

# Working Paper No. 50

## Models of Microcredit Delivery and Social Norm

S. R. Osmani

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Institute for Inclusive Finance and Development (InM)

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## Abstract

Models of microcredit delivery have evolved considerably in Bangladesh since their inception in the mid-1970s. An important feature of this evolution is the gradual dilution of the rigorous discipline that the MFIs used to impose on borrowers in order to ensure regular repayment by overcoming the problems of adverse selection and moral hazard. A series of measures were adopted for this purpose – viz. direct pressure by MFI officials as well as indirect measures such as group formation, joint liability, peer pressure, peer support, weekly meetings, weekly repayment, dynamic incentive, and so on. The rigour with which these measures were applied before has considerably weakened over time, resulting in a dilution of the discipline of microfinance. An interesting conundrum of the current scenario is that despite this dilution of discipline, repayment performance remains almost as strong as ever. This paper investigates this conundrum. It uses survey data to solicit the borrowers' opinion about how various disciplinary measures were applied in the past and how these practices have changed over time. Their responses confirm the general perception that the disciplinary measures have indeed become considerably weaker. And yet the repayment performance has remained high as a result of the emergence of a social norm under which people have come to accept that loans are meant to be repaid. This is a complete reversal of the erstwhile perception that loans, especially government loans, didn't have to be repaid by the poor people because eventually such loans would be written off. It can be argued, however, that this metamorphosis of social norm is by no means serendipitous; rather it owes itself to the sustained use of the disciplinary as well as incentive devices employed by the MFIs over the years in order to ensure regular repayment. It is precisely because of the sustained use of these devices over many years that poor people have gradually formed the habit of regular repayment, and when a sufficiently large number of people got into this habit, the social norm of non-repayment was quickly replaced by the norm of repayment. Once the new norm has emerged, most of the disciplinary devices are becoming increasingly redundant, having served their historical purpose.



# Models of Microcredit Delivery and Social Norm

S. R. Osmani<sup>a</sup>

## I. Introduction

Models of microcredit delivery have evolved considerably in Bangladesh since their inception in the mid-1970s. The way the MFIs interact with the borrowers and the terms and conditions under which they offer loan have evolved through a process of learning by doing. This evolution has at least two dimensions. First, while there was one predominant model - the so-called Grameen model - at the very beginning, there now exists a plethora of models, with varying degrees of resemblance to the original Grameen model. Second, even the Grameen model itself has not remained unchanged - it too has evolved significantly. An important feature of this two-pronged evolution is the gradual dilution of the rigorous discipline that the MFIs used to impose on borrowers through various means. But despite this dilution the performance of the MFI sector has not suffered - in particular, the high rate of repayment has been sustained on the whole. This leads to an important question: was the earlier regime of rigorous discipline unnecessary? And if it was necessary, how is it that repayment rates have not suffered despite the dilution of the erstwhile rigour? The present paper tries to address these question.

An enquiry into these questions has to start with the understanding of why strict discipline was deemed necessary in the early days. Microcredit, as is well-known, had emerged to fill a vacuum in the credit market - to find a sustainable means of lending to the poor who were considered unbankable by the formal credit market. There were in fact good reasons why the formal sector banks took that view. Credit market is characterised by a high degree of informational asymmetry - borrowers know much more about their own credit-worthiness than the lenders can ever hope to find out in a cost-effective way. Recent advances in economic theory have shown that two of the common consequences of such informational asymmetry are adverse selection and moral hazard. In the context of credit market, adverse selection means that banks could end up mainly with borrowers who are not really credit-worthy. Moral hazard on the other hand implies that once loans are taken borrowers may behave in ways that may enhance their own expected benefits but at the cost of the banks' profitability. Banks try to combat these inherent problems of the credit market in multiple ways. Two of the most important measures they take for this purpose are (a) a thorough evaluation of loan proposals and (b) asking for collaterals that banks can seize from the borrowers in case of default. Neither of the two measures is feasible, however, in the case of poor borrowers: the small amount of loans they would normally take will render standard forms of loan appraisal cost-ineffective, and they have hardly any collateral to offer. Unsurprisingly, the poor were considered unbankable by the formal banks.

When microcredit institutions emerged to offer credit to the poor, they too had to confront the reality of information asymmetry and the consequent problems of adverse selection and moral

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hazard. They too had to accept the fact that undertaking rigorous loan appraisal and requiring collateral were not feasible means of avoiding these problems while lending to the poor. One way or the other, however, these problems had to be avoided if lending to the poor had to be a sustainable proposition. The genius of microcredit, as a form of credit delivery, is that it managed to discover innovative ways of solving the age-old problem of information asymmetry, thereby making it possible to lend to the poor in a sustainable manner. The terms and conditions that the MFIs imposed were part and parcel of that solution.

One of the most common conditions was that borrowers were required to form small groups before applying for loan, with the condition that while each member could take loan individually and could use it for his/her own purpose, a system of group liability would work in the sense that if any one member defaulted others would be denied loan. This system of group liability served to address the problem of information asymmetry in at least two ways. First, since villagers living close together would know each other pretty well they would be able to identify less credit-worthy individuals at little or no cost and would deliberately exclude them at the stage of group formation in order to ensure their own eligibility for loans, thus averting the problem of adverse selection. Second, once loans are taken they would be able and willing to exert peer pressure on each other so that no one engages in behaviour that involves moral hazard.

Another condition was that borrowers must attend weekly meetings in which loan officers will collect loans in a publicly transparent manner. Anyone failing to repay loans would then have to endure the ignominy of being identified as a defaulter in a public forum. The prospect of such ignominy was expected to deter both adverse selection and moral hazard.

Yet another condition that was rigidly applied for a long time was the system of regular weekly repayment. Whatever the nature of the project for which credit was taken, and whatever the nature of income flow from these projects, the borrowers were obliged to come up with their instalment on a specified day every week. The idea was that the discipline of weekly repayment would compel the borrowers to avoid moral hazard type of behaviour that could result in misuse of loan and hence in the failure to repay.

These, and other measures of discipline, together constituted a model of loan delivery that successfully dealt with the problem of asymmetric information even without the support of rigorous loan appraisal and tangible collateral. The success of the model was evident from the fact that the poor borrowers of MFIs maintained an impressively high record of repayment year after year even as the reach of MFIs expanded rapidly; clearly, the twin spectres of adverse selection and moral hazard were kept largely at bay.

Over time, however, most of the original conditions have been relaxed to varying degrees. Most MFIs are increasingly moving away from the idea of group liability, and that includes the Grameen Bank itself, which first implemented the idea in a systematic manner. Individual loans, based on individual liability, are becoming increasingly common. The requirement of group meetings in which loans are repaid in public has also been dispensed with in many cases. Even the discipline of weekly repayment is giving way to more flexible repayment schedules.

And yet, the system of microcredit has not collapsed; on the contrary, its expansion continues unabated without any significant decline in repayment rates. The question that naturally arises is: what is keeping the spectres of adverse selection and moral hazard at bay now that the very institutions that were supposed to keep them at bay are being dismantled one by one? A hypothesis that is being advanced to answer this question involves the idea of changing social norm. The idea is that as a result of many years of strict discipline, the notion that loans must be repaid has been internalised by the people of rural Bangladesh - repayment of loans has become the social norm.<sup>1</sup>

There was a time, long before microcredit came to the stage, when loans were disbursed to the poor mainly by government agencies under various schemes, and more often than not those loans were written off for political reasons. Decades of this experience of loan write-offs had created the common perception that loans didn't have to be repaid - non-repayment had become the social norm. Since almost everybody subscribed to this view, there was no social stigma associated with loan default. In this environment, anyone trying to deliver credit to the poor had to recognise the danger of adverse selection and moral hazard, and had to find ways of dealing with them. That is why, in the early days of microcredit, MFIs had to combat the pernicious effect of the existing culture of default by imposing various kinds of conditions described above. Once the discipline of regular repayment was inculcated by the majority of borrowers, however, the old social norm of wilful default was gradually replaced by a new social norm in which default came to be associated with social stigma in a way that was never true in our society before. In this new social environment, MFIs no longer had to stick to the early regime of rigorous discipline in order to ensure loan repayment, and they didn't want to either because strict discipline had the unintended effect of restricting the expansion of microcredit. Unshackled from the rigours of the early model, MFIs could now experiment with various methods of attracting new borrowers by relaxing the old rules one by one. Thus, the hypothesis is that the observed evolution of the models of microcredit delivery has been underpinned by a momentous shift in the social norm regarding attitude towards loan default.

This is still a hypothesis, of course, but, if true, it could have far-reaching implications - for example, for the modes of regulating the microcredit sector because a regulatory regime that is appropriate for a society where borrowers would naturally tend to default unless either forced or induced to behave differently must be different from one that rests on the premise that non-default is the norm. The hypothesis, therefore, needs to be tested. And Bangladesh happens to be the only country in the world where it can be tested at the moment as no other country has as long a history of microcredit and as much diversity in the mode of its delivery as does Bangladesh.

The hypothesis is tested in this paper primarily with the help of survey data supplemented by discussions with MFIs and other practitioners associated with microcredit. Data from two surveys have been used. First, we drew upon the second round survey of the Poverty Dynamics

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<sup>1</sup> The author is indebted to Wahiduddin Mahmud for suggesting this idea in course of their collaborative work on microfinance. He is also grateful to Mr. Fazlul Kader of PKSF, Dhaka, for sharing his deep insights into the microcredit sector of Bangladesh through many hours of lively conversation.



