Impact of Microfinance on Household Income: Special Reference to Kopay DS Division in Jaffna District

H. Thavarasasingam[1*] and S. Balagobei[2]

[1]*Department of Financial Management, University of Jaffna, Sri Lanka.*
hemaluxjini3@outlook.com

[2]*Department of Financial Management, University of Jaffna, Sri Lanka.*
saseelas@yahoo.com

INTRODUCTION

Micro Finance Institutions (MFI) play a vital role in providing financial and non-financial services to poor in developing countries. They focus on micro credit, savings, insurance, and other financial and non-financial services to the low-income people of a country. More than thirteen (13) million micro entrepreneurs worldwide have benefited through microcredit, by using the credit facilities in order to improve their wealth and their families out of poverty (Rathiranee and Semasinghe, 2015).

Microfinance is not a new concept as it has been existed since the 18th century. However, the first organization to receive a greater attention was the Grameen Bank in Bangladesh, which was started in 1976 by Muhammad Yunus. In Sri Lanka, there are variety of MFI providing financial and non-financial services for poor people. According to Yogendrarajah (2014) and Premaratne (2009), such services are provided by licensed commercial banks, licensed specialized banks, registered finance companies, cooperatives, and NGOs. The study attempts to investigate whether the micro finance impacts on household income level in the Kopay DS division of the Jaffna district. Income level of the people will be measured by the extent of increase or decrease in earnings or profit, saving, consumption of the people. This study will help to assess the contribution of MFI to uplift the poor people particularly in a war affected area. Findings of this study may help to accelerate effectiveness and efficiency of micro finance and also to provide useful insights to policy makers in adopting their policies related to microfinance.

[*]*Corresponding Author*

AIM

There are many arguments in relation to microfinance and the result has been an immense debate and inconsistent. Morduch (1998) argues that access to credit assists poor to smooth their income and consumption. Khandker (2005) also emphasizes that micro credit reduces the poverty among poor by increasing consumption and growing income.

On the other hand Ditcher (2007) claims that the provision of credit may jeopardize the livelihood of the poor by putting them further down in the valley of debt thus keeping them below poverty line instead of taking them out. Likewise, Khandker (1998) stresses that microcredit program should not be the sole instrument of poverty reduction.

Although many research have been carried out in microfinance at global level as well as in Sri Lanka, there is a limited knowledge on this phenomenon in a war affected area such as Kopay DS division. Since 39.47% of the total population of Kopay DS division are fallen below the category of income of Rs. 5,000 per month as at December, 2018 (Statistical Handbook, 2019) it is important to identify the poverty alleviation through MFI. Hence, this study formulated the problem statement as, "To what extent the microfinance impacts on the household income in the Kopay DS division?"

LITERATURE REVIEW

Imai, Arun, and Annim (2010) reveal that loans for productive purposes were more important for poverty reduction in rural areas than in urban areas. However in urban areas, simple access to MFIs has larger average poverty-reducing effects than the access to loans from MFIs for productive purposes. Further, Fenton, Paavola and Tallontire (2017) find that microfinance facilitates coping by reducing sensitivity to environmental and climate hazards. Also they cliam that credit is especially important because its availability is uncorrelated with the occurrence of flooding, unlike many other traditional coping responses. Furthermore, microfinance facilitates adaptation by helping households to overcome financial barriers of adopting adaptation options which reduce exposure or sensitivity. However, credit limits are likely to restrict its role to incremental adaptations, which may not meaningfully reduce vulnerability.

Agbola, Acupan, and Mahmood (2017) show that microfinance has had a mildly positive impact on poverty reduction with incomes and savings of microfinance client households being higher than those of non-client households. Thus, they highlight the importance of policymakers implement strategies for promoting and creating greater access to microfinance as this has the

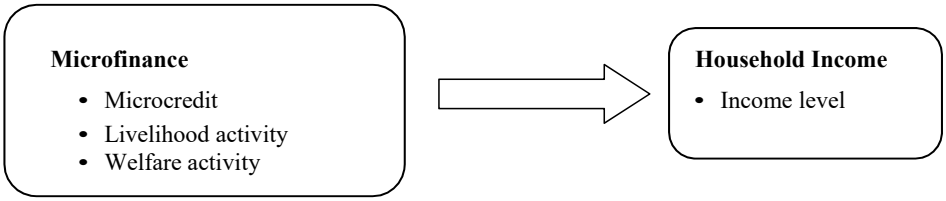
capacity to reduce poverty and improve the well-being of the poor and marginalized in the Philippines.

Sayvaya and Kyophilavong (2015) identify that a village development fund program has a positive impact on household income and expenditure but the impact was statistically insignificant. Moreover, Ullah and Khan (2017) find that microcredit can help to reduce direct risk exposure of poor through income smoothing, while saving can help them to recover from the losses of disasters. This study suggests that there is no specific model of microfinance services which can have a holistic impact on the financial capacity-building, particularly during the rehabilitation process.

