

TESTING THE TOOLS OF DEVELOPMENT: CREDIT PROGRAMMES, LOAN INVOLVEMENT, AND WOMEN'S EMPOWERMENT

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1 INTRODUCTION¹

In recent years, issuing credit to women has developed wide acceptance as a means of economic development. 'Empowerment' of women is a frequently articulated goal of these development strategies. Though never precisely defined, it is an active concept in both academic and development work because it approximately articulates a change we hope to witness. 'Empowered,' the borrower wisely invests money in a successful enterprise, her husband stops beating her, she sends her children to school, she improves the health and nutrition of her family, and she participates in major family decisions. 'Empowerment,' and the frequently articulated example of the empowered borrower, have become the **presumed** results of credit programmes.

Although it is commonly presumed to be, credit itself is not empowering. By definition, it is actually a liability. In order for the liability to be empowering, it must be a **means**. To further the hypothetical example, when a borrower invests her money and ingenuity into a successful enterprise, she develops knowledge and the resulting respect of her husband and neighbours enable the presumed changes described above. Organizations that wish to empower women should design their programmes to create for workers, borrowers, and husbands **incentives** that promote women's empowerment through **well-defined** and **observable** empowerment-promoting tasks and evaluation criteria. Appropriate tasks and corresponding evaluation criteria, designed to increase borrower's direct involvement in the activity funded by her loan, can make credit a **means to empowerment**.

To appreciate these processes, I studied credit organizations in Bangladesh. The three compared in this article are Bangladesh Rural Advancement Committee (BRAC), a Bangladeshi non-government

organization (NGO) operating nationally; Grameen Bank (GB), a Bangladeshi development bank operating nationally; and Save the Children (USA)/Bangladesh Field Office (SCF), an international NGO operating in a few regions in Bangladesh. Each utilizes a widely respected and tested methodology in its credit practices: group guarantee lending. The programmes extend loans to women to support small scale activities. The women meet regularly in their villages to make savings deposits and to pay instalments. Lending costs are lower than typical bank costs because group members approve new loans and guarantee each other's loans. Peer pressure encourages high repayment rates because group eligibility for future loans depends on **group** repayment. The borrowers absorb the otherwise high institutional costs of new issuance and collections.

Though the organizations have similarities in their lending strategies, their differences in management, implementation methods, and corporate culture reflect their different goals. Specifically, BRAC's guiding goal is social empowerment of the rural poor in Bangladesh, GB's is profitable lending to the rural poor on a large scale, and SCF's is empowerment of women to the benefit of children in its rural impact areas. Even though SCF's goal is instrumental to another goal, to have a lasting positive impact on the lives of disadvantaged children, empowering women fits my definition of a 'guiding goal,' the dominant goal in shaping the programme design.² To varying degrees the three organizations articulate a goal related to women's empowerment, but only SCF has women's empowerment as its guiding goal.

In the case of SCF, the guiding goal and women's empowerment are synonymous so that programme design characteristics tend (though not perfectly) to promote empowerment. In the case of BRAC and

¹ I extend sincere thanks to Dorothy D' Costa and Jagadindra Majumder for their thoughtful and tireless contributions, to the J. William Fulbright Foreign Scholarship Board for their support, and to the borrowers and staff who generously offered their time, insights, and hospitality. Data for this study was collected in 1993.

² For a discussion of the role of a goal or mission see Wilson (1989). On the role of the means-ends relationship in the determination of final goals and intermediate objectives see Simon (1976).

GB, empowerment of women is an ancillary goal. As a result, in their programme designs, women's empowerment is subordinated to, and sometimes undermined by, their guiding goals of empowerment of the poor and profitable lending to the poor on a large scale, respectively.

In the manuscript 'Empowerment by Design' I describe the organizations' credit programme design features, the incentives they create for their workers and borrowers, and the mechanisms by which the programme design may contribute to the likelihood that a woman borrower will increase her knowledge as a result of borrowing.³ I argue that where management translates the guiding goal into clearly defined tasks, the goal is most likely to be achieved.⁴ Each programme's design reflects not only its goal, but also its choices about what tasks are necessary and best pursued in the context of rural Bangladesh. The data presented in this article shows that more than the borrower's lending organization, her direct participation in the labour, selling, and most of all accounting for her loan-funded activity has demonstrated impact on her empowerment through credit.

In the second section of this article, I argue that credit programmes form in a specific formal and informal institutional context, evolve in response to changes in that context, and can also make programmatic choices designed to influence institutional change. This section provides examples of organizations' programmatic features that are designed to work within or against the institutional constraints of rural Bangladesh in attempts to empower women. For the purposes of my argument institutional constraints and cultural constraints are functional equivalents. However, 'institutional' is the more accurate choice because it incorporates formal legal structures, formal and informal religious rules, and local practices and norms. By referring to 'institutional change,' rather than to 'cultural change,' I emphasize that changes in institutions can and do emanate from within a culture and are not by definition suggestions from outsiders.

