Microloans: Risks for Lenders and Borrowers

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1 Introduction to microcredit

In 2006, Muhammad Yunus and Grameen Bank received the Nobel Peace Prize for their work in creating opportunities ”for economic and social development from below”.[4] One of their means to help large populations out of poverty was by using microcredit. Giving poor people, often women, the opportunity to borrow money under the right circumstances allowed for advances in human rights as well as democracy. The borrowed money could be used to create or keep a small business running but also to buy clothes and feed the family.

This is the idea of microcredit; To give the possibility of self-help to the poor. The idea is that every human is an entrepreneur and every human wants to improve his or hers living standards with the options given to them. For instance in Sweden you're granted a loan by the state to uphold living while going through university level education. The student loan gives an option to educate yourself which is an investment in your future. In a similar way, microcredit gives the poor a possibility to invest in their future by creating small businesses. These businesses creates income and if everything works out as planned the borrower can reimburse the loan. Previous named Grameen Bank has a ”method of action” which explains how they work to create ”success stories” [8].

2 The story of Muhammad Yunus

Muhammad Yunus is thought of as one of main creators of microcredit. Together with Grameen Bank, Yunus was awarded the Nobel Peace Prize in 2006 ”for their efforts to create economic and social development from below”. [3][4]

Yunus work towards microcredit started already in the 70's when he was a professor of economics at the University of Chittagong, Bangladesh. After visiting poor households in the area, he saw a chance to help. He started by lending US$27 of his own money to 42 people. The money was needed for raw material in order to keep their businesses going and since they had bad agreements with local traders their business was giving them barely no profit. Soon thereafter, Yunus secured a loan giving him the possibility to lend more money to more people. This was against the banks advice but he proceeded anyways. Just a couple of years after this, in 1983, Yunus founded Grameen Bank, meaning Village Bank. [5] [6]

Yunus claims that poverty is an external system that needs to be removed from our society. Thus, Yunus and Grameen Bank encourage the poor to believe that they can handle money and use it for some kind of business. Yunus believes that every person is an entrepreneur and thus want borrowers to find a way to a stable income for the future. One great success story for Yunus and Grameen Bank is their work in helping beggars. They started encouraging beggars to bring something with them to sell when they went from door to door begging for food, or money for food. By giving the beggars money to invest in something to sell, they could help the people stop asking for money or food, and instead selling goods in order to support themselves and their families. The program started with an idea of helping 1000 beggars but ended up with having 100 000. After five years, 22% of the people in the program had stopped begging completely, whereas many had become personal shoppers for households they visited.

With Grameen Bank, Yunus states that he wanted to do the opposite of what regular banks did. Since regular banks only lend money to wealthy people in cities, he went out to poor people in small villages. Grameen Bank removed the need for collateral and instead used ”solidarity/supportive groups” to ensure repayment. To take this one step further, since conventional banks are owned by wealthy people, Grameen Bank is owned by the poor people and all dividends goes back to the borrowers. The thought of doing everything opposite also applies to gender. Since regular banks often turn to men, Grameen Bank turned to women and is now owned by 97% of women. [7]

In 2011, Yunus resigned from Grameen Bank. He was at the time 71 years old.

3 Why regular banks fail to service the poor

Regular banks fail to service the poor with their business models. The main concern of regular banks are often to make profit of their business and it is hard to do so with the poor whom have very limited funds. Below is a simplified model of the economics behind a loan.

3.1 Loan model for formal institution

This loan model is taken from a lecture in the course ”The challenge of world poverty” which was given at MIT in 2011 [11]. This model gives some explanation why a regular bank fails to reach the poor. To explain the model, a few terms needs to be introduced beforehand

- k = money needed by borrower for investment
- w = own wealth of borrower
- R = 1+r interest of money lent, 5% interest gives $r = 0.05 \rightarrow R = 1.05$
- D = cost of capital, for example interest to depositors
- c = fixed fee of each loan, to check persons credibility and manage loan
- h = fraction of investment capital that it costs to default

For the lender to make money, if everything goes as planned, the equation

$$R(k - w) \geq D(k - w) + c \tag{1}$$

needs to be fulfilled.