According to Moses, Agboola and Faboyede (2011), microfinance focuses on the extension of micro credit, savings and insurance and other financial services to the low-income earners of a nation. Microfinance programs have the power to influence, transform, empower the poor both men and women if appropriately administered. Samer et al. (2015) examined the role of Malaysian microfinance on household income. From their findings, it was revealed that microfinance has a positive impact on household income.

Bhuiya and Khanam, (2016) investigates on the topic of impact of microfinance on household income and consumption in Bangladesh, They findings reveal that the microfinance members remain poorer than non- members and these results suggests that overall impact of microfinance operations on the economic well-being of the microfinance participants is positive. Also, Premaratne (2009) concluded that the accessibility of microfinance depends on factors such as the level of household income, distance to MFI, availability of information technology, interest rate, and level of education, vocational training, and collateral availability. Finally, Herath, Guneratne and Sanderatne (2015) reveal that the household income level before taking microcredit, age of the household head and market availability for products have been significant in affecting women's empowerment and reducing vulnerability.

The following conceptual model has been developed to show the linkage between microfinance and household income.



Source: Developed by Researcher

Following hypotheses have been formulated based on the literature review.

H_1: There is a significant impact of microcredit on household income

H_2: There is a significant impact of livelihood on household income

H_3: There is a significant impact of welfare on household income

METHODS

Concepts and variables identified in the literature review and as shown in the conceptual framework given in the previous section have been operationalized based on a number of indicators specified in Table 1.

Table 1: Operationalization for concept and variables

Concept	Variable	Indicator
Microfinance	Microcredit	Loan size Interest rate Repayment
	Livelihood activity	Employment opportunity Training
	Welfare activity	Technical assistance Food stamp Housing Planning Social welfare payments
Household income	Income level	Income Saving consumption

Source: Developed by Researcher

Cluster sampling method was used in this study and Samurdhi families were selected as the sample from four Girama Niladhari (GN) divisions. Kopay DS division consists of 31 Grama Niladhari divisions, where four GN divisions were selected, Namely Kopay north (J/262) with the total of 427 Samurdhi families, Irupalai South (J/257) with the total of 510 Samurdhi families, Urelu (J/267) with the total of 579 Samurdhi families, and Urumpirai south (J/265) with the total of 875 Samurdhi families.

50 beneficiary families from each GN division have been selected randomly and issued questionnaires. From 200 samples, the researcher could only collect 177 questionnaires and 23 were not responded.

The following model is expressed to investigate the impact of microfinance on household income in Kopay DS division.

$$\textit{Household income} = \beta_0 + \beta_1 MC + \beta_2 LA + \beta_3 WA + \varepsilon_{it}$$

$\beta_0, \beta_1, \beta_2, \beta_3$	-	Regression Coefficients
MC	-	Microcredit
LA	-	Livelihood activity
WA	-	Welfare activity
ε	-	Error term.

RESULTS

Multicollinearity test

Multicollinearity test was carried out to determine whether there is any similarity between the independent variables (i.e., variables of microfinance) in the model using VIF value.

Table 2: VIF Analysis

	Collinearity Statistics	
Dependent Variable: Income_level	Tolerance	VIF
Micro credit	.942	1.062
Livelihood_activities	.878	1.139
Welfare_activities	.905	1.105

Based on table 2, the VIF values are 1.062, 1.139, 1.105 respectively for micro credit, livelihood activities and welfare activities. Thus, it can be concluded that there is no multicollinearity symptoms, given the VIF values obtained are between 1 and 10.

Reliability test

The Cronbach's Alpha value was .704 which is acceptable since the value is higher than 0.6. Consequently, this research instrument is determined as reliable.

Correlation analysis

The Pearson correlation was calculated to identify the pattern of relationship or strength of the relation between the two variables, viz. microfinance and income level.

Table 3 reveals that there is a positive significant relationship between microcredit and income level (r=0.451** p=0.000 < 0.01) while livelihood activity is significantly positively linked with income level (r=0.244**, p=0.001) at 1% level. Moreover, there is a positive significant link between welfare activity and income level (r =0.202**, p=0.007) at 1% level.

Table 4: Correlation Analysis

		Income level	Micro credit	Livelihood	Welfare activities
Income level	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	177			
Micro credit	Pearson Correlation	.451**			
	Sig. (2-tailed)	.000			
	N	177			
Livelihood_activities	Pearson Correlation	.244**	.226**		
	Sig. (2-tailed)	.001	.002		
	N	177	177		
Welfare activities	Pearson Correlation	.202**	.178*	.298**	
	Sig. (2-tailed)	.007	.049	.000	
	N	177	177	177	177

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Regression Analysis

The results of regression analysis are shown in table 5.