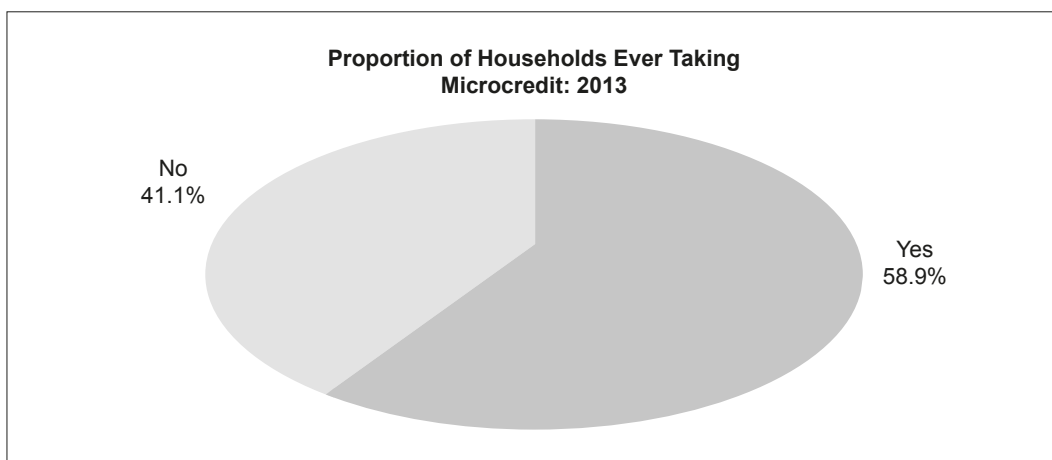
project of the Institute of Microfinance. This survey was carried out in 2013 and covers about 6300 households drawn from all over rural Bangladesh through a stratified random sampling procedure. The set of borrowers found in this survey constitutes what we call the larger sample in the present study. Second, we have taken a sub-sample of 900 households from the larger sample, again by using a stratified random sampling procedure, and re-surveyed this subset in 2014 to gather more in-depth information about their experience of and opinion about the microcredit delivery system in Bangladesh. This survey was carried out in 2015 and is referred to as the smaller sample in this paper.

The rest of the paper is organised as follows. In section II, we offer a brief overview of the salient features of the microcredit delivery models in Bangladesh. Section III examines the manner in which many of these features have been evolving over time. Section IV tries to explain the conundrum that repayment rates have remained exceedingly high in Bangladesh despite the relaxation of many of the disciplinary devices. Finally, section V makes some concluding observations.

## II. Salient Features of the Current Microcredit Delivery System

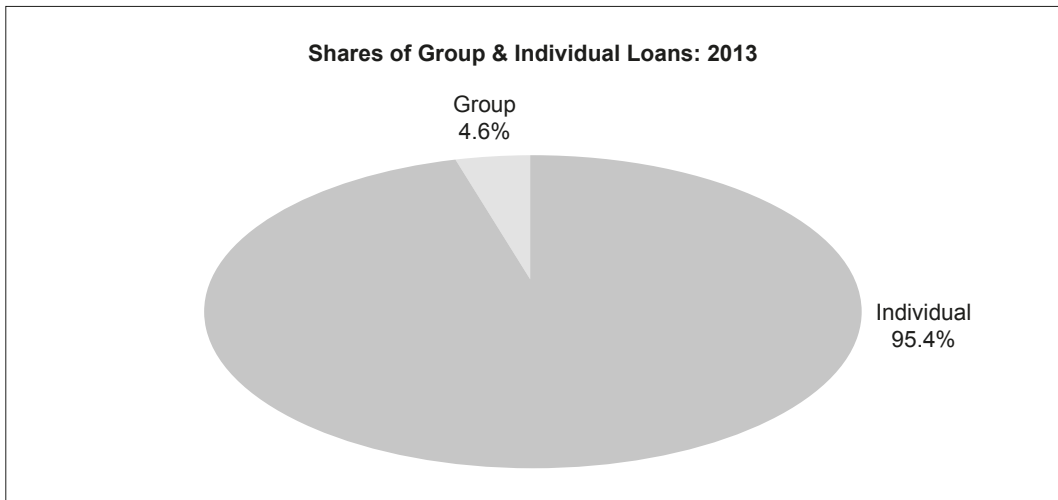
As of the year 2013 as many as 60 per cent of households in rural Bangladesh had taken microcredit at some stage in their lives (Figure 1). This shows the extent to which microcredit has spread in rural Bangladesh – far greater than anywhere else in the world. For many years since the inception of microcredit, the requirement that borrowers should form groups even as they take loans on individual account was ubiquitous. Things have been changing more recently, as MFIs are increasingly offering individual loans, without imposing the requirement of being member of a group.<sup>2</sup> Nonetheless, group-based loan still remains the dominant type, accounting for 95 per cent of all loans offered (Figure 2).

**Figure 1**



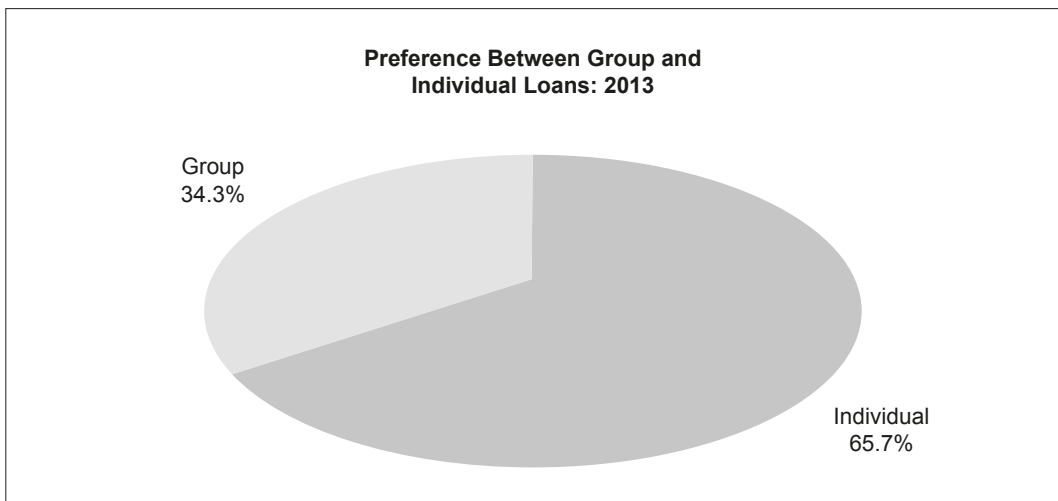
<sup>2</sup> In most cases, however, MFIs still require the individual borrowers to attend weekly meetings and repay their loans there along with group borrowers, at least for a period.

Figure 2



The demand for individual loans is rising, though, and at present exceeds the supply by a wide margin. When asked which form of loan they would prefer to take, the majority of borrowers still expressed a preference for group loan (66 per cent), but nearly a third (34 per cent) preferred to have individual loan, which is far greater than actual supply (5 per cent) (Figure 3).

Figure 2



Investigations into the reasons for preferring one type of loan or the other revealed certain interesting facts. In much of the theoretical literature on microcredit delivery models, the feature of group-based loans that is emphasized the most is the potential role of 'peer pressure' in avoiding the problem of moral hazard that inevitably arises with collateral-free loans (e.g., Stiglitz 1990). Another strand of the literature emphasizes the role of 'peer support' – the idea that group members would help each other out in bad times so that all can maintain a good

repayment record (Rashid and Townsend 1992). Our enquiry shows that while borrowers who prefer group loans do appreciate the importance of peer pressure and peer support to some extent, these are not the main reasons why they prefer it (Table 1). Only about 17 per cent of them mentioned peer pressure and 16 per cent mentioned peer support as the main reason for their preference for group loans. By contrast as many as 36 per cent of them claimed that the spirit of collective action that is imbibed by the practice of group loans is the main reason for their preference. Another 31 per cent mentioned that the feature they find most attractive is the exchange of knowledge and information that is made possible by the requirement to attend regular meetings. Thus, the social consequences of group-based lending rather than the economic consequences of peer pressure and peer support, emphasized so much in the theoretical literature, that seem to be the main attractive feature of this system from the perspective of borrowers themselves.

**Table 1**  
**Reasons for Preferring Group-Based Loan**

<b>Reasons for preference</b>	<b>Percent</b>	<b>Cumulative</b>
Peer pressure is helpful for repayment	17.0	17.0
Peer support is helpful for repayment	16.1	33.0
Regular meetings socially helpful	31.3	64.3
Collective activity socially helpful	35.6	99.9
Others	0.1	100.0

As for the one-third of borrowers who expressed a preference for individual loan, the reasons they gave for their preference are also interesting. A common presumption is that individual loans go hand in hand with large loans. The idea is that there are potential borrowers who want to take loans that are considerably bigger than what is typically available under group loans. Since all group members may not want to take large loans, as they might find it difficult to manage them, the only way open to the MFIs to satisfy the need for large loans is to break out of the old mode of group-based lending and offer purely individual loans. Our evidence shows that while there is some basis for this presumption, this is not the main reason behind the preference for individual loan (Table 2).

**Table 2**  
**Reasons for Preferring Individual Loan**

<b>Reasons for preference</b>	<b>Percent</b>	<b>Cumulative</b>
Don't like joint liability in group loan	35.6	35.6
Afraid of moral hazard in group loan	8.6	44.2
Open group meeting degrading	33.6	77.7
Need bigger loan	21.8	99.5
Others	0.5	100.0

Some 22 per cent of those who expressed a preference for individual loans did cite the need for large loan as the main reason. But the vast majority of them pointed to other features of the group lending system that they find unacceptable and cited them as the main reason for their preference. Thus, as many as 36 per cent of them mentioned that they are put off by one aspect of the joint liability feature of group-based lending – i.e., the fact that once a group member defaults or threatens to default other group members are put under pressure to bring the recalcitrant member into line. Another 34 per cent find the requirement to attend regular meetings and to repay loans in open meetings along with others an unacceptable encroachment on their privacy and dignity. Some others (9 per cent) are concerned at the moral hazard problem that is created by the joint liability feature of group-based lending – viz. the possibility that some group members may be tempted to default knowing that other members would feel obliged to help them out.

It has been well understood for some time that group-based lending has both its advantages and disadvantages. For example, the theoretical literature has been fully cognizant of the fact that in trying to solve one kind of moral hazard problem (collateral-free loans may not be repaid in the presence of limited liability) group-based lending may engender another kind of moral hazard (a group member may try to free ride on other members hoping that she would be bailed out by others), and many a complex model has been built to reflect this tension between the two kinds of moral hazard<sup>3</sup>. Our evidence shows that some borrowers are conscious of this tension too and would like to get out of the group-lending system for that reason, but they account for just 9 per cent of borrowers who prefer individual loans. The majority of them want individual loans not mainly because of the moral hazard problem ensuing from the potential to free ride, as emphasized in the theoretical literature, nor so much in response to the need for larger loans, as highlighted in popular discussion, but because of a couple of other features of group-based lending. First, they dislike the hassle they have to endure whenever a fellow group member tends to default – regardless of whether the default occurs for moral hazard reasons or for genuine reasons. Second, they don't like the invasion of privacy that is associated with group meetings. Once again, as in the case of preference for group lending, economics is not prime consideration for the majority of those who prefer individual loans.

