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An Empirical Analysis of Micro Credit Repayment in Northern Sri Lanka

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ABSTRACT

This study provides an empirical analysis of microcredit repayment in Sri Lanka. Multi-stage stratified random sampling technique was used to collect the data from 337 women members of microfinance institutions (MFIs) in the study area that were five districts of Jaffna, Kilinochchi, Mannar, Mullaitivu and Vavuniya have been selected for gathering information regarding repayment of microcredit loan and the factors which influence on repayment which were amount of loan, loan interest, decision making in household level, control over resources and loan management. Linear multiple regression was used to find out the variables that affected micro credit repayment. However the variables of decision making influenced lower level than other variables and control over assets significantly negatively influenced on repayment and the other variables that significantly influenced on repayment of loan (P<0.05) at 0.05 level. It is concluded from the results that if women have more decision making power and control over assets in household level the repayment will be high.

Key words: Control over Assets, Decision Making, Loan Interest, Loan Management, Micro Credit and Repayment.

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INTRODUCTION

Micro Finance Institutions (MFIs) have vital role among the poorest people to increase their income in Developing Countries. The poorest people are the vulnerable people who are living in poverty and unhygienic condition without nutrition, no access to education and their per capita income per day is below US$ 1.9 (World Bank, 2011). MFIs play an important role against the poverty by assisting poor people to increase their wealth (Zama, 2004, cited by Haq et al., 2008). The MFIs are empowering the poor people by providing financial and non-financial services to enhance their living standard through the facilities for poverty alleviation, health nutrition, education and self-employment opportunities and helping to get capital and independent income and contribute economically to their family and society.

The United Nations (UN) declared 2005 the International Year of Microcredit (Delfiner et al., 2006). Though, Grameen Bank lend both men and women at equal rates initially, presently women became 95% of the bank's clients. 75% of the microcredit recipients are women in worldwide (Delfiner et al., 2006). From 1980s, other than lending to women who have higher repayment rates, and accepts smaller loans than men. However, the repayment is the challenge to women due to unable to maintain the sustainability of their self-employability and lack of decision making power and control over assets in household level. Further, many micro credit institutions have used the goal of empowering women to justify their disproportionate loans to women. Micro credit is considered as a tool for socioeconomic development. With regard to the Sri Lankan context the female headed households are the experience and women have been widowed, deserted and separated in their history. The female households have been forced to take the responsibility of their families with their own earnings due to the civil war. The MFIs help to the poor people by giving revolving fund to enhance their living condition in the post war context. Therefore, it is worth to investigate on loan repayment of micro credit on self-employment and examine to what extent the repayment depends on the factors related to loan and household level variables. And it is necessary to reveal the challenging issues of repayment of micro credit which borrowed by women entrepreneurs.

MATERIALS AND METHODS

Research Problem

Micro credit schemes have been accessed by more than 65 million poor people of whom about three quarters are women (NycanderLotta, 2004). In Bangladesh, NycanderLotta, (2004) found that, microcredit schemes are extensively important, through the improvement of women's position in decision-making on household expenses and family planning. In recent years, governments and NGOs in many low income countries including Sri Lanka have introduced micro credit programs targeted to the poor. Many of these programs especially target women are more likely than men to be credit inhibited, have limited access to the labour market, and have an discriminatory share of power in household decision making (Pitt et al., 2006). Women's access to financial services has increased substantially in the past 10 years some MFIs are providing a decreasing percentage of loans, as these institutions develop and provide new loan products. Despite a decline in female unemployment, 7.4% of the women still live below the poverty line (Attapattu, 2009). This is major challenge to the government and it has focused empowering women economically. Therefore, it has been considered government and donor funding for self-employment programmes through financial and non-financial activities. Credit can help women take-up farm and allied activities such as keeping milk cattle, poultry or independent small enterprises, enabling them to respond to the opportunities created by the process of development. Micro credit for women has been the mantra that has worked like nothing else to pulling the poor women out of poverty and empowering them wherever it was introduced. Under post war development the government has initiated various activities to enhance the standard of living of the women who have been affected by the war situation that killed or disabled their male partners and they have taken the responsibilities in the family as the household head. However the repayment is the problem to the women who have lost their infrastructure facilities during the war situation. To provide the infrastructure facilities they must be granted by the donor funds and other infrastructure facilities. Credit is burden to the poor people which has to be repayment within the specific period. This is the reason to the failure of micro credit target which to be achieved to enhance the living condition of poor people.

