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Micro-financing Practices with Mutual Benefits

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Abstract

The purpose of this paper is to deliver the idea on how lender and borrower will share a mutual benefit in Islamic Microfinance practice.The objective of microfinance facility is to help reduce poverty and at the same time it achieves sustainability and self-sufficiency. Both goals motivate the Microfinance Institutions (MFIs) to find the contract that will benefit the borrower (customer) and lender (MFIs). However, the current contract gives more benefit to lender rather than borrowers based on the debt contract. Therefore, in this paper a contract of qard will be introduced that will provide mutual benefits to both parties.

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1.   Introduction

Microfinance is one of the most effective programs used especially in developing country to reduce poverty, as argued by Morduch (1999) and Aghion and Mourduch (2005). This microfinance program is offered by microfinance institutions (MFIs) to the poor via informal and formal arrangements. The micro-finance is normally in the form of credit, or popularly known as micro-credit.[3] The MFIs is expected to extend small loans to the poor for self-employment projects that generate income, allowing them to take care of themselves and their families (Micro-credit Summit, 1997).

This microfinance institution, as stated by Ledgerwood (1999), is also expected to: empower women or other disadvantaged population groups; create employment; help existing businesses to grow or diversify their activities; and encourage the development of new businesses.

In an effort to achieve those objectives, policy makers must have two long term goals of microfinance. MFIs goals are can outreach the targeted groups and can be sustained or financially self-sufficient. According to Ledgerwood (1998), financial self-sufficiency indicates whether or not enough revenue has been earned to cover both direct costs, including financing costs, provisions for loan losses and operating expenses, and indirect costs, including the adjusted cost of capital.[4]

In trying to achieve microfinance sustainability or self-sufficiency, cost is an important issue.[5] In minimizing their cost, MFIs will try to ensure that they only serve the profitable (promising) customers but they might exclude some needy ones. Acknowledging the importance of microfinance for the poor, capital providers (such as sadaqah, government grants, and zakat) have to provide funds to make sure the microfinance can last long and can provide financing for many customers. According to Aghion and Morduch (2005), subsidy is deployed to compensate formal financial institutions such as banks for entering into risky markets due to high transaction costs and inherent risks. The subsidies are also used to keep interest rates low for poor borrowers. So, with the funds from the capital providers, microfinance can provide financing to customers with low interest rates (it is normally called 'subsidized rates').

Both goals motivate the MFIs to find the contract that will benefit the customers and MFIs. However, the current contract gives more benefit to lender rather than borrowers based on the debt contract. Therefore, in this paper a contract of qard will be introduced that will provide mutual benefits to both parties.

2.   Theory of Joint Liability Borrowers

In micro-finance, there are theory of jointly liable borrowers as explained in detail by Ghatak and Guinnane (1999).[6] Every member in a group is liable to loans that are given to the individual in

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[3] After this we refer micro-credit as micro-finance.

[4] Adjusted cost of capital is considered to be the cost of maintaining the value of the equity relative to inflation and the cost of accessing commercial rate liabilities rather than concessional loans. Financial self-sufficiency can be calculate as operating income / (operating costs + financing costs + loan loss provisions + cost of capital)

[5] Cost here includes default rate.

[6] See also Zulkefly (2010) and Chatterjee & Sarangi (2005)

that group. This means the members in the group have jointly connected. This type of contract practices well-known in Grameen Bank's Group lending program and AIM in Malaysia.

The benefits of having joint-liability lending (as argued by researchers like Aghion and Morduch (2000), Lensink and Mehrteab (2001), Agarwal et. al (2010) and Zulkifly (2010) could help on: (a) group formation; (b) improve repayment; (c) avoid costly audits; and (d) encourage borrowers to repay their loans with imposing costly sanction.