Along with group-based lending, the system of weekly instalment payment has also been a long-standing feature of the microcredit delivery models in Bangladesh. This too has been changing, with instalment of longer duration becoming increasingly common, although the weekly system still remains the predominant form. As many as 92 per cent of borrowers were still making weekly repayments as of 2013, with monthly instalment coming a distant second at just 5 per cent, followed by one-time repayment at about 2 per cent (Table 3). There is evidence, however, that the demand for monthly instalment, in particular, is growing quite rapidly. While the majority of borrowers still prefer weekly instalment (60 per cent), some 34 per cent would like to opt for monthly instalment if they had the opportunity to do so (Table 3). Thus, as in the case of individual lending, demand for loan products with monthly repayment far exceeds the current supply.

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<sup>3</sup> See the discussion in Osmani and Mahmud (2015a).

**Table 3**  
**Distribution of Instalments Types: Actual and Preferred (percent)**

<b>Instalment Types</b>	<b>Actual</b>	<b>Preferred</b>
Weekly	91.9	59.9
Monthly	5.1	34.1
One-time	1.9	2.1
Annual	0.3	1.3
Fortnightly	0.2	1.3
Others	0.6	1.4

It is interesting to examine the reasons behind the differential preference for alternative instalment systems. Those who prefer the weekly system do so for two main reasons. The most important reason has to do with the well-known problem of temptation that makes it difficult for poor people to save (Banarjee and Mullainathan 2010). Of those who prefer the weekly system, 72 per cent cite the problem of temptation – namely, that they would find it hard to save in small amounts over a period of time if the instalment period were longer. Most of the rest – some 26 per cent – feel that the weekly system suits them fine since they have a regular daily or weekly flow of income to match the demand for weekly repayment (Table 4).

**Table 4**  
**Reasons for Preferring Weekly Instalments**

<b>Reasons for preference</b>	<b>Percent</b>	<b>Cumulative</b>
Too tempting to hold money for long	72.3	72.3
Have regular daily/weekly income	26.4	98.8
Others	1.2	100.0

Looking at the other side, i.e. those who do not like the weekly repayment system, we find that there are a variety of reasons – both economic and non-economic, but the latter dominates (Table 5). As many as 58 per cent claim that the main reason they don't like the weekly system is the sheer psychological pain of trying to put together a pot of money to give away every week. No sooner than one instalment has been paid, they have to start thinking about the next, and then the next; the psychological stress of this continuous pressure is unbearable for many. The next most important reason (24 per cent) is the absence of a regular flow of income to match the demand for weekly repayment.

**Table 5**  
**Reasons for Preferring Monthly Instalments**

<b>Reasons for preference</b>	<b>Percent</b>	<b>Cumulative</b>
Lack of regular daily/weekly income	23.6	23.6
Lack of capacity to repay	14.1	37.6
Too painful to arrange money every week	57.8	95.5
Can't attend regular meetings	3.9	99.4
Others	0.6	100.0

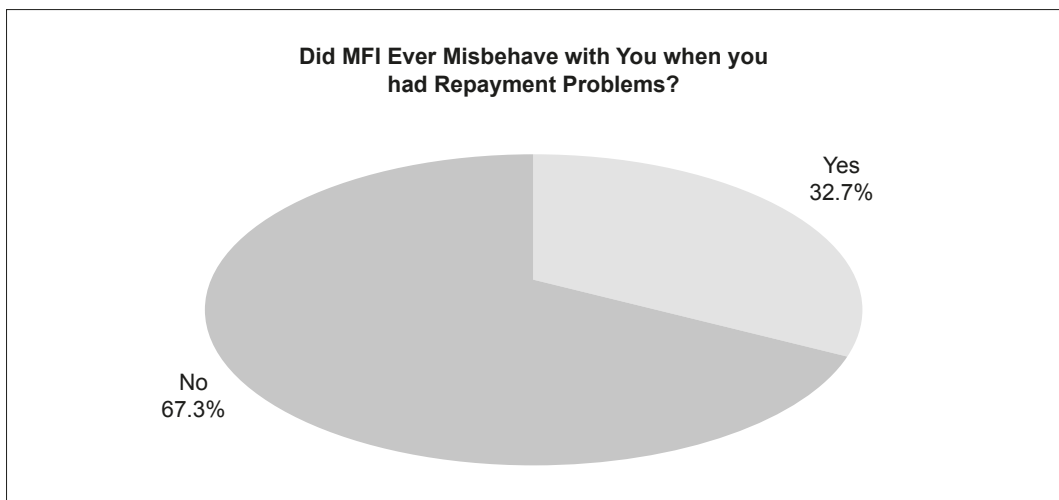
Another feature of the microcredit delivery system that is worth paying attention to is the pressure exerted by the MFIs to ensure regular repayment. In the theoretical models of microcredit delivery, MFIs play a singularly benign role. All they have to do is to oversee the formation of groups by potential borrowers. Through the screening process at the stage of group formation and by applying peer pressure and peer support after the group has been formed, the borrowers themselves are supposed to ensure that the potential of default is all but eliminated. As a result, in these models, MFIs can afford to adopt a hands-off policy.

The practitioners of microcredit know, however, that this is far from the reality. In practice, MFIs do play a more active role, using both the stick and the carrot. For example, instead of relying solely on peer pressure and peer support, they often apply direct pressure on the potential defaulter. Moreover, instead of hoping that peer pressure and peer support will automatically come into play, they often instigate, hassle and pressurize other group members to bring the offending member into line. As we shall discuss later, the behaviour of MFIs has been changing; in particular, these days they use less stick and more carrot – such as allowing potential defaulters to make deferred payments. But one way or the other, the pro-active role played by the MFIs cannot be underestimated. We asked the borrowers whether the MFIs misbehaved with them when they failed to pay some instalment; and about a third of them answered in the positive (Figure 4). We also asked them whether the MFIs allowed them deferred payments; nearly two-thirds of them said they did (Figure 5).

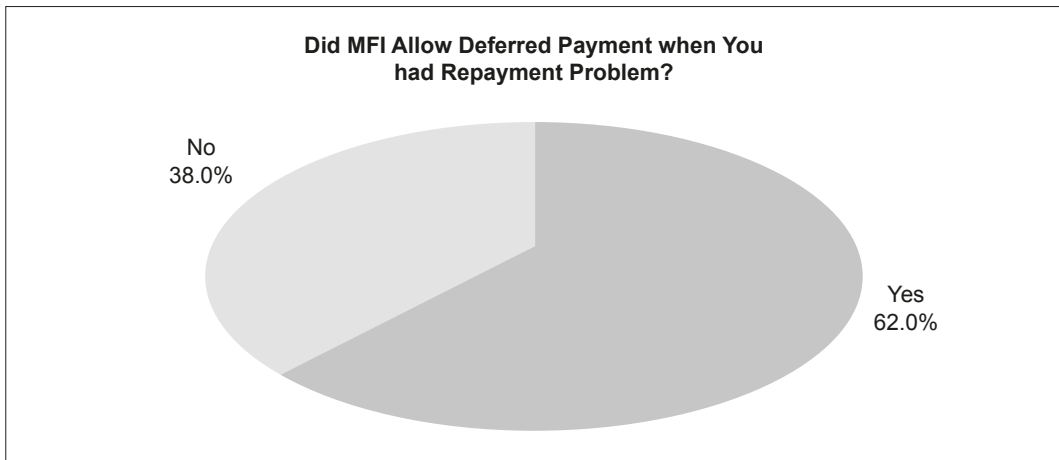
### III. Evolution of Microcredit Delivery Mechanisms

In this section, we examine in details the mechanisms through which microcredit delivery systems have tried to ensure good repayment performance and how the prevalence of these mechanisms are changing over time.

Figure 4



**Figure 5**



### Group cohesion

If the group lending system is to work in the way it is supposed to – by enabling borrowers to avoid adverse selection through screening at the stage of group formation and to avoid moral hazard through peer pressure and peer support once the group is formed – the composition of groups assumes great significance. If the group consists of a motley group of individuals, who have very little prior social interaction with each other, neither the screening process nor the practice of peer pressure and peer support is likely to be very effective. Some studies of microcredit in sparsely populated rural Africa have found that groups are often formed among people who are mostly strangers to begin with, but over time they become closer, thereby making group cohesion a consequence rather than a pre-condition of group lending.<sup>4</sup> We expect things to be somewhat different in densely populated rural Bangladesh, where social networks are likely to be much more extensive; and hence it should be a lot easier to form groups with people from the same network.

We examined this matter by asking our sample households (from the smaller sample), who took group-based microcredit, about their relationship and interactions with their group members. In this context, it should be borne in mind that broadly two kinds of groups operate in the microcredit sector of Bangladesh. Many MFIs, most notably the Grameen Bank, have a two-tier system. In the first instance, borrowers are asked to form small groups (typically of five people), which are meant to be the main sphere of interaction among the borrowers; and in the second tier these groups are coalesced into a larger body (variously called as Kendra, or *Samity*, etc.) which provides scope for another layer of interaction among a larger number of people. For other MFIs, the larger body of *Samity* is all there is – often consisting of 20-40 borrowers, and there is no smaller group. For the present purposes, we designate these two modes as ‘group’ and ‘*samity*’ respectively. We tried to gauge the level of social cohesion by making a distinction

<sup>4</sup> See the evidence cited in Osmani and Mahmud (2015b).

between these two modes since the degree of cohesion is likely to differ between them for obvious reasons.

In Tables 6-8, we present some indicators of social cohesion for all members of a collective, and then separately for 'group' and 'samity' respectively. These indicators are: (a) relationship of other members with our sample households, (b) how well our sample households knew their peers, (c) how much they trusted their peers, and (d) how deeply they socially interacted with each other – both at the time of group formation and at present. By a number of criteria, the degree of cohesion seems to be quite high. Looking first at the collectives as a whole, nearly 80 per cent of members are either neighbours or relatives of our sample households; the sample households knew 76 per cent of their peers either very well or reasonably well before the groups/samitys were formed and they trusted 72 per cent of the peers (Tables 6 and 7). However, when it actually comes to social interaction, the picture is somewhat mixed. The sample households claimed to interact socially with only half of the peers before the collective was formed; just over a third financially helped each other in times of distress, and about a half helped each other out in other ways. Thus the collectives that were formed at the beginning of the process of lending seem to have been sufficiently well-knit in terms of the peers' knowledge and information about each other, but much less so in terms of actual social interaction (Table 8).

