was considered to be very successful [Bell (1990), p. 324].

lending solves the problem of adverse selection through a grass-roots approach, high staff intensity, more borrower-lender contact, eligibility criteria, etc.

The problem of moral hazard is immense for formal sector lending but even moneylenders have not fully overcome it although they can distinguish between bad luck and poor performance, especially when their clients reside in the same villages. Poverty lending solves the problem of moral hazard by tying credit and savings together, by having a built-in mechanism for emergency fund to handle unforeseen shocks (due to weather or price changes), and by its emphasis on borrower-initiated lending to avoid loan use in risky unknown ventures where markets or input supplies are uncertain.

Finally the problem of enforcement is solved in formal sector lending by evoking fear, either of loss of pledged collateral or legal harassment. This, however, is not taken seriously by men, especially the non-poor, since they know the real powerlessness of these institutions. The moneylender, on the other hand, exercises real control over the poor borrowers since they depend on him for several services and he often is the middlemen for the disposal of output. Poverty lending programmes solve this problem of enforcement by using the carrot-and-stick method: they use the threat of expulsion of the whole group of the defaulting borrower from the programme and hence peer pressure as the stick; and the promise of another loan after repayment of the first one as the carrot. Moreover, the problem of enforcement is mitigated in some of these programmes by package deals where the organisation assists borrowers in supply of inputs, marketing of output, and credit.

There are a variety of poverty lending models that have been adapted to serve different target groups in the third world. In Asia, most of these CDSs can be classified as:

(i) *Specialised Banks for the Poor* such as Grameen Bank of Bangladesh. The GB (loaning, by '91, \$244 million to 1 million borrowers, 92 percent being women) is unique because it has changed the perception of sound banking practice all over the world, especially of aid-giving agencies like the World Bank. More specifically, it has shown that the poor, particularly women, are bankable; and that the traditional asset collateral is neither a necessary nor a sufficient condition for high repayment rates. It is not surprising, therefore, that there are now replications of GB in the Third World as well as in Europe and North America. The GB provides collateral-free loans to the poor for self-selected income generating activities, on the condition that borrowers form homogenous groups of five, which serves both as a support and peer pressure group for repayment of loan. The loan is non-subsized, small in size,² released in the form of cash, and payable in equal weekly installments over a year—all of which ensures that the loan will not be allocated to the non-poor.

²The average loan is \$ 67 and the maximum is less than \$ 200.

(ii) *Public Sector Projects*, which refers to credit programmes that are administered directly by banks in the formal sector without the use of intermediaries, such as the BKK, KUPEDES and SIMPEDES programmes of Bank Rakyat Indonesia. The BKK (serving 800,000 borrowers and a million savers) provides non-subsized, small size loans (90 percent being less than \$60) for non-agricultural activities only. Peer pressure to repay, close lender-borrower contact, and a strong commitment by national, provincial and local governments make the system work. The KUPEDES (with \$470 million in loans to 1.5 million borrowers) is a financially sustainable credit programme with the potential of reaching a very large number of small borrowers that other poverty lending programmes may not.

(iii) *"Package" Programmes* where credit is just one of the several components in the package, which often includes any combination of the following: infrastructure development, technology, training and extension, and market information and facilities. Examples of such programmes include AKRSP in Pakistan, BRAC in Bangladesh, etc.

(iv) *Intermediary Approach Models* such as SEWA and WWF of India, which play the role of a broker between the formal lending institution and the poor beneficiaries who do not have access to these institutions when left on their own. The difficulties experienced in being a pure credit intermediary prompted the WWF to set up its own Women's Co-operative and Credit Society, and SEWA to set up a co-operative bank for the poor.

SECTION III: THE THEORETICAL FRAMEWORK

The repayment behaviour of individual borrowers can be analysed from the traditional borrower side point of view, or the more recent lender side point of view [Becker and Lubuele (1991)]. The factors affecting delinquency from the borrower-side are either inability to repay or unwillingness to repay. The inability to repay may in turn be due to inadequate or uncertain incomes following unforeseen events such as bad weather, unpredicted price falls, or structural deficiencies such as inadequate markets, infrastructure or technology. The unwillingness to repay may either be due to the perception of the loan as a welfare grant or political patronage or because of intention to divert the loan to consumption purposes. On the other hand, the factors affecting delinquency from the lender side focus on the costs of delinquency/benefits of non-delinquency for the borrower. The costs of delinquency include the lender's punishment package (including the type of sanctions like loss of collateral or savings under the control of the lender, as well as harassment and inconveniences related to a lawsuit; the severity of sanctions; and the probability that they be imposed), and the lack of borrower's access to alternative credit sources. The benefits of non delinquency are the probability of the availability of subsequent loans. We will discuss each of these factors and see how one of the poverty lending

models—the Grameen Bank—has incorporated these into its philosophy and methodology.