However, there is no sufficient research to look beyond micro credit repayment in Northern Province of Sri Lanka. The influencing factors on repayment have been analyzed in developing countries especially in Pakistan, Bangladesh and India. Under post war development there are so many projects intended to empower poor people in Sri Lanka with the help of foreign aids. There are few studies that empirically support the claim of repayment of micro credit in helping the poor in self-employment, though the enormous contribution of the sector has been the organization of the poor, particularly women to access critical financial services. The loans are provided by organization with collective of collateral and the women repay regularly by the self-employment is questioned. As per the researcher's observation most of the women are obtaining loan and they repay it regularly but the self-employment activities are not going on continually. The researcher tried to find out the significant impact of repayment on influencing factors and the challenges facing by them when they repay the micro credit. This study investigates: "Whether the micro credit loan repayment of women entrepreneurs make them to enhance their activity independently in the society".

Research Objectives

The major objective of this study is to identify the factors associate with micro credit loan repayment of women headed families in Northern Sri Lanka. And the other sub objectives are: To examine the association with the determinants of loan repayment and the repayment activity of clients. To identify the challenges when they repay the loan to the MFIs.

Literature

Bhatt and Yang (2002) concluded that repayment increased with the level of education and the level of household income, business type and borrower's experience were not significant predictors of loan repayment.

Addis AA (2006) identified that repayment capacity increased with the level of education.

Eze and Ibekwe (2007) found loan size, age of beneficiaries, household size, and number of years of formal education and occupation as the key predictors of loan repayment.

Brehanu and Fufa (2008) concluded that borrowers with larger agricultural farms, higher numbers of livestocks and farms located in areas with sufficient rainfall had a higher repayment capacity on their loans.

Dayanandan and Weldeselassie (2008) identified that amount of credit, educational level and occupation were important factors in loan repayment.

Afolabi (2010) examined eight variables: farming experience, amount granted, gross farm income, farm size, family size, non-farm expenses, interest rate charged and non-farm income. Of these, only four variables had significant impact on loan repayment, namely loan amount, farm size, interest charged and non-farm income. In his earlier study, (Afolabi, 2008) that examined socio-economic determinants of loan repayment among small scale farmers in South Western Nigeria, using discriminant analysis, found that age of farmers, gross farm income, non-farm income, net farm income, interest rate charged and farming experience were significant factors in discriminating between defaulters and non-defaulters.

Akwasi and Idowu (2011) found that repayment problems decreased with education level, possession of financial management skills, timely disbursement of the requested loan and technical support received by the farmers.

Acquah and Addo (2011) found that loan repayment increased with the fishing income, loan size and amount of investment made.

Onyeagocha et al., (2012) found that default rate decreased with loan size, level of education, the length of experience in occupation, the ability of the supported business to make profits and portfolio diversity or ownership of multiple enterprises. Another study in Nigeria that analysed smallholder farmers' loan repayment capacity using household data from 110 cooperative farmers in Ogun State, also found that loan size and farm size had significant positive influences on loan repayment capacity whereas, household size had a negative influence on loan repayment (Ojiako and Ogbukwa, 2012).

Ugbomeh etal; Ofuoku (2008) found that household headship was a determinant factor in loan repayment. In particular, women were more likely to face repayment difficulties when they were the sole household heads. They also found that interest rate and household size were negative predictors of loan repayment. On the other hand, their study established that women borrowers were able to meet their repayment obligations in case of farm output price stability and when borrowers were committed to self-help groups.

Evidence from Kenya shows that the ability of women business owners to repay their loans was negatively influenced by social responsibilities such as the feeding of children, paying of house rents, hospital bills, and the number of households members (Sangor et al., 2012).

From the literature review, we assume that the factors influencing loan repayment differ not only from one programme to another, differ according to the nature of supported activity, situation and country but also differ according to the demographic characteristics of the borrowers, their households and other external factors facing both the borrowers and their business activities.

Methodology

The population of this study is about the self-employable women headed families in the Northern Part of Sri Lanka. This study is based on a survey of 337 self-employable women who had accessed micro credit in Northern Province which has five districts such as Kilinochchi, Mannar, Mullaitivu, Vavuniya and Jaffna. The women have been experienced more than 2 years to select nothing less than 40 numbers to make up the sample from each districts. There were 1,656 active self-employable women in 2012 in Northern Province. Their initial capital was below Rs. 50,000. And they have no employees or below 5 employees in their business activities. Self-employable activities are engaged their own capability. And the post war situation has been taken for this analysis. In this situation after selecting some of the respondents, then the snowball sampling method also were used to identify the potential self-employable women in those divisions. And finally, the self-employable women headed families were conveniently selected and then randomly selected who have experience more than 2 years by using snow ball sampling method that make up the sample size of the research. During the survey, no visits were made to the business locations of the clients. Instead, borrowers participated in the survey when coming for their weekly repayment meetings. Surveys were held in the weekly repayment meetings at community centers. During the survey, the questionnaires were distributed to respondents for self-administration.