When the borrower has been granted a loan there are two possible outcomes, either reimbursing the money after the time period of the loan or defaulting. The lender want the cost of defaulting on purpose to be higher than the cost of reimbursing the loan. This insures that the borrower will reimburse the loan if he is able to. If it is more favorable for the borrower to default on purpose then the lender needs to trust the borrowers moral to reimburse. Therefore the following equation must be fulfilled for the lender to lend money

$$R(k-w) \leq hk. \tag{2}$$

Equations (1) and (2) combined gives

$$D(k-w)+c \leq hk, \tag{3}$$

which means that in the case of a default the borrower should make a bigger loss than the lender.

These conditions gives that the biggest investment capital obtainable by borrowing is

$$k \leq \frac{Dw-c}{D-h}. \tag{4}$$

If the borrower doesn't have enough own capital such that $Dw - c \geq 0$ is fulfilled then a loan is not granted. With more own capital of the borrower a bigger loan can be granted. Equations (1) and (4) combined gives

$$R \geq D + c\frac{D-h}{hw-c}. \tag{5}$$

By this equation, if you have a low amount of investment capital you will pay a higher rate. As previously explained a poor borrower is not able to get large investment capital. Also a poor borrower have less investments to care about which means that it is cheaper for them to default. This gives higher interest rates which themselves gives more defaults, so it is a negative circle since higher interest is needed to handle more defaults and so it carries on.

3.2 Factors possible of change

There are however a few factors that could be changed in this loan model. It is hard to change the cost of capital (D), this is the factor of "goodwill" of the depositors. You can't change the own wealth of the borrower (w) either. However, one could change the fix cost (c) and the cost of running away (hk). Microfinance institutes have figured out a few lending models to make these factors more favorable and give a lower interest. This provides a positive circle when more are able to reimburse their loans because of the lower interest.

4 Lending models

In the following sections different microcredit lending models is explained and discussed. Due to the failure of traditional regular banks to lend money to poor people new innovative lending institutions, so called Micro Finance Institutes (MFI), have been started. They focus on making small, uncollateralized loans, which is impossible for the traditional banks. As stated in the previous section 3, the relatively high cost of screening and the lenders lack of collateral had to be overcome by this new institutions, and they have done it in multiple ways which are described further below [1].

4.1 Group lending

One of the most popular method applied by the MFIs is the group lending model. There are many different versions but the basic idea is that each member of the group is responsible for all the other members loans, if any member fail to repay this will have consequences for all members of the group and the borrowers form the groups themselves. The architecture of this system makes the group members screen themselves, the borrowers don't want any unreliable members of the groups since they are all responsible, and the cost of screening borrowers disappear for the lender. In the same way this somewhat eliminate the need for collateral since the members of the group often are friends and family who care about each other, they don't want to fail or ruin one another. The punishment for failing to repay is often to deny further credit in the future, which many people rely on for their business, home and life. The joint liability of the group members also continue to make impact after the loan is taken, there are incentives for peer monitoring (making sure money is spent the way it was meant) which is made easy because of the way the group is set up. This further reduces the cost for the lender hence ensuring low cost and safe borrowers which create high repayment rates and loan efficiency.[1]

But there are some disadvantages of the joint liability. Such as the risk that if some members of the group realize that one member won't be able to repay the loan and they all will lose the chance of further credit, they have no incentives to repay their loans either, causing a domino effect. Due to the way the system works it can also have fatal consequences for group members who don't repay their loans, i.e. bad reputation, exclusion from society and family, and violence. [1]

Group lending has inspired many other models, such as the model used by Grameen Bank. Here groups of five villagers are allowed to apply for loans two at a time. If the first two loans are replayed, the next two in the group are allowed to apply for loans, before finally the last one.[2]

4.2 Individual lending

By taking individual loans some negative consequences could be avoided, such as the borrowers risk that a group member won't repay his part, loss of privacy or the time/costs needed for group support.[12] But in the same way as the group case; many borrowers care about being able to take further loans which is a great incentive for repayment. Many long term relations between a lender and a borrower makes it possible for the lender to get to know the borrower, some kind of screening, before the borrower get big credits. This advantage is however reduced by the competition between lenders and increased mobility of borrowers since the lender will be able to take a lone elsewhere. And at the same time as the long term relationship have positive impacts; if the relationship have an ending, say one is moving, the borrower have an incentive to default on the last credit.