1. Ability to Repay

Although the ability to repay is positively related to income and wealth, yet empirical evidence on formal lending all over the world shows high delinquency rates among the non-poor. So a low level of income *per se* is not a factor in delinquency. But unforeseen events (such as changes in weather or price) and structural deficiencies may well hinder a borrower's capacity to repay. The GB model enhances the borrower's ability to repay by restricting loans for income-generating activities only.³ Moreover, if the borrower's ability to repay has been genuinely impaired by unforeseen events, there is a built-in mechanism at Grameen to ensure repayment. This mechanism is the group savings fund and emergency fund to which members alone contribute and which serves as an insurance or contingency fund from which they can take loans without interest, upon the approval of the group. Similarly, to reduce or eliminate non-repayment due to structural bottlenecks of inadequate markets, infrastructure or technology, GB emphasises 'borrower knows best' philosophy, whereby loans are given to borrowers for self-selected income generating activities. Such activities are very likely to be those where the borrowers are already engaged in and on whose basis they have survived until now, or those in which they have a comparative advantage in terms of expertise, skills, markets, or technology. GB further ensures that borrowers invest in these activities and avoid risky ventures by its policy of no grace period on its loans.

2. Willingness to Repay

The willingness to repay is lessened if the loan is perceived as a welfare grant, or borrowers have political patronage, or if they can divert it to consumption. Since the GB loan is non-subsidised or at the market rate of interest, it cannot be perceived as a welfare grant. Borrowers do not have political patronage because the eligibility criteria, strictly enforced, is that they be poor. Finally the loan is given only for income generating activities.

3. Punishment Package

This includes the type of sanctions, the severity of the sanctions and the probability that they be imposed. One of the sanctions common in formal sector lending is the loss of the pledged collateral under the control of the lender. However, the power of large formal sector institutions to impose sanctions are nearly nonexistent. Experienced borrowers know that the sanctions are toothless, and can be ignored without fear of terrible retribution. It is no surprise, therefore,

³Subsequent loans, however, can be for houses.

that huge collateral seldom deters delinquents. Similarly, the common practice in commercial lending of rescheduling of the loan dilutes the punishment package. GB does not follow either of these practices. Accordingly, GB does not require collateral from borrowers nor does it reschedule loans. Instead, it uses peer pressure as the most severe sanction against defaulters (since the group is disqualified from ever receiving a loan if any member defaults). It should be noted here that the loss in social standing from defaulting on a loan of GB (or personal source) is far greater than the loss resulting from default to a public sector institution. Also, like several other NGO programmes, GB has the borrower's savings deposits with it, which is a form of collateral. Moreover, the regular weekly repayment pattern at GB ensures that one-time or temporary delinquents do not become permanent defaulters.

4. Benefits of Non-Delinquency

This refers to the probability of subsequent loans upon compliance with loan conditions, particularly repayment conditions.

5. Access to other Sources

Default is lower among groups who do not have access to alternative sources of credit. This applies to the poor in general and women in particular. Both supply and demand factors explain women's limited access to institutional credit, although supply factors are more important. Supply factors involve banks' unwillingness to lend to poor women (and men) who are small and inexperienced borrowers because of the high delivery cost of small loans (the transaction cost of screening, processing and monitoring a loan), the exorbitant foreclosure costs of such loans gone bad, and the fear of default on such loans because of the greater vulnerability of the poor to unforeseen economic shocks (natural disasters, weather, price fluctuation). Women also face a gender-specific problem, in that financial institutions view them as poor credit risks because of their lower incomes and productivity; and their inability to offer collateral. Demand factors relate to women's unwillingness and inability to apply for and accept credit from formal financial institutions due to several reasons. Most importantly, women, particularly in Third World Asian countries, are inhibited by custom from seeking credit because male family members traditionally act as links between the family unit and all commercial, legal, and political structures. Other reasons include the social inacceptability of being in debt, heavy workload, collateral requirements, cumbersome application procedures, the inaccessibility of bank offices, and the male bias of credit delivery mechanism.