In case of those who could not read or write were assisted. Upon filling the questionnaires, all questions were crosschecked for missing data, errors and other ambiguous answers; and clarification was sought before a respondent could leave the centre. The average time taken to administer the survey instrument was forty (40) min per individual. The collected data was tabulated, interpreted and simplified to make them eligible for the research purpose. The descriptive analysis, inferential analysis accounting and mathematical techniques were mostly used in the study. With regards to the quantitative

Table 1. Breakdown of business activities of respondents.

Occupation	Frequency	Percentage	Cumulative Percentage
Palmyrah Leaf Products	10	3.0	3.0
Tailoring	19	5.6	8.6
Agriculture	31	9.2	17.8
Shop keeping	39	11.6	29.4
Poultry farm	109	32.3	61.7
Food making	31	9.2	70.9
Coir based product	11	3.3	74.2
Leather product	13	3.9	78.0
Others	74	22.0	100.0
Total	337	100.0	

Source: Survey results.

Table 2. Regression output of the micro credit repayment model.

Variable	Model
Amount of Loan ß	0.332
Loan Interest ß	-0.330
Decision making ß	0.157
Control over Assets ß	-0.245
Loan Management ß	0.175
R	0.243
R2	0.259
Adjusted R2	0.248
F - value	5.215

Source: Survey Data analysis.

analysis, the SPSS software 16 version was employed for the data entry and to calculate percentage values. The resulting data was then analyzed and interpreted. For descriptive analysis some descriptive statistical measures such as mean, standard deviation were used. Frequency and percentage were used for tabular analysis. Mean and standard deviation were computed to categorize the respondents. Regression and correlation analysis were used to inferential analysis it is needed to make the study more enthusiastic. For this purpose the following hypotheses have been developed in order to prove with the results.

$H_{1a:}$ There is a relationship between amount of loan and repayment of micro credit.

$H_{1b:}$ There is a relationship between Loan interest and repayment of micro credit.

$H_{1c:}$ Decision making power has an impact on repayment of micro credit.

$H_{1d:}$ Control over assets influence the repayment capacity of micro credit.

$H_{1e:}$ Loan interest is an important factor to determine micro credit repayment.

RESULTS AND DISCUSSION

Analysis regarding the form of sample respondents and types of self-employment activities reveal categorizes of their activities in the Northern Province. The collected data in this regards have been revealed in Table 1. From the analysis of Table 1 it is found that out of the total sample 32.3% of self-employable persons belong to poultry farm followed by 22% for others including making handicrafts, packaging of chilly, powder of chilly, rice flour, nutrition flour, dry chilly and pickles etc., and 11.6% for shop keeping, the rest of 9.2% is agriculture and food making each and 5.6% tailoring, 3.9 leather products, 3.3 coir based products and 3% for palmyrah leaf products. So it is evident that most of the sample respondents have initiated the poultry farm and shop keeping. And the rest of 22% belongs to various types of activities.

Empirical Results of Micro Credit Repayment Model

Table 2 shows the regression micro credit repayment model. The F value (5.215) was highly significant ($P < 0.05$) implying that the model was a good fit. The adjusted R^2 was 0.259 revealed that the variables in the model were able to explain 26% of variability in percentage of loan repayment. The other remaining 74% was explained by other variables which were not explained here. The all variables such as Amount Loan, Loan interest, Decision making, control over assets and

Table 3. Coefficients[a].

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	1.468	.203		7.222	.000
Amount of Loan	.306	.044	.332	7.020	.000
Loan Interest	.290	.042	.330	6.895	.000
Decision Making	.126	.049	.157	2.569	.011
Control over Assets	.182	.043	.245	4.284	.000
Loan Management	.152	.042	.175	3.637	.000

a. Dependent variable: repayment of loan.

Loan management were significant because the significant value was less than 0.05 ($P<0.05$).

Amount of Loan

From the above results of regression model, H_{1a} is accepted because significance p value is less than 0.05. As per the regression results in the coefficient table, it has been noted that fitted model revealed that there is no significant differences between amount of loan and repayment of loan. It means that the amount of loan influences positively on repayment of micro credit (that is, ß= 0.332, p value <0.05).