Section 3 outlines the general model of the factors affecting women's empowerment and the impact of empowerment on women's lives. Empowerment

can be measured in a number of ways, but it is not a directly measurable variable. It is instead measured by proxies such as health, education level, or knowledge. In this article I use one measure, a borrower's knowledge about the accounting for her loan activity, as the indicator of empowerment.

In Section 4 I present a probit model based on a subset of the factors captured in the general model, and propose the hypothesized sign and significance of the variables of the model. Section 5 presents persuasive statistical evidence that an important aspect of empowerment, knowledge, depends on direct loan involvement, particularly involvement in selling and marketing. In conclusion, I discuss the implications of the model for programme development.

Obstacles to promoting women's empowerment may come from 1) an organization's choice not to make it the guiding goal or 2) problems in defining incentives and evaluation criteria that make women's empowerment a goal that workers understand and share. This paper argues that for those organizations that choose to make women's empowerment their guiding goal, borrower involvement in the loan-funded activity is an understandable and measurable goal that has demonstrated impact on women's empowerment.

2 INSTITUTIONAL CONTEXT

One way to consider women's empowerment is as a change in the context of a woman's life that enables her increased capacity to lead a fulfilling human life. Without ignoring the important philosophical, social and economic problem of articulating what a 'fulfilling human life' entails, for the purposes of this article, let empowerment be considered a positive change in a woman's life circumstances.⁵ Further, I define a woman's life circumstances as characterized by external qualities such as her status in the family, health, educational level, and experiential knowledge as well as by internal qualities such as self-awareness and self-confidence. I assume that knowledge improves one's life circumstances, whatever the context, but this assumption is not necessary for the argument.

³ For detailed discussion of the programmes see Ackerly (unpublished manuscript 1994).

⁴ For a discussion of tasks and goals see Wilson (1989).

⁵ See Nussbaum and Sen (1989) and also the contributions in Nussbaum and Sen (1993).

In Institutions, Institutional Change, and Economic Performance, Douglass C. North defines context as a specific set of formal and informal institutions. Institutions are both formal, as in rules and contracts, and informal, as in social norms and cultural practices. Formal and informal institutions exist in the polity, market, and social community. In rural Bangladesh, the social community includes familial and kinship organizations, 'patron-client' relationships, village organizations such as the *shalish* (non-governmental village court), NGOs, and social and political organizations.

The institutional context affects what organizations come into existence and what form they take. After independence in Bangladesh, the government was inexperienced and faced the challenge of promoting political, social, and economic stability in a war torn country prone to natural disasters. Local and international NGOs formed and have changed over time in order to meet the needs of the population. For example, in response to perceived changes in social needs, BRAC has been a relief organization, a social movement organization, and a credit organization.

Although organizations form in the context of given formal and informal institutions, they may also affect that institutional context, especially over time (North 1990). Institutions are the environmental constraints and incentive structures which affect organizational formation and change, but organizations, created under the structures of a given institutional environment, may contribute to the evolution of that institutional environment.

For example, credit organizations in Bangladesh have been formed in an environment that constrains women's economic opportunities through social and political means and yet have managed to change that environment. Rural and poor women in Bangladesh normally do not have access to institutional credit. There is an informal credit market among family and close neighbours which provides small loans for emergencies, but by virtue of their poverty, larger sums must be acquired from the rich people of the village.⁶ Thus, **by virtue of its presence**, a credit programme alters the context of women's lives. In order to operate, in order to

hold meetings, and in order for husbands to allow their wives to attend meetings, credit programme designers and implementors must respect the existing constraints and work within them to some extent. At the same time, those organizations which effectively seek to empower women try to change the informal institutional constraints on women's lives. Specifically, they try to affect market and familial constraints by creating incentives for women's direct involvement in their loan-funded activity.

In Bangladesh, rural women are not accepted in the market place. Though they work to contribute to family well-being in the *bari* (homestead or family compound), they rely on men to conduct most market transactions. Thus income-generation is normally attributed to men regardless of the degree of women's labour contribution. For example, a traditional rural activity commonly funded by credit is paddy processing.⁷ For this activity a woman takes credit and gives the money to her husband to purchase unprocessed paddy at the market. The woman, sometimes with the help of other family members including her husband, processes the paddy into rice or muri (puffed rice). The husband then takes the processed paddy to market for sale. Although the activity is funded by the woman's credit and she contributes labour to the product sold, the economic control of the activity rests with the man by virtue of his access to the market.

Some programmes promote women's access to, and knowledge of, the market by bringing the market to the woman, challenging norms, and developing women's market knowledge. For example, the structure of BRAC's poultry programme enables many economic transactions to take place within the *bari*. Similarly, SCF encourages the non-traditional activity of fish pond management. Women take on more of the financial management because sales are made at the fish pond and not the market. As discussed shortly, involvement in selling and accounting enhances the probability of empowerment through credit more than that of labour contribution (see Table 3).