The Grameen Bank gives loans only to the poor, 92 percent of whom are women. The Grameen experience has shown that the poor, and particularly women, are better credit risks provided they are targeted with loan size, lending criteria and repayment terms that are fine-tuned to their needs. Thus Grameen insists on small size of loan (and hence, monthly installment), short maturity, immediate loan

disbursement, flexible repayment terms, and so on. In fact, women's productivity has been at least as high as men's and repayment rates significantly better (often close to 100 percent). Women's better credit worthiness can perhaps be ascribed to better use of loan funds, a more prudent approach to borrowing, and a better sense of fiscal responsibility.

On the whole, all the theoretical factors affecting delinquency-ability to repay, willingness to repay, punishment package, benefits of non-delinquency, and access to other credit sources-operate to make women more credit-worthy and better credit risks than men. Although conventional wisdom considers women poor credit risks because of their low income, it is also true that women tend to be self-employed in the informal sector, particularly in petty selling, handicrafts etc. This suggests that women have wider project sets and more diversified or several activities than men who are concentrated in the formal sector and thus their *ability to repay* may be higher than men at similar income levels. Similarly, their *willingness to repay* may be higher because they are likely to have less of political patronage than men for various socio-economic reasons outlined earlier. Other characteristics that may be specific to women include their more pessimistic perception of the *punishment package*. Thus women perceive sanctions as more severe than they really are and the probability of these being imposed as higher than it really is because of their lack of familiarity with the real power of formal sector credit institutions (which is none). Also the consequences of delinquency (harassment, loss in social prestige, etc.) are perceived to be more severe by women because of their status.

Moreover, the *benefits of non-delinquency* are higher for women because it is plausible that a higher percentage of women is interested in subsequent credit from a given source. In part, this demand for credit stems from an absence of alternatives. Women have limited access not only to the formal credit sources, but also to such informal sources as moneylenders, shopkeepers, and commission agents. They have access primarily to personal sources (relatives, friends, and neighbours), and informal rotating savings and loan associations. It is also likely that the inventory and working capital intensive nature of retail trade, where women predominate, further adds to the importance of subsequent credit. Thus, under the punishment rule of refusing any subsequent credit once default occurs, a borrower who has chosen to seek a loan for a subsequent project will theoretically have a rate of default always equal to zero. In contrast, the borrower who rationally chooses not to seek a subsequent loan may have a positive rate of default.

Another feature associated to women is the fact that they have *limited access* to formal credit markets, as outlined earlier. Hence high quality female borrowers are often discouraged from participating in the formal credit market, or are excluded altogether, and they compete with low quality male borrowers in promotional credit markets.

SECTION IV: THE EMPIRICAL MODEL

The dependent variable is the *default rate*, or the rate of arrears. This rate is computed as $(1 - [\text{amount repaid}]) / (\text{amount due})$. This rate is computed for each individual loan. The dependent variable, the default rate, is to be regressed on combinations of variables drawn from the set of independent variables described below:

GENDER is the independent variable of greatest interest. It is hypothesised that the rate of default would be lower for women for reasons outlined earlier. The *INTEREST RATE* is considered as the measure of the interest burden, and is hypothesised to be positively related to the default rate. The variable *TIME* is an index over the period during which the loans were extended. Each period corresponds to the month/year when the specific loan was extended. A positive marginal effect of time means that loans extended later had a worse rate of default compared to loans extended earlier perhaps because of deterioration of the loan portfolio; whereas a negative marginal effect of time means that loans extended later had a better rate of default compared to loans extended earlier because of evolution of the loan environment or programme reputation.

The variables for specific *CREDIT DELIVERY SYSTEMS* (*GB, WWF, BRAC, etc.*) helps track the effects of institutional arrangements associated with these CDSs on the rate of default. The *SAVINGS RATIO* (savings per borrower) is included among the independent variables as the measure of ability to repay, given the willingness to repay, especially in unforeseen circumstances. So also is the *SECTOR OF ACTIVITY* since informal sector activities like trade are more diverse resulting in lower default rates. The theoretical model implies that the savings ratio would be negatively associated with the default rate. Additional independent variables are *SIZE* of the loan, the *MATURITY* of the loan, the *LENGTH OF GRACE PERIOD*, and the *FREQUENCY OF REPAYMENT*. It is hypothesised that size of the loan and length of the grace period would be positively associated with default rate, whereas frequency of repayment and maturity would be negatively associated with default rate.