Two other points are worthy of note. First, both in terms of information and social interaction, the smaller 'groups' are much more cohesive than the larger 'samitys', as one would expect. Secondly, the level of interaction seems to be higher at present than what it was at the time the collective was formed. It would appear that the very act of borrowing through groups/samitys serves to increase the degree of social interaction among the borrowers.

**Table 6**  
**Relationship with Members of Group/Samity (percent)**

Relationship	All	Group	Samity
Close relative	13.9	31.5	11.6
Colleagues at work	1.7	1.3	1.7
Neighbours	54.5	50.9	55.0
Same village resident	17.7	4.1	19.4
Another village resident	1.4	0.1	1.6
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

**Table 7**  
**How Well the Member Knows Other Members of Group/Samity (percent)**

How well	All	Group	Samity
Very well	53.5	74.2	50.8
Reasonably well	23.2	15.8	24.1
Not very well	11.8	5.1	12.6
Not at all	11.7	4.9	12.5
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>



## Joint liability

The idea of joint liability has been inextricably linked with the idea of microcredit ever since the pioneering theoretical work of Stiglitz (1990) and Varian (1990). In their work, as in much of the theoretical work that has since been done, joint liability is modeled as a practice in which the peers are required to pay up in place of the defaulting borrower. In practice, however, joint liability in this form has rarely existed in Bangladesh. Officially, peers were never obliged to pay up on behalf of the defaulters. In practice, however, MFIs might have put informal pressure on the peer to collect money from the prospective defaulter and in the extreme case to pay up from their own funds. A more common practice was that the MFIs would deny, or threaten to deny, loans to other members if one of the members were to default. Even this is changing; and increasingly joint liability takes a much looser form in which the MFIs either cajole or coerce the peers to bring the defaulting member into line instead of denying loans to them.

**Table 8**  
**Social Interaction with Members of Group/Samity (percent)**

Indicator	All	Group	Samity
Was she trustworthy?			
Yes	71.9	88.7	69.8
No	28.1	11.3	30.2
Did you mingle with her socially?			
Yes	50.7	68.6	48.5
No	49.3	31.4	51.5
Do you mingle with her socially now?			
Yes	63.0	79.6	60.9
No	37.0	20.4	39.1
Did you help each other financially?			
Yes	37.7	59.2	35.0
No	62.3	40.8	65.0
Do you help each other financially now?			
Yes	53.2	71.5	50.9
No	46.8	28.5	49.1
Did you help each other in other ways?			
Yes	49.3	68.0	46.9
No	50.7	32.0	53.1
Do you help each other in other ways now?			
Yes	63.3	75.3	61.8
No	36.7	24.7	38.3

The changing character of the joint liability system is evident from our findings. We asked the group/*samity* borrowers among our sample households (in the smaller sample) to report on three types of actions by the MFIs that could be interpreted as invoking the joint liability system

when one of their peers either defaulted or were about to default: (a) enforcing joint liability by putting pressure on the peers to obtain the instalment one way or the other, (2) threatening to withhold loans to peers unless default was prevented, and (3) actually cutting off loans to peers in case default happened. For each of these actions, we asked the respondents three questions: (a) in their own experience, how important the practice was when they first entered the microcredit market, (b) how important the practice is at present, and (c) how, in their view, the prevalence of the practice has changed over time. The answers tell an interesting story.

About 41 per cent of the respondents reported that when they first joined the microcredit market, MFIs would frequently put pressure on the peers to ensure that the instalment is paid up one way or the other, and another 31 per cent said that the MFIs would behave in this way fairly regularly (Table 9). However, less than two per cent of the respondents think that the MFIs indulge in this practice frequently at present (although, according to 30 per cent of them, MFIs still do so fairly regularly). In the opinion of about two-thirds of the respondents, the practice has declined in importance over time (Table 10).

**Table 9**  
**Application of Joint Liability Pressure (percent)**

MFI Action	Before	Now
MFI enforces joint liability		
Frequently	41.1	1.6
Fairly regularly	30.7	29.8
Seldom	11.9	30.8
Never	16.3	37.8
MFI threatens other members to cut off loans		
Frequently	51.3	4.1
Fairly regularly	30.7	23.6
Seldom	13.3	38.8
Never	4.8	33.6
MFI cuts off loans to other members		
Frequently	46.9	4.2
Fairly regularly	22.3	7.1
Seldom	14.1	19.1
Never	16.7	69.6

**Table 10**  
**Opinion about Change over Time in Joint Liability Pressure (percent)**

MFI Action	Percent
MFI enforces joint liability	
Increased	2.8
Same as before	32.0
Decreased	65.2
MFI threatens other members to cut off loans	
Increased	2.8
Same as before	21.2
Decreased	76.0
MFI cuts off loans to other members	
Increased	1.4
Same as before	24.4
Decreased	74.2

Similarly, the practice of MFIs threatening to cut off loans to the peers was frequent in the past in the opinion of half the respondents, but only 4 per cent thinks the practice is still frequent (Table 9). According to the opinion of 75 per cent of respondents the prevalence of the practice has declined over time (Table 10). A very similar picture is found about the practice of actually cutting off, not just threatening to cut off, loans to the peers.

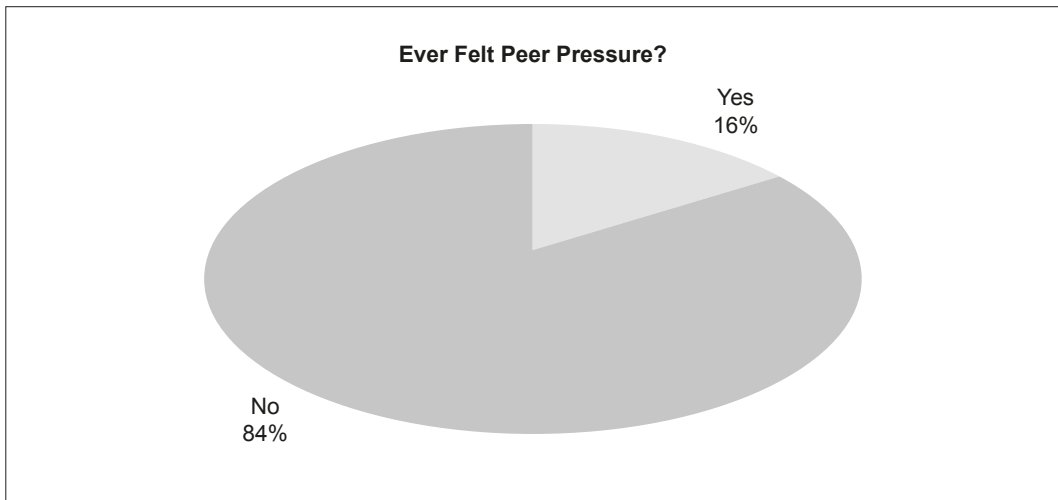
## Peer Pressure

Peer pressure is presumed to be one of the principal mechanisms through which the group lending system is supposed to work. We tried to gather several types of information to gauge the prevalence of this practice and how it might have changed over time.

First, we asked the group borrowers in our main sample of households whether they themselves or any of their group/*samity* members were ever subjected to peer pressure when they had difficulties in paying an instalment. Only 16 per cent of them said that they were, while 23 per cent said other members of their group/*samity* were at one time or another subjected to such pressure (Figures 6 and 7). They were further asked whether it ever so happened that but for the peer pressure they might not have paid the instalment. Only 9 per cent said it did (Figure 8). Thus on the face of it the role of peer pressure in ensuring high repayment rates in the microcredit sector does not seem to be very big. One must acknowledge, however, that the actual influence of peer pressure might be bigger than what these figures suggest since the very possibility of peer pressure being exerted may dissuade some borrowers from indulging in moral hazard in the first place.

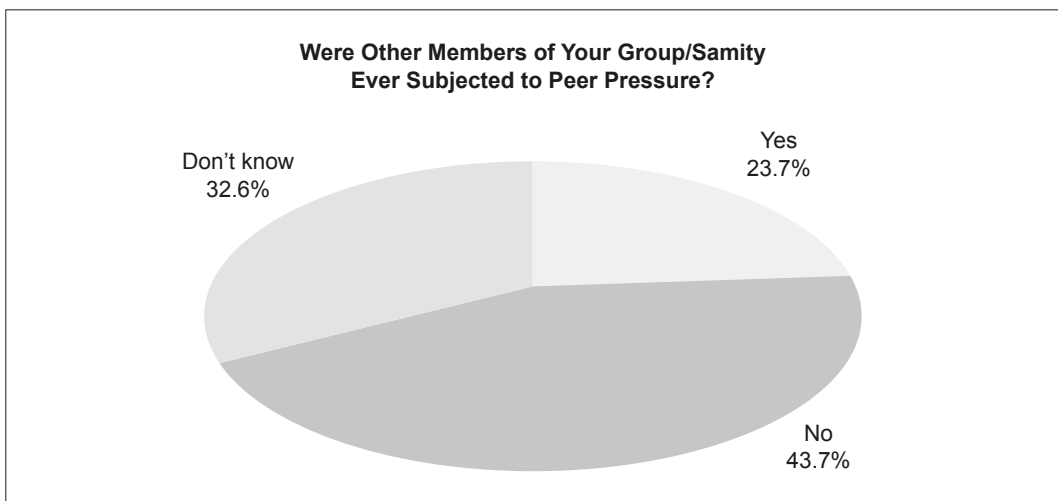
Second, we asked the group borrowers in our smaller sample to recall the history of the incidents in which their group/*samity* members had come close to defaulting and whether any peer pressure was applied on them in those incidents. According to their response, peer