Programmes can promote women's knowledge informally or formally. SCF informally promotes the

⁶ White (1992) describes a Bangladeshi village economy wherein women borrow from women of elite households and men from elite men. Frequently, according to White, the men and women do not know of the others' transactions.

⁷ In this study 37.3 per cent of loans were invested in paddy processing. Other studies concur that paddy processing is a common use of loan funds Goetz and Sen Gupta (1994), Grameen Bank (1992), Hossain (1984), BRAC (1993).

value of women's market knowledge and accounting responsibility through meetings with the village elite, with husbands, and with women in groups. In one village, borrowers thought our questions about loan use were insulting: 'we know; of course we know,' they shouted. The women share the SCF value of market knowledge. Like BRAC and GB borrowers, most SCF women rely on their husbands and sons for market access. Not formally, through the loan issuing implementation methods, but informally, in weekly meetings, borrowers are encouraged to seek market knowledge. By contrast, Shakti Foundation, an urban lending organization included in this study but not this article, promotes knowledge formally. Shakti makes loan approval subject to the husband's sharing market information with his wife and her being able to demonstrate her knowledge at the time of issuance.

As an alternative to, or in addition to, market-related programme features, credit programmes can work within, or work to change, the informal institution of male control over family resources. Due to the constraints described above, women have less power in the family relative to their husbands and on many matters relative to their sons. This is not to say that the interests of women and husbands are always or even frequently opposed, but rather that for the most part the authority of family decision-making is socially agreed to rest with husbands.

Some credit programmes work within the confines of male hierarchy by allowing women borrowers to be a means of credit and income earning for their husbands. Formally, programmes do not articulate using women as means to family credit as a programme task. However, at the grassroots level, staff (and husbands) articulate that one important programme contribution to rural development is increasing a family's and husband's earning potential by loaning to women who *kaj kori na*, 'do not work,' and therefore have time to attend meetings. At the senior programme design and managerial levels, GB officials assert that, though men's use of women's loans is not intended in GB's programme design, since the family benefits economically, bank workers should not discourage the practice. GB has formalized this understanding by offering larger 'family' loans to women who have good repayment records and who have family members

able to help utilize the loan. Without programme features designed to prevent husband's appropriation of women's loans, the institutions of rural Bangladesh make women's credit functionally family credit.

Family credit can be more or less exploitative of women Greenlaugh (1991). As discussed above, due to institutional limitations on women's access to markets, most family earnings, though perhaps earned by the labour of many, enters the family as income through the husband (or male head of household). Thus, though lending to families through women increases the family income, borrowing leaves women exposed to their husbands' willingness to give them the instalment money or to share market information with them.

When women give their credit money to their husbands for investment, any number of scenarios are possible. I have grouped these into four.⁸ In scenario one, the husband gives the wife most of the earnings. The wife manages the household expenses, repayment and savings. In scenario two, the husband manages the finances and gives the wife the household expense and instalment moneys. In scenario three, the husband gives the wife the household funds, and she must manage the instalment payment from that. Depending on how much he gives her, scenario three can result in reduced family nutrition particularly for women and children as there is less money available for food. In scenario four, the husband denies the obligation, and the wife must endure beatings and risk abandonment in order to get the repayment money. In the case of abandonment, she must borrow informally to meet repayment demands.

Under the first scenario, the woman has increased financial responsibility and gains knowledge, respect within the family, and respect from outsiders. Under the second scenario, some of the same qualities may develop if the wife is significantly involved in the activity or if she is appreciated as the means to the credit although the husband retains most or all financial responsibility. In the last two scenarios, the woman's responsibility for her credit is not matched by her economic and political resources within the family. Note that given the market institutions of Bangladesh, in all four scenarios the husband controls the finances and at his

⁸ Goetz and Sen Gupta (1994) identify roughly the same categories of intrahousehold management of loan funds.

discretion gives responsibility and resources to his wife. In all four scenarios, women are in effect a means to credit for the family and they are means to reduce collections costs for the lending organization (Goetz and Gupta 1994).

Credit programmes have developed various techniques to circumvent or eliminate the institutional limits on women in families. Some encourage activities which traditionally use women's labour such as paddy processing, poultry raising, and animal husbandry. Such programmatic features may, under certain family circumstances, have a negative effect on empowerment because traditional activities increase the work load of women and under scenario three or four, credit burdens the woman. Under other circumstances they may promote empowerment (see table 3). Other programmes, such as BRAC subsector programmes and SCF fish culture programmes, promote women's knowledge and skill development particularly of traditionally men's activities. A legal mechanism of changing economic institutions is to document women's ownership of assets purchased with credit. In order to be eligible to receive a housing loan from BRAC and GB, the land and constructed house must be the legal property of the woman borrower. This has legal ramifications, but not necessarily socially visible ones.