There are also additional ways to enforce the repayment such as collateral substitutes. Earlier the lack of collateral was discussed but the MFIs have found innovative ways to avoid this. Bank Rakyat Indonesia effectively deploy a method where they accept driver licenses, degree certificates and for the borrowers other valuable documents. You could also imagine using other belongings with high personal value as the last picture of mother's grandmother. Many institutes also use an emergency fund to which borrowers initially have to pay a small amount. The fund covers possible default by the borrowers and help the institutes especially in their first years before they have had the time to build a cash buffer of their own.[1]

5 Problems

Although the positive side of microcredit is easily seen and understood, there are also many problems and back draws about it. We have already discussed some problems, for example the risk of domino effect when using a group lending model. Below, in this section, we present some more substantial problems of microcredit.

5.1 Low education regarding savings and handling of money

A big problem is that with low education in private economy the borrowers may not know how to handle their investments. In many cases the money lent does not go into a income-producing business. The money may go to household expenses, medical treatment and celebration of special events. With a over-saturated market there is a possibility for a borrower to take multiple loans from different lenders creating bigger and bigger debt when they aren't able to reimburse [15].

5.2 Organizations using microcredit wrong

Instead of not-for-profit organizations as intended, more market orientated companies have started to enter the business. Using the term microcredit, but using it wrongfully can lead to serious problems for the borrowers. Microfinance expert Damian von Stauffenburg claims that in order for the organization to be working correctly, they are responsible of finding the right people that are willing to take a loan and use it to make a profit.[16] There is also the risk of employees in the organizations embezzling funds, or even that the banks themselves go bankrupt.

5.3 Group pressure and suicides

Many MFIs use a model of group lending which makes a group liable to the loan and therefore makes the members of the group very careful about who they allow to be in the group. This makes everybody try to repay their loan to keep their "social capital" in the group. Since microcredit often are given to people in villages it is important for the "survival" of the village that people cooperate. If someone creates problem by behaving badly according to the group this creates a risk of the person being excluded from the group, which decreases the well-being of him or her. There have even been cases where people have put so much debt on themselves that they committed suicide in order to avoid the pressure. [9] [10]

5.4 Classic supply and demand problem

What microfinance can do when helping people start businesses is that it increases the supply on the market with the newly started business. For instance if a lot of people choose to grow tomatoes by investing capital they have lent through microloans the supply of tomatoes would increase on the market. But people still have the same demand of tomatoes, since nobody has gotten more own wealth, the money available to buy tomatoes with are still limited. When the demand doesn't increase, if someone start a tomato business that does well, that person makes other peoples income less by taking market shares. The tomato market is a zero sum game for the whole community. One could of course argue that when there are more money in the market through loans the price of tomatoes would rise. Then a totally artificial market is created which will created a economic bubble which will burst sooner or later. The general idea is that you don't look at the entire population in most studies. Often only the people that is given microloans are studied. This leads to a ”survivorship bias” when looking at the impact of microcredit on welfare, women's empowerment and the general well-being of people. [17]

6 Conclusions

In this study we have found that a big part of the world have had, and still have a deficit of financial services and especially credit. The more traditional banks have problems to serve these people for several reasons but in particular the lack of an existing financial system and track records for the people who need credit. In this void a group of new companies have risen, the micro-financial institutes which have new innovative ways to lend money. These new methods which are tackling the big risks of lending money to unknown people without any collateral still ensure low costs for the lender and borrower, which is important because of the small size loans, and have had great success. They are reaching many people who never had a lone before and with impressing high repayment rates. But there are problems as well, the new methods often create high social pressure with implications on mental health. Because the borrowers also have very limited experience with monetary systems the need for education is high creating an important mission for the micro-financial institutes: By providing credit and a beginning of a financial system they can empower and help to create prosperity in these communities.

7 Further reading

For further information about Muhammad Yunus and Grameen Bank please see [6], where Yunus talks about his idea behind microcredit and banks.

For more information of the formal lending model, please see [11]. Also, for an interesting lecture regarding the impacts of microfinance found by a study at MIT in India, see [18].

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