Figure 6

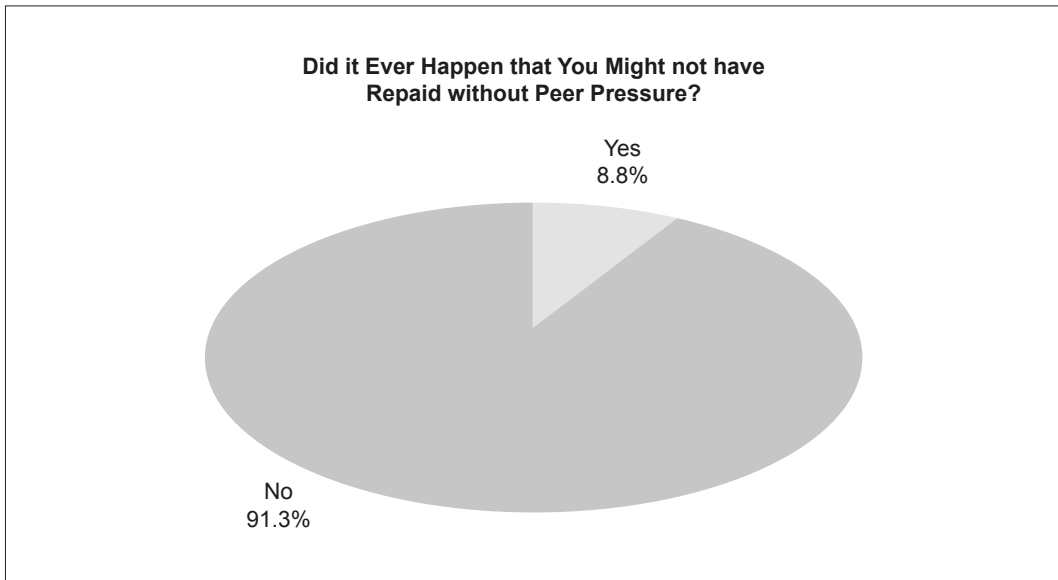


pressure was indeed applied in almost half of the cases (Table 11). It is interesting to observe, however, a contrast between older incidents and more recent incidents. In the case of more recent incidents (those occurring within the last three years), in as many as 70 per cent of the cases the members in trouble were eventually able to repay but in the case of older incidents just over a third of the members were able to do so. This contrast suggests that there might be forces other than peer pressure that might be responsible for more recent success. We shall discuss later what those other forces might be.

Figure 7



**Figure 8**



Third, we asked the respondents in the smaller sample to give their opinion about the importance of peer pressure both in the past and at present and how its prevalence might be changing over time. According to 47 per cent of the respondents, peer pressure played a very important role in the past (when they first joined the microcredit sector); but only about 6 per cent said it was very important now (Table 12). In fact, about a third of the respondents believes it is not important at all and another one-third believes it is only mildly important. Furthermore, two-thirds of the respondents believe the importance of peer pressure has declined over time.

**Table 11**  
**Did Other Members of Group/Samity Face Peer Pressure? (percent)**

	Ever	Recently	Earlier
Yes	48.9	47.0	61.0
No	51.1	53.0	39.1

**Table 12**  
**Intensity of Use of Peer Pressure (percent)**

Intensity	Before	Now
Frequently	46.9	6.4
Fairly regularly	24.9	21.1
Seldom	12.2	36.7
Never	16.0	35.8

There also remains the question of how effective peer pressure is in practice even to the extent that it exists. We do not have a direct measure of effectiveness, but recall that when we asked group borrowers in our larger sample whether they would have failed to pay the instalment in the absence of peer pressure in times of distress only 9 per cent answered that they would have. An indirect idea about the potential power of peer pressure can be obtained by looking at the causes of distress. We asked our smaller sample why their members got into trouble in the first place that called for peer pressure; the answers they gave are reported in Table 13. It is instructive to note that in as many as 40 per cent of cases, repayment problem arose for health-related reasons – either greater need for meeting medical emergencies or loss of income due to illness. When to this we add the cases of loss of income for various other reasons, it turns out that in almost 70 per cent of cases repayment problem arose for reasons beyond the control of the borrowers. It would not be surprising if peer pressure fails to make much headway under such circumstances.

**Table 13**  
**Reasons for Repayment Problem**

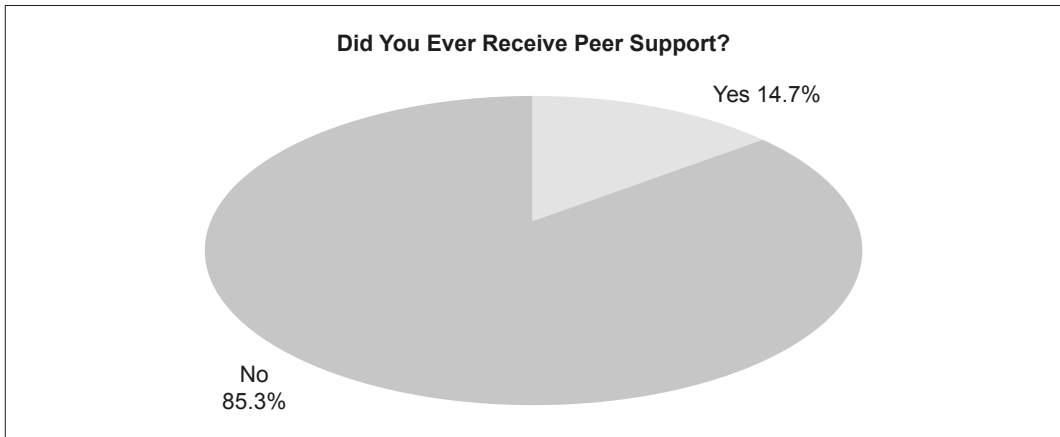
Reasons	Per cent	Cumulative
Lower income due to illness	21.9	21.9
Medical emergency	18.5	40.4
Lower income due to accident	10.0	50.4
Lower income due to calamity	7.5	57.9
Lost assets due to calamity	1.8	59.7
Lost income due to job loss	6.2	65.9
Loss of income due to departure of earner	1.2	67.1
Loss of income due to death in the family	0.9	68.0
Lower remittance income	1.0	69.0
Emergency business needs	2.1	71.2
Compulsion to repay old loans	5.4	76.5
Difficulty in managing overlapping loans	5.9	82.4
Housing repair	4.0	86.4
Wedding expenses	4.7	91.0
Other social ceremonies	1.6	92.6
Others	7.4	100.0

## Peer Support

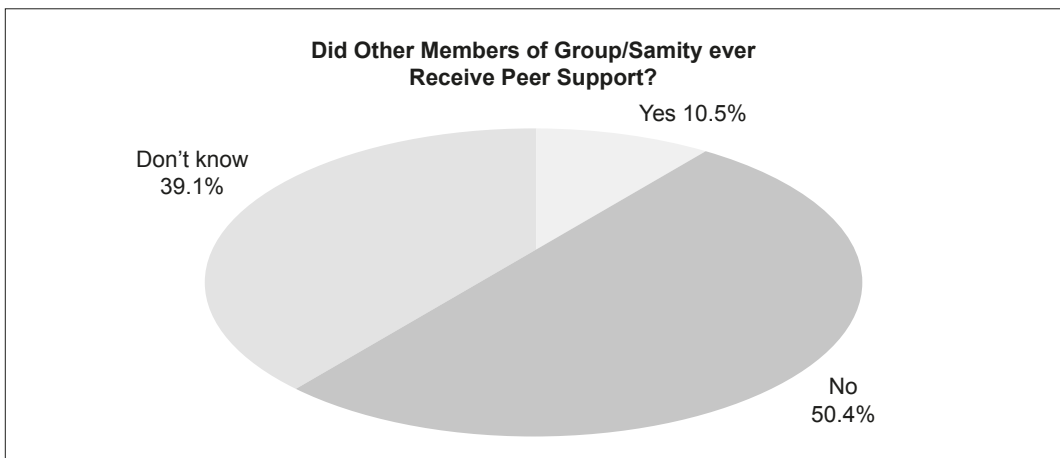
When repayment problem arises mainly due to reasons beyond the borrowers' control, peer support rather than peer pressure has a potentially bigger role to play. But in reality how important is it? Somewhat surprisingly, peer support does not seem to do much better than peer pressure. When group borrowers in the larger sample were asked whether they ever received peer support in times of distress, some 15 per cent said they did (the response was 16 per cent in the case of peer pressure) (Figure 9). And when they were asked whether other members of

their group/*samity* ever received peer support, only 11 per cent answered in the positive (as against 24 per cent in the case of peer pressure) (Figure 10).

**Figure 9**



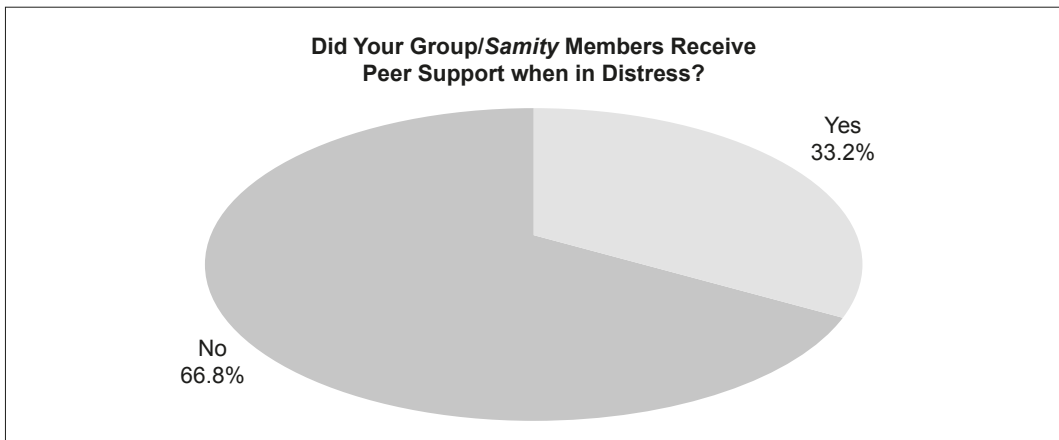
**Figure 10**



The matter was further investigated by asking respondents in the smaller sample to recollect the incidents in which members of their group/*samity* had fallen into repayment problems. They reported that peer support was provided in only about a third of such incidents (as against 47 per cent in the case of peer pressure) (Figure 11).