These programmatic features reflect organizational choices about whether or not, and how, to challenge formal and informal institutions. North (1990) argues that organizational choices may be limited by their formal and informal institutional context. The variety of credit programme designs in the given institutional context of rural Bangladesh demonstrates that within the bounds of institutional constraints **there remains room for choice**. Credit programmes can choose to make women's empowerment their guiding goal. However, as Goetz argues regarding administration of public Women In Development initiatives, organizations may not make such choices because they, and the individuals who constitute them, are themselves products of a gendered society – a society in which the formal and informal institutions perpetuate differences between men and women that are based on socially constructed notions of the sexes (Goetz 1992). In order to be successful, the management of credit programmes must choose to promote

women's empowerment and structure incentives that encourage workers to choose empowerment of women as their goal too.⁹ Wilson (1989) calls this creating a mission.

The examples above demonstrate that there are a variety of programmatic approaches to empowering women. The data presented below demonstrates that promoting women's involvement in the loan-funded activity enhances the empowerment that results from borrowing. Unlike empowerment, a borrower's loan use is an observable objective. By defining work for workers the subgoal of involvement, organizational management facilitates worker contributions to women's empowerment.

3 BORROWERS' EMPOWERMENT

Formal and informal institutions affect the ways in which borrowers use, and benefit from, their loans. The general model of the factors affecting women's empowerment as a result of borrowing includes the characteristics of a borrower's life circumstances, the loan, and a borrower's direct involvement in the loan-funded activity.

Characteristics of a borrower's life circumstances at the time of the loan include external qualities such as her status in the family, health, educational level, and experiential knowledge and internal qualities such as self-awareness and self-confidence. **Loan characteristics** refers to the features of each loan that are a function of the organizational agreement between a borrower and a lending organization. They include location, lending organization, loan amount, number of years the borrower has taken loans from the given organization, and whether or not the borrower is a centre or group chair (terms I explain shortly). **Loan involvement** refers to a borrower's direct contribution of labour to all or part of the activity, purchase of inputs, sale of output, and accounting for the loan. The circumstances of a borrower's life at the time of the loan (for example the extent to which she is healthy and self-confident) probably has the most significant impact on whether or not the processes of borrowing results in a positive change in the circumstances of her life. The other characteristics, however, are important and can be influenced by the lending organization.

⁹ In Ackerly (1994) and in the conclusion of this paper I discuss ways in which credit programmes have done this.

For the purposes of comparing credit organizations, experiential knowledge is an appropriate measure of empowerment. All the organizations studied expect their borrowers to be responsible for repaying the credit, therefore knowledge of accounting for the activity is a measurement of empowerment that is related to an objective common to all. It does not bias the study toward the measurement of variables that one or more of the organizations may try to develop through non-credit programmatic efforts such as health, education, or legal awareness programmes.

The general model depicts that within the formal and informal institutional context of a given Bangladeshi rural community, the processes of taking out a loan and investing it in an activity will change the borrower by empowering her. The change will be visible in her life circumstances: i.e., family status, health, education, and knowledge. Clearly, the formal and informal institutional environment that constrains Bangladeshi women in society and in their families affects the programme design of various organizations and the ability of a woman to turn the liability of credit into the power to improve her life circumstances. However, as discussed above, within the constraints of social institutions, organizations have choices as to how to lend to women. The following model is specified so as to ask, given an institutional environment and borrower life circumstances, what role do loan characteristics and loan involvement of the borrower play in increasing the likelihood that credit leads to empowerment?

4 THE PROBIT MODEL: INCREASED KNOWLEDGE AS A FUNCTION OF BORROWING

The following model captures the effects of loan characteristics and borrower direct involvement in the loan on knowledge of the loan-funded activity. In the model, the dependent variable is 'knowledge of accounting.' The explanatory variables are location, a borrower's direct contribution of labour to all or part of the activity, a borrower's direct involvement in buying inputs, selling output, and accounting for the loan, lending organization (BRAC, GB or SCF), loan amount, number of years

the borrower has taken loans from the given organization, and whether or not the borrower is a centre chair or group chair. The model accounts for a borrower's increased knowledge of accounting as a function of the **factors that credit programmes can affect.**

Knowledge of accounting. The dependent variable, knowledge, is a categorical variable. In Bengali the term 'accounting' can refer to bookkeeping, but generally means doing the calculations necessary to determine the most profitable quantities for production, the best time to buy and sell, and whether or not the enterprise is profitable. The interviewer asked the borrower about the input costs, product yield, and profitability of the loan-funded activity. The interviewer recorded a one if the borrower could answer the set of questions, zero if she could not. In this way knowledge was converted from the immeasurable quantity we think of in daily life to a Bernoulli random variable with a probability distribution that was a function of a set of variables related to the loan.¹⁰

Location. Location 2 is in Tangail, close to the district town of Tangail, and on an accessible route to Dhaka, the capital of Bangladesh. The area is less religiously conservative than remote Brahmanbaria (location 3) and BRAC, GB, and SCF had been operating in the area for twenty years. Better market accessibility, less social restrictions, and organizational experience contribute to a predicted positive and significant effect of being in location 2 on the likelihood that a borrower will have knowledge of accounting.