By forming a group, they says that joint liability lending institutions can do better than conventional bankers *in some social contexts* because (i) members of a community may know more about one another; and (ii) poor people's neighbors, may be able to impose powerful non-financial sanctions at low cost. An institution that gives poor people the proper incentives to use information on their neighbors and to apply non-financial sanctions to delinquent borrowers can out-perform a conventional bank.

However, they also highlighted that the transactions-costs argument is under many circumstances, it is only slightly more expensive to administer a group of *n* loans than to administer a single loan. Group lending enables a reduction in transactions costs per loan. If the projects to be funded are *simple* and *similar* in terms of their characteristics, the time path of their returns, and the geographic location of their activities, then coordinating the lender's dealings with these borrowers by putting them together in a group can save on processing, screening and loan collection costs.

The repayment could also be improved, because theoretically, we can avoid risky borrower and select safe borrower only. A risky borrower could pay the safe borrower to accept her as a partner, but it has to imply large payments till the risky borrower would not want to make them. In addition, researchers like Chatterjee and Sarangi (2005) argue that the repayment rates could also be improved through peer monitoring even when monitoring is costly as long as social sanctions are effective enough or monitoring costs are low enough. As a result the group formation will display positive assortative matching under a joint-liability.

In other perspectives, audits take place less often under joint liability, so expected audit costs are lower and so is the equilibrium interest rate. Hence, social surplus is always higher under joint-liability contracts. In short, a joint-liability contract might make lending possible.

Although, the benefits of joint liability are widely accepted, but several researchers such as Bond (2002), Chatterjee and Sarangi (2005), Asyraf (2006) and Zulkifly (2010) have highlighted several concerns. Bond (2002), in his research on joint liability has found common feature of financial intermediaries. It is the welfare of one borrower is adversely affected by the poor performance of other borrowers. Therefore, he suggests a degree of joint liability among the borrowers of a financial intermediary. He provides an explanation for this observation. It demonstrates that formalization of a financial intermediary as a delegated monitor, intermediation with joint liability between borrowers Pareto dominates intermediation without joint liability. He explains the existence of joint-liability between the borrowers of a financial intermediary. Consider an intermediary whose income is too low have to pay the face value of investor claims. He can default on the investor claims or go to the subset of borrowers who still have resources, and request a higher payment. This second option entails the borrowers monitoring the bank to make sure these extra funds are really needed, and this option is cheaper in terms of aggregate expenditures on monitoring.

Since introducing a degree of joint liability among borrowers reduces total monitoring costs, it is possible to make all parties better off. The payments to the investors can be reduced, since they monitor less, while the expected payment made by the borrowers can be reduced (i.e.

the interest rate lowered), since in aggregate the intermediary and investors monitor less. Decrease the payments from the intermediary to the investors.

However, in Islamic banking practices, as argued by Asyraf (2006), that group-based lending approach is not a subject alien to Islam, as it is deeply inscribed in Ibn Khaldun's concept of 'Asabiyah or social solidarity. By adopting group-based lending approach, Islamic bank may offer various Islamic financial products and services without compromising on the issue of institutional viability and sustainability. He further argues that this mechanism could also be applied in the group-based lending scheme of microfinance.

While, Chatterjee and Sarangi (2005) found that the joint liability literature claims that positive assortative matching, or risk homogeneity, is always the first best solution. However, they examine this claim in presence of group formation costs and find that the assertion is not always true. Joint liability is actually costly.

Okura and Zhang (unpublished paper) compares simultaneous and sequential group lending in terms of their ability to encourage borrowers' monitoring effort. They found that the leader member in sequential lending chooses higher working and monitoring effort levels, whereas the follower member in sequential lending chooses lower working and monitoring effort levels. Furthermore, they found that, in the sequential lending model, the repayment rate, and hence the repayment revenues to the lender, is higher than that in the simultaneous lending model.

3.   How Do the Model of Mutual Benefits Work?

In Ghatak and Guinnane (1999), they focus the discussion on joint-liability on lending program and their argument is complementary to transactions-costs argument. Joint-liability enables a reduction in transaction costs per loan in term of processing, screening and loan collection costs.