Finally, we asked the respondents to give their opinion on how important peer support was in practice and how that importance has changed over time. Only about 14 per cent thought peer support was 'very important' in the past when they first joined the microcredit sector; and just 12 per cent of them think it is still very important today (Table 14). As many as 58 per cent think the importance of peer support (or rather the relative lack of it) has remained the same over the years, while a quarter believe its importance has declined further (Figure 12).

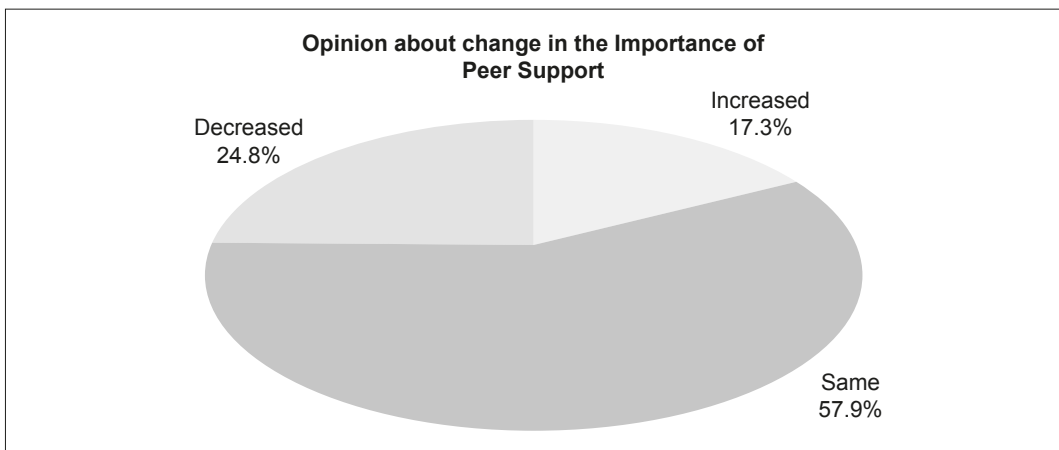
**Figure 11**



**Table 14**  
**Opinion about the Importance of Peer Support (percent)**

Importance	Before	Now
Very important	14.4	12.3
Fairly important	38.1	31.8
Mildly important	18.1	18.1
Not important at all	29.3	37.8

**Figure 12**



#### **IV. The Conundrum**

The preceding discussion shows that none of the mechanisms that are theoretically considered important for ensuring good repayment in the microcredit sector – namely, joint liability, peer pressure and peer support – plays a huge role in Bangladesh. More importantly, their importance has been found to be diminishing over time. And yet the microcredit sector in



Bangladesh has not only been able to maintain its impressive record of repayment but is also flourishing at an unprecedented pace. What is the secret of this success?

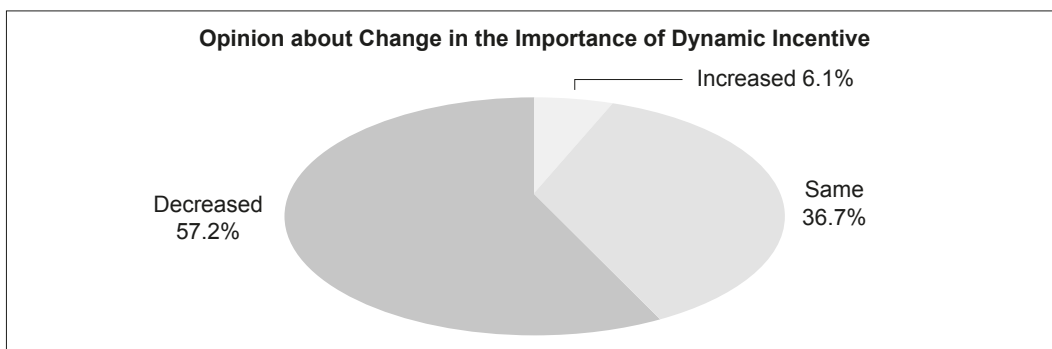
In order to investigate this conundrum, we asked the borrowers (in our smaller sample) what they felt about the importance of several other possible mechanisms that might be playing an important role in keeping the repayment rates high. Some of these mechanisms are marginally discussed in the theoretical literature (for example, dynamic incentive) while others are better known mainly to the practitioners (for example, pro-active roles played by the MFIs themselves). The answers are quite revealing.

(a) *Dynamic incentive*: MFIs often use dynamic incentive to induce borrowers to repay in time – viz., by making it clear that default will result in denial or at least withholding of future loans. If microcredit borrowers are genuinely credit-constrained, as they are presumed to be, they should consider this closing of the door to future loans with serious concern and hence desist from defaulting.<sup>5</sup> Almost 70 per cent of our sample borrowers believe that this incentive mechanism played a very important role in the past, but only about 29 per cent think that it continues to remain very important at present (Table 15). Some 57 per cent believe the importance of this mechanism has declined over the years (Figure 13).

**Table 15**  
**Opinion about the Importance of Dynamic Incentive (percent)**

Importance	Before	Now
Very important	69.3	28.9
Fairly important	19.2	34.9
Mildly important	7.8	27.9
Not important at all	3.7	8.3

**Figure 13**



(b) *MFI Pressure*: There are a number of ways in which MFIs can and do try to maintain good repayment record by putting pressure directly on the defaulting members, instead of waiting for indirect incentive mechanisms to work.

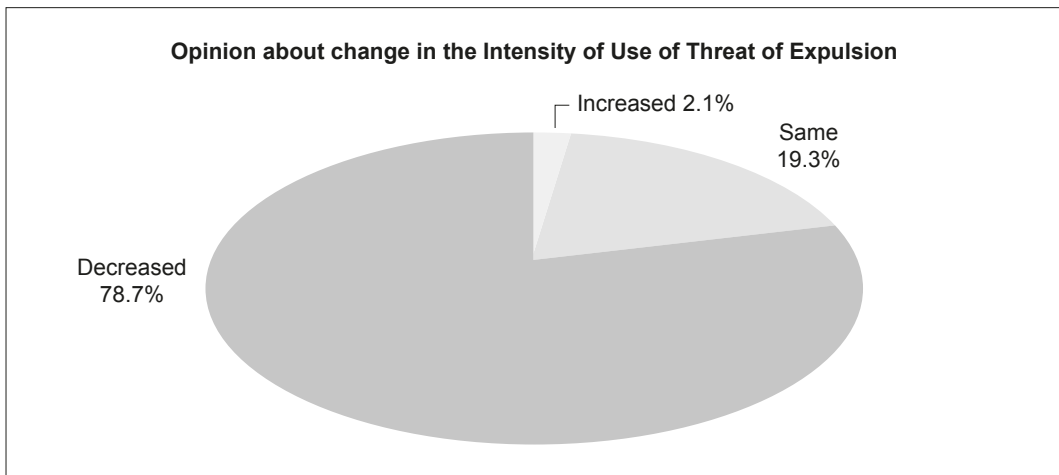
<sup>5</sup> See Chowdhury (2005, 2007) for a theoretical exploration of how this incentive system works.

A particular manifestation of MFI pressure is the threat to expel the offending members from microcredit groups. As many as 55 per cent of our sample households report that MFIs used this weapon frequently in the past, but less than 4 per cent think it is still practised frequently (Table 16). Nearly 79 per cent believe that the use of this threat mechanism has declined over time (Figure 14).

**Table 16**  
**Intensity of Use of Threat of Expulsion (percent)**

Intensity	Before	Now
Frequently	54.5	3.6
Fairly regularly	28.7	31.3
Seldom	8.0	44.9
Never	8.8	20.3

**Figure 14**



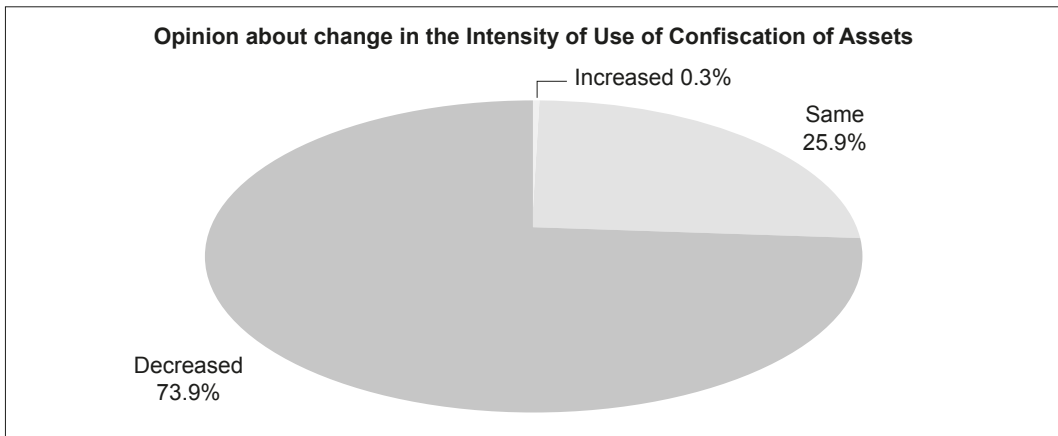
Yet another manifestation of MFI pressure can be found in the stories often told in the popular media that MFIs officials take away whatever meager assets the offending borrowers have, or at least threaten to do so. That there is some truth to these stories is evident from the fact that as many as 44 per cent of our respondents claim that this practice was frequent in the past. But it is important to note that less than 1 per cent still thinks so (Table 17). Around 75 per cent believe that the use of this abominable practice has declined with the passage of time (Figure 15).

Regardless of the precise manifestation of MFI pressure, a common perception is that MFIs deal harshly – or rather misbehave, to put it bluntly – with clients who seem to be wavering over instalment payment. In our sample, some 56 per cent of households believe MFIs used to misbehave with offending members frequently in the past, but only 7 per cent think this is still the case at present (Table 18). Nearly 79 per cent of households feel that the prevalence of misbehaviour by MFI officials has declined over the years (Figure 16).