Direct involvement in the loan. Borrower direct participation in a loan activity is expected to increase the likelihood of her knowledge of the accounting for the activity. The experience of contributing labour to any step of the production process, buying inputs, selling output, or accounting for the activity is expected to increase her knowledge of the accounting. Of these, the effect of labour involvement is expected to be least. As described in the example of paddy husking above, women traditionally contribute labour to household output that is then sold by the husband in the market. As a

¹⁰ Goetz and Sen Gupta (1994) measure a similar variable 'control' which has five classifications ranking from full control which includes marketing to no involvement which is used to describe

a borrower's lack of labour contribution or knowledge of the activity. I consider knowledge to be a function of labour, buying, selling, and accounting involvement.

Table 1: Loans to women by lending organization, location, and loan involvement

	Number of Loans	Labour Involvement	Buying Involvement	Selling Involvement	Accounting Involvement	Knowledge of Accounting	
Total BRAC loans	238	69.3%	10.1%	25.2%	31.9%	49.2%	(36.6, 61.8)
Total GB loans	519	72.3	4.2	10.4	28.7	52.4	(43.9, 60.9)
Total SCF loans	69	82.6	11.6	17.4	36.2	62.3	(39.1, 85.5)
Total	826						
Location 2							
BRAC 2	74	39.2	2.7	8.1	27.0	35.1	(13.1, 57.1)
GB 2	86	66.3	16.3	26.7	66.3	77.9	(60.2, 95.6)
SCF 2	26	80.8	7.7	19.2	34.6	61.5	(21.2, 100.0)
Sub Total	186						
Location 3							
BRAC 3	164	82.9	13.4	32.9	34.1	55.5	(40.4, 70.6)
GB 3	433	73.4	1.8	7.2	21.2	47.3	(38.0, 56.6)
SCF 3	43	83.7	14.0	16.3	37.2	62.8	(32.8, 92.8)
Sub Total	640						

Notes: Housing and tubewell loans excluded.

Confidence intervals for knowledge of accounting are given in parentheses.

result, labour participation does not necessarily promote empowerment. The effect of involvement in buying and selling is expected to be greater, but less than that of accounting involvement, because participation in some aspects of the market activity does not yield complete knowledge of all aspects. Finally, accounting involvement is expected to yield the greatest impact on the probability that borrowing will empower the borrower. The variables measure involvement in, and not sole responsibility for, the activity.

Organization. All organizations were functioning well according to organizational standards in both locations. However, in location 2, SCF was completing a two year period of 'phasing over' their programmes to local control. Table 1 shows the percentages of borrowers by involvement in their loan-funded activity and by demonstrated knowledge of the accounting for their loan. The difference between the percentages of knowledge of accounting are statistically significant at a 95 per cent confidence level and are not due to chance in the sampling mechanism. Overall, and in location 3, more SCF borrowers were knowledgeable about accounting. Based on that data combined with the fact that the guiding goal of SCF is women's empowerment, I predict that the model will show that

borrowing from SCF increases the likelihood that the borrower will have knowledge of accounting, holding all other things constant.

Amount. The relationship of loan amount to empowerment is not obvious. The relationship depends on an intervening variable: the degree to which the husband appropriates the loan for his own use. When the husband of a borrower has his own income, small loan sizes are not likely to be appropriated by the husband. But larger loan amounts are of increased interest to the husband because such investment may lead to higher income relative to his current employment. In this case, an increase in amount is expected to decrease the likelihood of knowledge. On the other hand, when the husband of a borrower does not have his own income, small loan amounts may be appropriated by husbands. Under these circumstances, larger loan amounts may require the borrower's labour contribution (or help in buying, selling or accounting) in order for the loan to be efficiently utilized. In this case a decrease in amount is expected to decrease the likelihood of knowledge. Therefore, without knowledge of the husband's income and resources, the impact of amount on knowledge is expected to be unclear.¹¹ Amounts are in units of 1000 taka.

¹¹ Goetz and Gupta (1994) find the relationship of amount and empowerment unclear.