Joint-liability model use simple set-up with Y take two values, high (Y^H) and low (Y^L) where Y^H > Y^L 0. In this case, assume $Y^L = 0$. Y^H is with the probability (p) 0 to 1. Each project requires 1 unit of capital and the lender needs to be paid back and amount of b > 1 per loan, principal plus interest. Borrowers will borrow only if their payoff exceeds the opportunity costs of their labor, L. The project returns of different borrowers are assumed to be expected return from the projects is greater than the opportunity costs of the capital and labor employed in the project

$$pY^H > b + L$$

pY^H is expected return (p is probability, Y^H is output)

b is payment (principal loan + net interest rate)

L is labor employed

Joint-liability imposed interest rate because borrower do not have physical or financial assets to pledge as collateral, so lenders no recourse if borrower default. Lender also cannot take force the borrower to undertake labor services to repay the debt. This rule is to protect lender.

In joint-liability theory, to overcome adverse selection problem, they imposed c (additional amount) if the project has low output. Under joint-liability credit contract, a borrower must repay her loan r whenever her project yields high return, but if her partner's project yields low returns, she must pay an extra amount c. This rule is to avoid the group to get risky members. Again this rule will protect lender only.

While, to overcome moral hazard problem which to protect lender and others borrowers but group members have to take the monitoring job as it should be go to lenders or institutions which provide the loan. They can reduce their monitoring cost as along as social sanction is effective enough and monitoring cost low enough. The monitoring cost actually goes to the borrower. They have to consume their time to monitor their friends and let say in the case of default the borrower cannot borrow in the next turn, break the friendship and waste time and energy also. In this case also, they assume that the theory will force borrower to choose only high output project.

In joint liability theory also discuss on costly state verification. They explained how joint-liability can make sure borrowers state the true. If they get high output then they will report high and pay the loan as they should in contract and if they get low output, they will report low and pay the amount that they should pay. What ever it is, the interest rate (r) is influence by the audit cost. Again the rule still to protect lenders and force the borrowers to get high output to ensure that they will pay low r.

Joint-liability have provide rules to protect lender but costly to borrower. This model will give more benefit to lender. Therefore, the joint-liability model should be revised to provide mutual benefit to both lender and borrower. There are three (3) suggestion on how to ensure mutual benefit; (1) re-structuring, (2) using zakah, and (3) reduce charge.

In Islam, we should avoid the interest rate because it is not allowed in Islamic practice. To re-structuring joint-liability model, we use musyarakah contract to explain how mutual benefit between lender and borrowers can works. Musyarakah is a profit and loss sharing partnership. In Musyarakah financing arrangement, the lender and the borrower will both contribute their capital as well as expertise in a project. Profit and loss will be shared normally based on the capital contribution.

This model use simple set-up with output of the project (Q) take two values, high (Q^H) and low (Q^L) where $Q^H > Q^L$ 0. Q is with the probability (p) 0 to 1. Each project requires 1 unit of capital. The lender will provide the capital as equity (e) to the project. Actually, the equity (e) is loan provide by the borrowers. But in this qard it is equity because the borrower brings in the capital into the project. Then, the borrowers will operate the project with a return (R). The borrower and lender will share mutual benefit based on the qard (contract). The qard must be arranged between borrowers and lender before the loan disbursed.

The lender will provide the loan if he was offered reasonable mutual benefit which comes from the return of the project (R) compared to risk of business (B). While the borrowers will borrow if expected return more than cost of business. The cost of business is include capital is loan that the borrower provide and labor employed (L).

$RQ > e + L$

Let say a lender provide RM10,000 to the borrower with qard 10-90 which 10% is for the lender and 90% for the borrower. The revenue of the project is RM30,000.