**Table 17**  
Intensity of Use of Confiscation of Assets (percent)

Intensity	Before	Now
Frequently	43.6	0.5
Fairly regularly	25.8	11.2
Seldom	10.7	25.6
Never	20.0	62.7

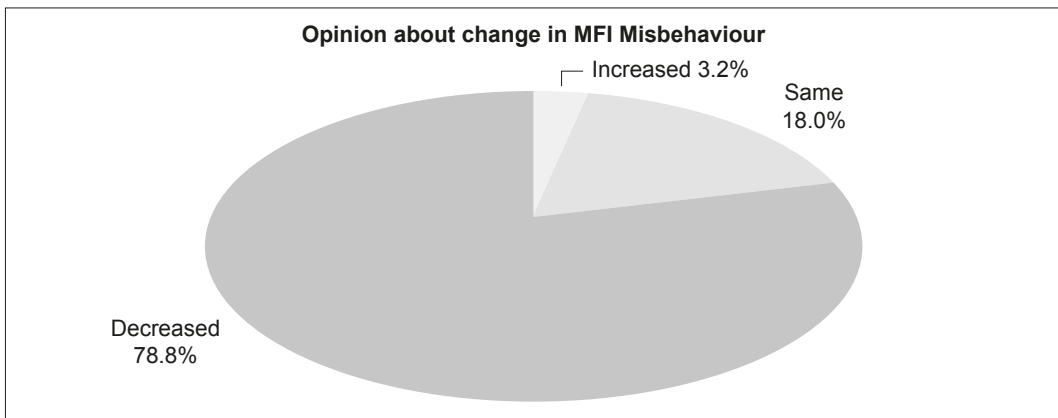
**Figure 15**



**Table 18**  
Intensity of Misbehaviour by MFIs (percent)

Intensity	Before	Now
Frequently	56.1	6.6
Fairly regularly	30.3	33.1
Seldom	9.8	46.9
Never	3.8	13.4

**Figure 16**



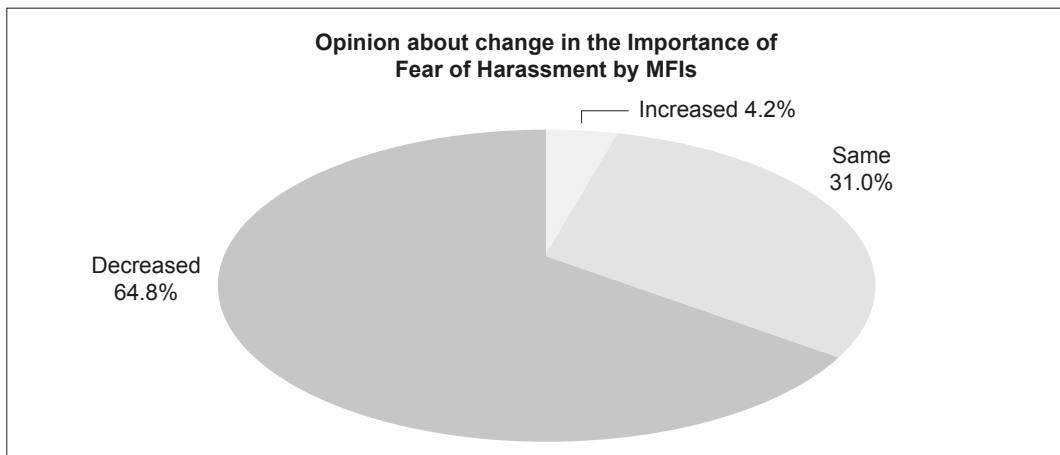
We also asked the respondents whether the fear of harassment by MFIs was a ‘very important’ mechanism behind their success in preventing default and keeping the repayment rate high. Some 66 per cent thought this was indeed so in the past, but only 21 per cent thought it was still a ‘very important’ factor at the present time (Table 19). Just over two-thirds of them reckon the importance of this factor as a contributor to high repayment rates has gone down over time (Figure 17).

**Table 19**  
**Opinion about the Importance of the Fear of Harassment by MFIs (percent)**

Importance	Before	Now
Very important	66.1	20.9
Fairly important	19.1	33.0
Mildly important	9.2	33.1
Not important at all	5.6	13.0

So far we are still far from resolving the conundrum referred to at the beginning of this section. If the role of theoretically celebrated mechanisms such as joint liability, peer pressure and peer support has declined over time, so has the role of less discussed mechanisms such as dynamic incentive and MFI pressure. How has then the microcredit sector been able to maintain exceptionally high rates of loan repayment? The following mechanisms provide a clue.

**Figure 17**

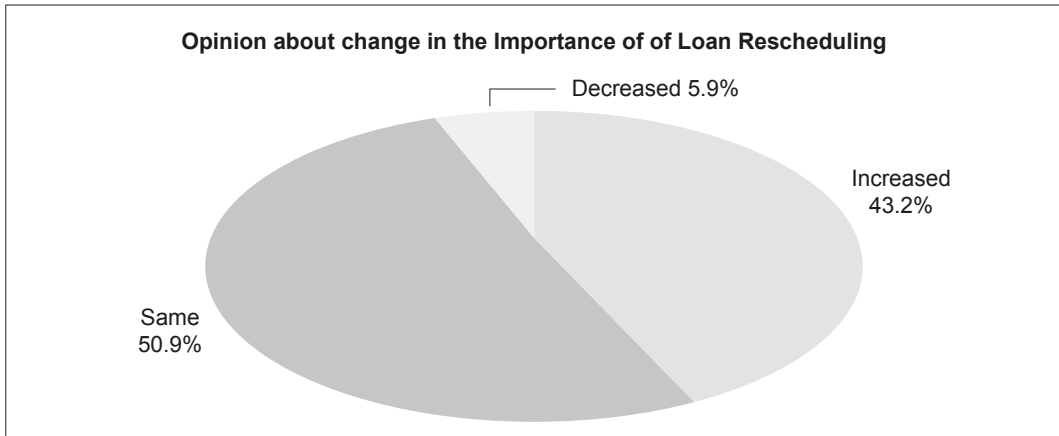


(c) *Loan rescheduling*: Increasingly, MFIs are finding innovative ways of rescheduling loans when they have good reasons to believe that that repayment problem has arisen not due to moral hazard but because of genuine distress. Only 4 per cent of respondents thought that this mechanism was used ‘frequently’ in the past but 24 per cent believe this is so now (Table 20). As many as 43 per cent of them believe that the importance of this mechanism, unlike all other mechanisms discussed above, has increased over time (Figure 18).

**Table 20**  
**Intensity of Use of Loan Rescheduling by MFIs (percent)**

Intensity	Before	Now
Frequently	3.9	23.8
Fairly regularly	18.0	22.3
Seldom	22.3	13.3
Never	55.7	40.6

**Figure 18**

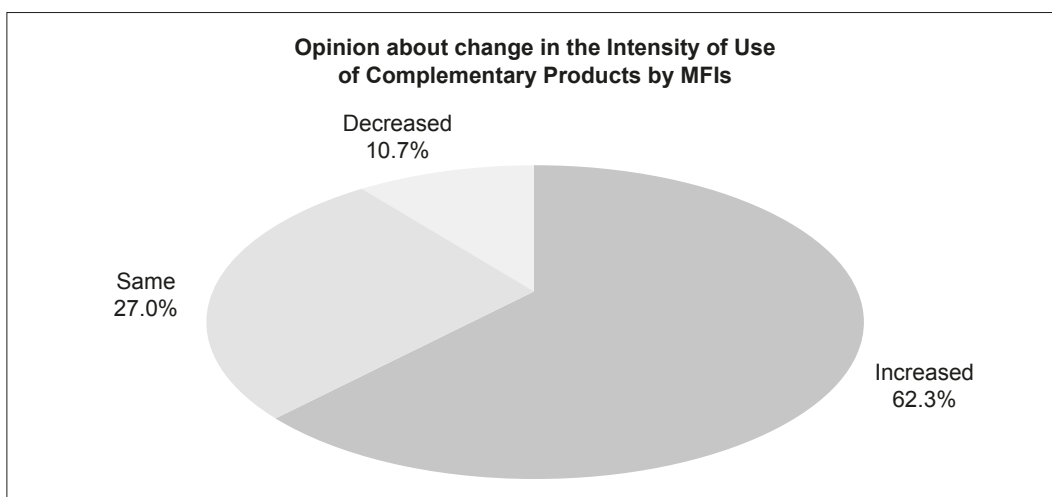


(d) *Complementary financial products*: MFIs are increasingly using complementary financial products such as savings and insurance to help overcome the repayment problems faced by members under distress. Only 8 per cent of the respondents said that this mechanism was used ‘frequently’ in the past, but as many as 42 per cent believe this has turned out to be so at present (Table 21). Some 62 per cent reckon that the importance of this mechanism has increased over the years (Figure 19).

**Table 21**  
**Intensity of Use of Complementary Products by MFIs (percent)**

Intensity	Before	Now
Frequently	8.1	42.3
Fairly regularly	42.2	42.1
Seldom	32.0	12.5
Never	17.7	3.1

Figure 19



(e) *Social stigma*: Borrowers increasingly feel that defaulting on loans would entail a social stigma they are unable to bear. The importance of this factor was brought home to us repeatedly by the MFI officials in our discussions with them in the course of our field work. They felt that education is playing an important underlying role here. The sense of stigma is becoming more acute as the society is becoming more educated. Especially as children are going to school in increasingly large numbers, parents feel that their loss of face to their own children (as they in turn lose face to other children in the school) would be unbearable in case they were stigmatized as loan defaulters. The rising importance of social stigma is confirmed by the opinions of our respondents as well. According to 46 per cent of them, social stigma associated with default was 'very important' in the past, whereas 56 per cent think that it is 'very important' today (Table 22).

**Table 22**  
**Opinion about the Importance of Social Stigma in Case of Default (percent)**

Importance	Before	Now
Very important	46.2	56.7
Fairly important	31.4	20.4
Mildly important	18.6	15.3
Not important at all	3.8	7.6

The respondents were also asked whether they felt that the culture of non-default was becoming ever more ingrained in the social psyche – not just with regard to microcredit but with regard to all types of loans. Almost 99 per cent thought that it was. We also asked them whether the practice of microcredit had contributed to this broader cultural change. As many as 78 per cent of them thought that this was indeed the case. We then asked them precisely how microcredit had contributed to this change. Their answers are reported in Table 23.

The highest degree of importance was attached to the role of habit formation; as many as 58

per cent of respondents felt that this was the most important way in which microcredit had contributed towards improving the culture of loan repayment. The second in importance was creating a social psyche in which defaulting had come to be associated with social stigma. Making people able to appreciate the incentive for future loans also played a useful role.