Table 2: Probit equation estimates of the effect of loan characteristics and borrower involvement on empowerment as measured by knowledge of accounting

Variable	Probit Estimate	Standard Error	P-Value
constant	-0.73655	0.16083	0%
Location 2, Tangail	-0.19503	0.19405	16%
Labour involvement	0.17595	0.12155	93%
Buying involvement	0.15545	0.41332	65%
Selling involvement	0.53902	0.24418 ^a	99%
Accounting involvement	2.61172	0.24027 ^a	100%
Grameen Bank (GB)	0.22966	0.13389	96%
Save the Children (SCF)	0.37986	0.21552 ^b	96%
Loan amount	-0.04281	0.04534	17%
Number of past loans	0.04967	0.06262	79%
Centre Chair	0.44733	0.34937 ^c	90%
Group Chair	0.01835	0.17414 ^c	54%

Loans correctly predicted: 77.5%

Log of the likelihood function -367.64

P-value indicates level of significance of each estimate

^a Standard errors are large due to multicollinearity. Many borrowers who are involved in the selling are also involved in accounting

^b Standard error is large due small sample size of SCF borrowers (69).

^c Standard error is large due to multicollinearity. All centre chairs are also group chairs.

Number. 'Number' refers to the number of annual loans a borrower has taken from an organization. With each loan, organizations increase the loan amount up to a limit. Therefore, number is expected to have the same effect as amount on empowerment. When the husband has employment, knowledge decreases with increases in number. When the husband is underemployed, knowledge increases with increases in number. In addition, experienced borrowers may be more familiar with the economics of their loan-funded activity. Given these competing factors, the impact of number on knowledge is expected to be unclear.

Centre chair or group chair. Each organization has centre and group chairs which are positions of responsibility held by borrowers. The terminology varies by organization, but the positions are similar. Typically, each centre (or *somity*) has one centre chair (who is also a group chair) and four to eight group chairs depending on the size of the centre. The group chairs seek out new borrowers when the centre is forming and play a leadership role in promoting repayment. The qualities that make one a chair are qualities that help the borrower

gain the confidence of other borrowers and of credit programme workers. These same qualities might also help the borrower gain the confidence of her husband. Therefore, a centre chair or group chair is expected to retain more involvement in her loan and therefore to be more likely to have knowledge of her loan. Relative to other variables in the model this effect is expected to be slight.

Probit analysis allows us to consider the impact of each independent variable, holding all other variables constant. The more common technique for such analysis is ordinary least squares multiple regression (OLS). Because knowledge of accounting is a dichotomous variable, the OLS assumptions are violated. Therefore, probit or logit analysis is appropriate. Though not presented here, the logit results are comparable to the probit results above.

5 RESULTS

The probit model was calculated based on 826 loans of 613 female borrowers. All 826 loans were for economically productive activities. The results are given in Table 2. The coefficients indicate the sign

Table 3: The effect of involvement on likelihood of empowerment

Involvement in	Location 2			Location 3		
	BRAC	GB	SCF	BRAC	GB	SCF
Labour	7.0%	6.8%	6.5%	6.9%	6.4%	5.9%
Buying ^a	6.2	5.8	5.5	5.9	5.3	4.9
Selling	9.0	19.1	17.6	19.4	17.1	15.4
Accounting	73.9	67.7	62.8	68.7	61.2	55.8

The numbers in each column are the projected increase in the probability of empowerment of each variable in the row headings when each variable of the column headings is fixed. For each column, all other variables are held constant at their mean. For example, a BRAC borrower in location 2 would increase her likelihood of empowerment by 73.9% if she were to be involved in the accounting for her loan.

^a Note the coefficient of buying involvement was significant only at the 65% level.

and order of magnitude of the effect of each variable on the likelihood that borrowing will result in increased knowledge of the loan-funded activity.

Contrary to what is expected, the coefficient of location 2 is not significant. In addition, the coefficients of amount, number, and group chair are not statistically significant. The effect of centre chair is positive and significant at the 90 per cent confidence level.

As expected labour, selling and accounting participation contribute significantly to borrower knowledge. The effect of labour is the least and the effect of accounting is the most. The surprising finding is that the buying involvement coefficient is not significant and that the labour involvement coefficient is not larger. The analysis demonstrates that production alone does not contribute to empowerment. **Rather, knowledge and empowerment come through market access.**

The coefficients indicate that given certain loan characteristics and loan involvement, a borrower will be more likely to be empowered if she borrows from GB or SCF than if she borrows from BRAC. However, there is no significant difference between the coefficients of SCF and GB.¹² At first glance this result is surprising because GB's guiding goal is not empowerment of women, but that of SCF is. The model estimates the coefficient of each variable by holding all other variables constant. A GB borrower is as likely to be empowered as a SCF borrower,

holding all other variables constant. But, in fact, all other things are not held constant. In location 3, GB borrowers are less likely than SCF borrowers to be involved in the labour, buying, selling and accounting for their loans. Because labour, selling and accounting significantly impact empowerment, and because more SCF borrowers are involved in the labour, selling and accounting for their loans, SCF borrowers are more likely to be empowered. As a result, Table 1 shows that, in location 3, smaller percentages of GB borrowers are knowledgeable about their loans.