Loan Interest

From the above results of regression model, H_{1b} is accepted because significance p value is less than 0.05. As per the regression results in the coefficient table, it has been noted that fitted model revealed that there is no significant differences between Loan interest and micro credit repayment. It means that the interest of loan influences positively on repayment of loan (that is, ß= 0.330, p value <0.05).

Decision Making

Table 3 shows that there is a relationship between decision making and repayment of loan. Here, H_{1c} is accepted because significance p value is less than 0.05. As per the regression results in the coefficient table, it has been noted that fitted model revealed that there is an impact of decision making on repayment of micro credit. The decision making power influence positively on repayment of loan (that is, ß=0.157, p value = 0.000).

Control over Assets

The regression analysis is used to find out the relationship / impact of control over resources and repayment of loan. Table 2 shows that there is a relationship between control over assets and repayment of micro credit. Here, H_{1d} is accepted because significance p value is less than 0.05 in Table 2. As per the regression results in the coefficient table, it has been noted that the fitted model revealed that there is an impact of control over assets on micro credit repayment. It means that control over assets influence on repayment of loan (that is, ß= 0.245, p value = 0.00).

Loan Management

The regression analysis is used to find out the relationship / impact of Loan Management and repayment. The Table 2 shows that there is a relationship between Loan Management and loan repayment. H_{1e} is accepted because significance p value is less than 0.05. As per the regression results in the coefficient table, it has been noted that fitted model revealed that there is a significant impact of Loan Management on Loan repayment. It explains that the amount of micro credit predicts 37.4% on women empowerment in terms of Loan management (that is, ß=0.175, p value = 0.000). Here, H_{1e} is accepted because significance p value is less than 0.05. Therefore, the statement ‘’Loan interest is an important factor to determine micro credit repayment’’ has been accepted.

LIMITATIONS OF THE STUDY

This study intended only the self-employable women headed families who borrow micro credit facilities from MFIs. However, the conflict situation ended in May 2009 in Sri Lanka there are no huge amount of SMEs in Northern part of Sri Lanka. The investors hesitated to start the activities due to political instability and they had a bad experience from past years and they are unable to forget that situation. Further, there are no large companies in the selected areas. The results could not be generalized to the Sri Lanka. It has been analyzed in the post war context. The study did not consider the Banking Institutions and large amount of loan capital.

Only the women borrowers have been considered for this study.

CONCLUSION

The above all five variables positively influence on repayment of micro credit because of p value is less than 0.005 (P=0.005). Repayment rate was high and members of MFIs spending money on their consumption and business activity purposes. There are various factors influencing on micro credit repayment however these five factors such as amount of Loan, Loan interest, decision making, control over assets and loan management has 26% influence on repayment. However the amount of loan, loan interest and loan management influence the repayment of loan directly the decision making power and control over assets influence on repayment indirectly at household level. The clients involved in agricultural and live stocks activities who were facing problems in repaying their loan, this study found that the lending system, such as weekly loan repayments used by MFIs might have contributed to the problem. Clients involved in agricultural and live stocks activities used credit both to buy inputs and assets.

These people have different time frames for their income cycle. For example, if a person uses credit to buy seed, they need at least six months to one year to receive the revenue from harvesting the crop. Therefore, they cannot pay back the loan in two weeks. So, the management of MFIs should consider their lending system and modify it in order to reduce the burden on the borrowers in repaying loans. Many borrowers involved in small businesses preferred to make loan payments on a weekly basis. However, many of them could not meet their weekly loan repayment schedule (Berita, 2009). MFIs should guide borrowers to choose the most suitable mode of payment and it must be based on the borrower's revenue cycle. Agriculture is exposed to climatic factors beyond the borrowers' control. This study recommends that microfinance institutions offer a micro insurance especially weather insurance. An insurance plan not only reduces the burden on the borrowers if their agricultural project failed but also reduces the financial burden on the microfinance institution from uncollectible loans. As a conclusion, the flexibility of the lending contract is really needed in Sri Lanka.

RECOMMENDATION

This study seeks the way for future research. A unique conceptual model could be proposed to enhance this study towards micro credit repayment myths in Sri Lanka. Additionally the other socio economic and demographic variables influenced on repayment of micro credit could be used to find out the results. Further this study helps to find out the problem faced by the clients when they repay the loan and it gives solution to the MFIs and clients to avoid the problems and challenges.

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