Therefore, the project return is: RM30,000 – L – RM10,000 = (Let say it is RM10,000)

The project return which is share of equity will divide into 90% (RM9,000) to borrower and 10% (RM1,000) to lender. This is a mutual benefit contract. It so happen if the project fails. The losses will be divided into two as the share of equity agreed in the qard.

The lender will provide the loan to other borrowers as many times as he wanted to multiply his return. If he provide the RM10,000 for 10 times, so he will get the return 10 times. He also will not worried about the collection of the loan because the borrower will declare the truth since the project also provide return to borrower. The borrowers will make sure the project will get high return because he also will get share from the return which is share of equity. So, the mutual benefit could work better with avoid the moral hazard and adverse selection.

While, how zakah will help borrower? In the joint-liability model, the borrowers will be punished with additional rate (c) to avoid adverse selection. However, in Islam there are zakah system to help the borrowers who could not pay their loans. In zakah, the borrowers who could not or bankruptcy, they will be include in one of the eight (8) categories of the zakah receiver. It is because the borrowers who are bankruptcy means they are poor and we should help them and zakah is one of the way to help them. Therefore, zakah can be use to help the borrower as well as lenders will be protected.

The third suggestion is to reduce charge. In order to ensure the mutual benefit to both lender and borrower, the charge that imply to borrower to avoid adverse selection, moral hazard and also to overcome the costly state verification should be reduced. The charge should be reduce to the minimum level till the borrower be able to pay and will not burden them. Microfinance is made to help poor and small income group people, by impulse small charge but at many stages the charge become larger and they will not afford to pay and yet the objectives of the microfinance cannot be achieved.

4.   Conclusion

The joint-liability model that introduced by Ghatak and Guinnane is more beneficial to lenders. The model use interest rate and also additional rate to avoid adverse selection, moral hazard and to reduce costly state verification. Therefore, we suggest re-structuring the model by using Musyarakah to ensure mutual benefit to both lender and borrower. Not only that, we also suggest zakah to help borrower and reduce charge that imply to borrower in order to help borrower.

Reference

Agarwal S., Ambrose B. W., Chomsisengphet S. & Liu C. L. (2010) *Joint Liability Lending and Credit Risk:* Evidence from the Home Equity Market.http://ssrn.com/abstract=1651306.

Aghion A. B. and Jonathan Morduch J. (2000). Micro finance beyond group lending. *Economics of Transition,* 8(2), 401-420.

Ahlin C. (unpublished paper). Risk-Matching and Diversification in Joint Liability Borrowing Groups. Draft Prepared for Applied Dynamics Workshop.

Asyraf Wajdi Dusuki. (2006). Empowering Islamic Microfinance: Lesson from Group-Based Bond P. (2004). Joint liability among bank borrowers. *Economic Theory.* 23: 383-394.

Chatterjee P. & Sarangi S. (2005). Enforcement with Costly Group Formation. *Economics Bulletin.* 15(9): 1−8.

Ghatak M. & Guinnane T.W. (1999). The economics of lending with joint liability: Theory and practice. Journal of development economics. 60:195-228.

Lending Scheme and Ibn Khaldun's Concept of 'Asabiyah. Paper presented at Monash University 4th International Islamic Banking and Finance Conference. Kuala Lumpur.

Lensink R. & Mehrteab H.T. (2003). Risk Behavior and Group Formation in Microcredit groups in Eritrea. CREDIT Research Paper, Centre for Research in Economic Development and International Trade, University of Nottingham. No. 03/02.

Okura M. & Zhang W. (unpublished paper) Group Lending Model under Sequential Moves.

Zhang W. (2008). Ex-ante moral hazard and repayment performance under group lending. Journal of East Asian studies. 6:145-171.

Zulkefly Abdul Karim (2009). Microfinance and Mechanism Design: The Role of Joint Liability and Cross-Reporting. Munich Personal RePEc Archive (MPRA). Paper No. 23934