By contrast, in location 2, GB borrowers are generally more involved in their loan activities than SCF borrowers. This is most likely due to the fact that SCF is closing its office in Tangail in order to focus its resources in Brahmanbaria. Table 3 shows the effect of involvement in the loan activity on the probability that borrowing leads to empowerment for borrowers of each organization in both locations.

Table 3 highlights the relative lack of variability in the impact of involvement between organizations when all other variables are held constant. But clearly, an increase in any involvement in the loan-activity increases the likelihood of empowerment. The impact of accounting involvement on accounting knowledge is not 100 per cent because some borrowers, though they are involved in the accounting, may 1) share this responsibility with their husbands and therefore not get full information

¹² $t = .72249$. This was confirmed through alternate specifications of the model the results of which are not reported here.

about the accounting or 2) may not have the ability to account properly and therefore can't answer the interviewer's questions.

The probit analysis models the impact of each variable holding all other variables within the model constant. However, the life circumstances of a borrower at the time of the loan may also affect empowerment. Moreover, it is possible for lending organizations to affect the characteristics of borrower life circumstances at the time a loan is issued. Borrower selection, group training prior to loan issuance, health and education programmes, and legal training may all affect a woman's propensity to be empowered through credit. Table 4 gives the impact on the likelihood of being empowered for an individual with life circumstances (such as good health or self-confidence) that lend her to be more (80 per cent) or less (20 per cent) likely to be empowered through borrowing.

The GB and SCF columns show that the incremental impact is greatest in the 40-50 per cent range. This is a function of the probit model and is consistent with intuition. For borrowers who have a low initial

probability of being empowered, the incremental increase in likelihood of being empowered as a result of borrowing from GB or SCF is less than for someone whose life circumstances gave her more propensity to be empowered. At the other end of the spectrum, the incremental impact on a borrower whose life circumstances make her more likely to be empowered would be less because the borrower would already be highly likely to be empowered.

The measures of involvement behave slightly differently. For selling, the point of inflection is 30 per cent and for accounting the impact is higher than the others but steadily decreasing. As a result of accounting involvement, a borrower with an initial propensity to be empowered of 20 per cent has an incremental propensity to be empowered of 76.2 per cent or has an 96.2 per cent probability of being empowered. For each incremental change in a borrower's initial propensity to be empowered, the incremental impact declines but the likelihood that the borrower is empowered approaches 100 per cent. In other words, a borrower whose life circumstances include high degrees of family status, health, education, knowledge, self-awareness, and

Table 4: The effect of organization and involvement on the likelihood of an individual being empowered through borrowing

Probability of an Individual being Empowered	GB ^a	SCF ^a	Labour ^b	Selling ^b	Accounting ^b
20.0%	7.0	12.2	5.3	18.1	76.2
30.0	8.4	14.3	6.4	20.6	68.2
40.0	9.1	15.0	6.9	21.2	59.1
50.0	9.1	14.8	7.0	20.5	49.5
60.0	8.5	13.7	6.6	18.6	39.8
70.0	7.5	11.7	5.8	15.6	29.9
80.0	5.8	8.9	4.6	11.6	20.0

Notes: The effect on the probability of an individual being empowered through credit depends on the probability that the individual would otherwise be empowered. The latter is a function of circumstances not captured in the probit model. The numbers in each column are the projected increases in the probability of empowerment of the variable of that column over the percentage given in the row heading. For example, for a borrower with life circumstances that give her a 50% probability of being empowered through credit, the incremental benefit of doing the selling herself is 20.5%. Because she is involved in the selling of her production, the borrower has an 70.5% probability of being empowered through credit, **holding all other things constant.**

^a BRAC is not given because it is the base case.

^b The incremental impact of labour, selling and accounting apply to borrowers of any organization.

self-confidence would be expected to have knowledge of her loan. Also note that regardless of a borrower's life circumstances at the time of the loan, selling and accounting involvement have a greater impact on empowerment than labour involvement

6 CONCLUSION

Within the constraints of the formal and informal institutions of rural Bangladesh, credit programmes have choices about whether or not, and how to, empower women borrowers. The model above shows that encouraging and enabling women to participate directly in the activity funded by their loan increases the likelihood of women's empowerment as a result of borrowing. The most promising credit programme design features for promoting the goal of women's empowerment are those which translate that intangible goal into the observable subgoal of women's direct involvement in the activity funded by their loan.

The policy implication of this work **is not** that credit programmes should promote women's labour involvement in the loan activity. Although labour involvement can contribute to knowledge of the activity, alone, labour involvement contributes to the treatment of women as means to family credit and of husbands as income earners. The possibilities of adverse scenarios, and their associated negative effects on women, such as over-work and fatigue or malnutrition especially for pregnant and nursing women, mean that labour should not be the focus of empowerment efforts. Instead, the model directs our attention to selling and accounting involvement in the loan activity and the empowerment-promoting techniques of lending organizations. In order to empower borrowers, programmes should focus their efforts on increased market activity and complement those efforts with non-market related means of changing the institutional environment.