It should be noted that several of these independent variables are connected and including all of them in a single regression may lead to problems of multicollinearity. The choice would depend on the availability of data. Unfortunately, the data on individual borrowers or loans in any of the poverty lending programmes is not yet available. As soon as it becomes available, the empirical model outlined above would be tested. In the meantime, what has been done is to test the model on the basis of data not on individual borrowers but on individual programmes such as Grameen Bank, Working Women's Forum, SEWA, AKRSP, etc. The unit of observation in this case is the particular poverty lending programme, the dependent variable is the overall default rate in the programme, and the independent variables are the percentage of women borrowers in the programme, the interest rate, the number of years since the start of the programme, the savings ratio in the programme, and the average loan size in the programme.

The results show that none of the independent variables are significant in explaining variations in the default rate. This is perhaps due to the fact that variations in the default rate between similar types of poverty lending programmes cannot be explained by variations in the above-mentioned independent variables since all of these programmes have a high percentage of women, high savings ratios, and small loans. Rather these variations may be due to differences in staff intensity and other omitted variables for which data is not available. The model can be empirically tested either if there is data on individual borrowers in any one programme (such as GB), or in one type of programme (poverty lending such as GB and BRAC and AKRSP) in one region (such as South Asia), or in different types of programmes (poverty lending as well as formal sector lending) in one country. Any or all of these would be done subsequently.

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Comments on
"Credit Worthiness of Poor Women: A Comparison of
Some Minimalist Credit Programmes in Asia:
A Preliminary Analysis"

This paper which discusses some of the different types of Credit Delivery Systems, is divided into 4 sections. Sections 1 and 2 deal with the different types of programmes, their background information and an evaluation of these programmes, Section 3 provides the theoretical framework for analysing loan repayments based on the distinct characteristics of the programmes, while Section 4 provides a model for testing the data.

The case studies are informative and have been well written out by the author bringing out the strength of the different programmes covered in the paper. There are however, a few aspects of the paper on which I have a few comments to make.

The title of the paper refers to the creditworthiness of poor women. Personally I do not understand why the term "poor" is used for women. The paper does not provide any definition for this term, nor is any criterion used for defining this particular category of women. Are we looking at the income groups or the socio economic indicators of this category of women or those women living below the poverty line? I assume the paper is looking at the low income groups of women. This however, created confusion because although the paper talks about "poor" women, but the programmes all deal with "poverty lending". The methodology and implication of "poverty lending" is very different from that of lending to low income groups. Similarly, the credit needs and creditworthiness of low income women are different from those groups of women in the poverty category, where the former group may need credit to generate additional income, either to improve their level of welfare or may desire to go into some rudimentary form of micro enterprise. In fact the carrot and stick method as suggested in the paper for overcoming problems of enforcement would be more relevant for those cases (especially incentive of additional loans after repayment of the first) where a level above poverty lending is envisaged.

The Grameen Bank is a good example of a success story. However, the model cannot be applied in Pakistan (especially for low income women) without meeting some preconditions. The socio cultural conditions of this region differ from those of Bangladesh. The low female literacy rate, lack of mobility, prevalent customs and traditions and the low saving rate are some of the factors that will have to be considered. More so, since the initiative for selecting the projects and its implementation depends exclusively on the women themselves (according to this model).

An analysis of the functioning of The First Women's Bank would have been a good example for Pakistan, firstly, because it is the first bank targeting women directly, and secondly, it would have highlighted the specific requirements and constraints faced by women in Pakistan.

Although the case studies used are good examples and well presented, they are all success stories. Some examples of limited success would have been more helpful in analysing the factors that affect the loan repayment pattern of low income women and the way that institutions respond to these situations. This would have helped to highlight the problems and constraints that women face in the credit market.

The paper has further discussed the relationship between the size of the loans and the rate of default. It would be useful if some cases of large amounts of loans to women were covered, so that the creditworthiness of women and the factors behind the creditworthiness of women could be assessed.

Section III is well covered on the whole. However, I tend to disagree with the reasons given for the better position of women in the "Willingness To Pay" situation. In my view the reason is due to the inherent nature of women where they feel more responsible to return the loans along with their perception of the punishment package, rather than absence of political patronage. I think that men in similar income groups would also lack the necessary political patronage to get their loans written off.

In Section IV, a model has been formulated and its drawbacks discussed. Further comments on the model can only be made after the relevant data is used and results analysed.

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