The idea behind habit formation needs further elaboration. For many years, MFIs have employed a variety of mechanisms to ensure regular repayment. As we have seen, the importance of many of these mechanisms has declined over the years. However, the reason they have declined in importance is not that they were not effective but that they had served their purpose – namely, inculcating a habit of repayment among the borrowers. People have to come to accept that loans are meant to be repaid – completely reversing the erstwhile perception that formal sector loans, especially government loans, didn't have to be repaid by the poor people because eventually such loans would be written off. Once the habit of repayment has been formed, the tools needed to ensure repayment – partly through sticks, partly through carrot – were no longer needed, at least no longer to the same extent as before.

**Table 23**  
**Improvement in the Culture of Loan Repayment**

	Per cent	Cumulative
Has loan repayment culture generally improved?		
Yes	98.8	98.8
No	1.2	100.0
Has microcredit contributed to the improvement?		
Yes	78.1	78.1
No	21.9	100.0
If yes, what's the main reason?		
Habit formation induced by microcredit	58.2	58.2
Accentuation of social stigma from default	22.3	80.6
Creating incentive for future loan	19.3	99.9
Others	0.1	100.0

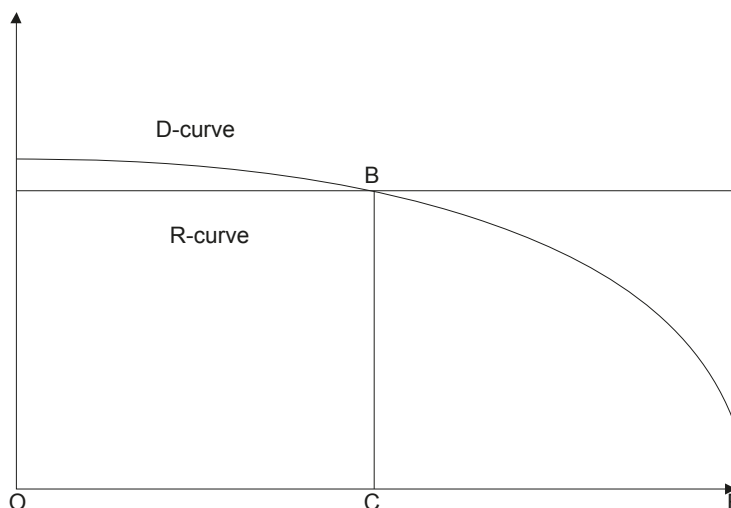
## V. Concluding Observations

Once habit begins to form, it can become self-reinforcing, spreading out to ever larger proportion of borrowers. A synergy between habit formation on the one hand and accentuation of social stigma associated with default on the other can play a powerful role in broadening the reach of the culture of repayment. The way this synergy works can be best explained by drawing upon the theory of how social norms are created.

One way of explicating such a theory is to employ the notion of the frequency-dependent equilibrium, in which one person's expected gain from a certain type of behaviour depends on the percentage of people whom we can expect to behave in the same way. A graphical device due to Schelling (1973) and Andvig (1991) can be used to explain this type of behavioural complementarity. In Figure 20, the horizontal axis measures the proportion of people who are

expected to repay loans. Thus at the origin no one repays and at the end point E everyone repays. There are two categories of people – those who are morally predisposed to repay (R) and those who are predisposed to default (D). The marginal benefit curves for the two categories of people are shown by R and D respectively. For simplicity, we assume that the marginal benefit for a R-type person does not depend on the number of people expected to default; thus the R-curve is horizontal. However, the marginal benefit for the D-type person will depend on the number of potential defaulters because one of the costs of default is social stigma, which will depend on the number of potential defaulters. At the beginning, when very people are expected to repay, the social stigma associated with default would be very low. As more and more people get into the habit of repayment, social stigma from default would increase, and therefore the marginal benefit from default would decline – the D curve will slope downwards. It is also plausible to assume that initially, when social stigma is very low, the marginal benefit from default would be greater than the marginal benefit from repayment. That is, the R curve will start from a lower position than the D curve; this is how the diagram has been drawn.

Figure 19



Given the shapes of the two curves, they will intersect at some point B. To the left of B, since the marginal benefit from default is higher than the marginal benefit from repayment, everyone would tend to default. The opposite is true to the right of B, and everyone will tend to repay. There are thus two possible equilibria – one of them is at the origin, where everyone is a defaulter, and the other one is at the end point E, where everyone repays.<sup>6</sup> Which equilibrium will actually exist depends upon how many people have gotten into the habit of repaying the loan. When very few people have acquired the habit, the all-default equilibrium will tend to prevail. However, as the proportion of habitual repayers passes the critical value C, the all-repayment equilibrium (E) will tend to prevail. This is how the synergy between habit formation and social stigma can organically generate a culture of repayment, in which neither

<sup>6</sup> There is also a third equilibrium – at B, but it is not stable.



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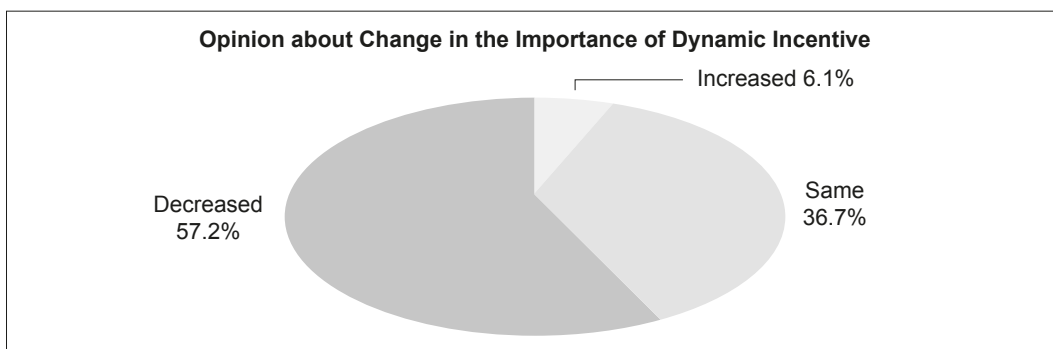
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**Table 15**  
**Opinion about the Importance of Dynamic Incentive (percent)**

Importance	Before	Now
Very important	69.3	28.9
Fairly important	19.2	34.9
Mildly important	7.8	27.9
Not important at all	3.7	8.3

**Figure 13**



(b) *MFI Pressure*: There are a number of ways in which MFIs can and do try to maintain good repayment record by putting pressure directly on the defaulting members, instead of waiting for indirect incentive mechanisms to work.

<sup>5</sup> See Chowdhury (2005, 2007) for a theoretical exploration of how this incentive system works.



sticks nor carrots are needed to ensure regular repayment.

It is arguable that the threshold level C – which may be called the repayment threshold – has been crossed in the Bangladesh microcredit sector. The relatively long history of microcredit in this country and the very large expansion of its reach across the country would together have ensured that enough people have got into the habit of loan repayment so as to cross the threshold. And once the threshold was crossed, MFIs don't have to continue to employ the sticks and carrots they have historically employed in order to ensure regular repayment. People now repay simply because they have internalized the culture of repayment.

And this explains quite a few phenomena discussed in this paper. First, it explains why repayment performance remains exceedingly high in Bangladesh despite the diminishing prevalence of joint liability, peer pressure, peer support and MFI pressure. Secondly, one can see why the prevalence of individual loan has begun to rise despite the fact that it is not subject to the disciplining devices that characterize the group lending system. Once repayment becomes a culturally accepted norm, individual loan becomes no more subject to moral hazard than group loan. In fact, individual loan can then become the preferred option as it avoids the moral hazard that group lending itself generates by creating the scope for free riding. Finally, norm-based behaviour can also explain why it is becoming increasingly possible to replace the weekly instalment system by instalments of longer duration. The whole logic of weekly repayment was that temptation would prevent poor people from accumulating enough funds if larger instalments had to be made less frequently. But once the norm of repayment becomes culturally ingrained, this can help overcome the power of temptation, making it possible to switch over to monthly or even longer instalment periods without jeopardizing the prospects of repayment.

Thus nearly all the features of the evolving pattern of microcredit delivery models that we observe in Bangladesh can be explained by the emergence of a social norm, which says that loans are meant to be repaid. It can be argued that the emergence of the norm is by no means serendipitous; rather it owes itself to the sustained use of the disciplinary as well as incentive devices employed by the MFIs over the years in order to ensure regular loan repayment. Once the norm has emerged, however, most of these devices are becoming increasingly redundant having served their historical purpose.

## References

- Andvig, J. C. (1991). "The Economics of Corruption: A Survey", *Studi Economici*, 43: 57-94.
- Banarjee, A. and Mullainathan, S. (2010). *The Shape of Temptation: Implications for the Economic Lives of the Poor*. Working Paper 15973. National Bureau of Economic Research: Washington, D.C.
- Chowdhury, P.R. (2005). "Group-lending, Sequential Financing, Lender Monitoring and Joint Liability." *Journal of Development Economics*, 77:415:439
- Chowdhury, P. R. (2007). "Group-Lending with Sequential Financing, Contingent Renewal and Social Capital." *Journal of Development Economics*, 48:487-506
- Osmani, S. R. and Mahmud, W. (2015a). *How Does Microcredit Work? A Review of the Theories of Microcredit*. Working Paper no. 35. Institute of Microfinance: Dhaka.
- Osmani, S. R. and Mahmud, W. (2015b). *How Does Microcredit Work? Testing the Theories of Microcredit*. Working Paper no. 36. Institute of Microfinance: Dhaka.
- Rashid, M. and Townsend, R. (1992). *Targeting Credit and Insurance: Efficiency, Mechanism Design and Program Evaluation*. University of Chicago/World Bank Working Paper.
- Schelling, T. (1973). "Hockey Helmets, Concealed Weapons and Daylight Saving: A Study of Binary Choices with Externalities", *Journal of Conflict Resolution*: pp.321-428.
- Stiglitz, J. E. (1990). "Peer Monitoring and Credit Markets", *World Bank Economic Review*, 4(3): 351-366.
- Varian, H. R. (1990). "Monitoring Agents with other Agents", *Journal of Institutional and Theoretical Economics*. 146(1):153-174.

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