One non-market method is hiring women in order to promote changes in attitudes about women by example. SCF has done a particularly noteworthy job in this regard. SCF hires local women as Group Promoters. In addition, 43 per cent of SCF salaried staff are women compared with 10 per cent and 9

per cent of BRAC and GB staff respectively.¹³ Moreover, SCF has a goal of gender equality at all levels of management. In order to promote women's recruitment and retention, SCF's field programme has specific design features that are encouraging to women. For example, in the field, women staff do not have to handle large sums of money which can be a source of perceived security risk. Weekly, a male office assistant goes to a collection post and borrowers with payments due bring them there. Using the collection post provides secure working conditions for women who travel to and from meetings along remote roads or across paddy fields.

In addition, workers live close to the borrowers on secure compounds and thus can easily return to the compound between meetings to go to the bathroom, drink water, and eat, thereby making their work socially and physically more comfortable and reducing health risks (Goetz and Sen Gupta 1995). Moreover, the security of the compound makes women's SCF employment acceptable to their husbands and fathers, and makes SCF female workers less subject to local suspicions of impropriety.

Some non-market related methods of working with borrowers have been tried by credit organizations. For example, integrating education and nutrition information improves the quality of life for women and girls and enhances their productive capability today and into the future. In separate monthly issue meetings, BRAC workers promote the education of all children and good health and nutrition practices. In programmes which are managed separately from its credit programme, BRAC promotes non-formal primary education for boys and girls and maternal and child health. In the 'Sixteen Decision,' GB promotes health messages and discourages the practice of dowry. GB also encourages its centres to save for a school for their children. The SCF credit programme is integrated with its programmes for non-formal primary education for children and maternal child health such that weekly meetings provide integrated messages. In addition, BRAC and SCF have incorporated educating women on their legal rights regarding divorce and abandonment into their programming. These efforts are intended to work in concert with credit programmes to empower women, but programmatic changes may be necessary to enable organizations to be

¹³ BRAC statistics are as of June 1993 and include all RCP and RDP credit and programme staff, 5514 total staff and 570 women staff. GB statistics are as of September 1993, 101 total staff and

43 women; total staff does not include Group Promoters who are local village women.

more effective at doing so. At the time of this study, the Executive Director of BRAC recognized that women need to control their loans in order to have the means to empowerment. Discussions taking place at BRAC, may lead BRAC to change its programme design in order to promote women's control of their loan funds.

The example of SCF demonstrates the power of informal institutionalization. SCF has challenged local institutions that bar women from economic activity, 1) by hiring women and 2) by expecting their borrowers to be involved in their loan-funded activity. The goal of empowering women is adopted by staff as their own goal through evaluation mechanisms, programme design, and training. SCF is organized, and SCF staff evaluated, hierarchically. The guiding goal of the Bangladesh field office is drafted in Westport, Connecticut, USA in consultation with the field office directors. Empowerment of women is then interpreted at the local level in consultation with field staff in the development of specific programme design. In designing and changing programmes, field staff respect the broad objective which they perceive is exogenously determined, but also they believe their opinions and ideas are valued by the Dhaka office. Training is participatory and frequent. SCF staff interviewed received an average of 10 days training within the past year whereas, GB staff had received an average of one. SCF staff input and the SCF training programme contribute to an organizational culture of promoting women's empowerment.

This study was developed to compare different organizations in a given institutional environment. Because of the environmental effects on borrower life circumstances, comparisons between organizations in differing institutional contexts should proceed judiciously. However, there are implications

of this study for lending organizations and all organizations whose goals are empowerment of women. First, programme designers should be cautioned not to mistake the means, lending to women, for the ends, empowerment of women. Second, in designing programmes to promote women's empowerment, planners should design incentives for workers, borrowers, and husbands that prompt them to choose empowerment of women as their goal.

This is not a straightforward proposition when 'sustainability' is also considered an important goal of development programmes. In the Introduction, I argue that empowerment of borrowers **cannot be presumed**. There is another trend in development that 'sustainability,' also ill-defined and heuristically useful, is a desirable objective of a programme. In credit programmes this has translated into tasks related to high repayment rates, and in the case of GB, profitability. Where workers have incentives to increase repayment rates by any means, women's empowerment will likely be sacrificed. But there **need not** be a trade-off between sustainability and empowerment. There are examples of programmatic features (some of them presented early in this article) that try to do both. In order to do both, an organization must choose to have empowerment as its guiding goal. For those that do, programmatic features should translate that goal into observable tasks and enforceable rules. An example of an observable task is lending decreasing amounts to women whose husbands exclusively use the loan. An enforceable rule is Shakti Foundation's requirement that women be knowledgeable about the market aspects of their enterprise before receiving a loan. If programmes are successful in their designs to change the institutions constraining women, women's equal status could become an informal institution.

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