Table 4: Regression Analysis

	Coefficient	Std. Error	t	Significant value
Constant	1.643	.293	5.616	0.0000
Microcredit	.398	.067	5.949	0.0000
Livelihood activity	.107	.063	1.696	.092
Welfare activity	.115	.076	1.510	.133
R-squared				.234
Adjusted R-squared				.221
F-statistic				17.662
Prob(F-statistic)				0.000
Durbin-Watson				1.868

a. Dependent Variable: Income level

Table 5 shows that the value of adjusted R square is 0.221.This figure explains the variation to total variation converting the 0.221 to a percentage, therefore, it is concluded that approximately 22.1% of the total variance in income level can be determined by all dimensions of microfinance as the independent variable in the model. Further, the model reveals that the remaining 77.9 % of variability was not explained in this model. It is also observed that the model is good fit because the sig (F -statistic) is less than 0.05.

Further, table 5 presents the regression coefficients, their associated t statistics and p values. The results indicated that the microcredit has a positive and significant impact on household income level (ß=.398, p=0.0000 < 0.01). Therefore, hypothesis 1 is accepted. Meanwhile, livelihood activity and welfare activity show insignificant impact on income level with the p value of 0.092 and 0.133, respectively. Thus, hypotheses 2 and 3 have not been accepted.

Most of the beneficiaries were given Samurdhi loan to build or renovate the house, and to start or build a self-employment. Others do cattle fostering, agriculture, extend the petty venture, for example, fruit shop, and consumption by using Samurdhi loan. Also, few of them obtain loans to fix electricity, build a sanitary facility or fix water facility for their house.

Majority of the respondents (70.6%) are getting monthly transfer while more than half of the respondents (58.2%) never received any social welfare payments. Further, around 84.7% of the total respondents are not getting any livelihood technical or training facilities, as this is not in active in the Kopay DS division except Kopay GN division (J/262). However, these activities are exist in the Samurdhi scheme. Based on the discussion with the respondents, only in J/262 (Kopay north) division has conducted training or assistance activities such as providing saplings and seeds, training for cattle fostering and sewing, training on agriculture, and embroidery training. According to the regression result, it is also noted that LA is not impact on household income.

CONCLUSION

This study has been conducted to examine the impact of microfinance on household income level in Kopay DS dvision. 177 Samurdhi beneficiary families have been selected as the sample from 4 GN divisions in

Kopay. The results of the study revealed that microcredit has a positive and significant impact on income level whereas livelihood activity and welfare activity have not been significantly impacted. Hence, this study suggests that the livelihood activity and welfare activity need improvements in order to achieve the objectives of microfinance institutions. Therefore it is recommended to adopt relevant technical training facilities for clients. This may lead to improve the self-employment of clients especially among the unemployed youngsters. Future research can be undertaken to examine other microfinance instruments as well as women empowerment.

KEYWORDS

Microfinance, Microcredit, Livelihood activity, Welfare activity, Income level

REFERENCES

Agbola, F. W., Acupan, A., & Mahmood, A. (2017). "Does microfinance reduce poverty? New evidence from Northeastern *Mindanao, the Philippines"*. Journal of Rural Studies, 50, 159–171.

Bhuiya, M.M.M., Khanam, R., Rahman, M.M., & Nghiem, H.S., (2016). " Impact of microfinance on household income and consumption in Bangladesh: Empirical evidence from a quasi-experimental survey". The Journal of Developing Areas, 50(3), pp.305-318.

Dichter, T. W., & Harper, M. (Eds.). (2007). "What's wrong with microfinance?" (pp. 9-17). Rugby: Practical Action Publishing.

Fenton, A., Paavola, J., & Tallontire, A. (2017). "The Role of Microfinance in Household Livelihood Adaptation in Satkhira District, Southwest Bangladesh". World Development, 92, 192–202. 60–1774.

Herath, H.M.W.A., Guneratne, L.H.P. and Sanderatne, N., (2015). "Impact of microfinance on women's empowerment: A case study on two microfinance institutions in Sri Lanka". Sri Lanka Journal of Social Sciences, 38(1), pp.51-61.

Imai, K. S., Arun, T., & Annim, S. K. (2010). "Microfinance and Household Poverty Reduction: New Evidence from India". World Development, 38(12), 17

Khandker, S.R., (1998). "Fighting poverty with microcredit: Experience in Bangladesh". Oxford University Press.

Khandker, S.R., (2005). "Microfinance and poverty: Evidence using panel data from Bangladesh". The World Bank Economic Review, 19(2), pp.263-286.

Morduch, J., (1998). "Does microfinance really help the poor?: New evidence from flagship programs in Bangladesh". Research Program in Development Studies, Woodrow School of Public and International Affairs.

Moses, C., Agboola, F.A. and Faboyede, O.S., (2011). "Empowering Women Entrepreneurs in Ogun State through Microfinance: Challenges and Prospects. Journal of Research in National Development", 9(1b), pp.245-257.

Premaratne, S.P., (2009). "Accessibility and Affordability of Rural Microfinance Services in Sri Lanka". Sri Lanka Economic Journal, 10(2), pp.109-136.

Rathirani, Y. and Semasinghe, D.M., (2015). "Factors determining the women empowerment through microfinance: An empirical study in Sri Lanka". International Journal of Social, Behavioural, Educational, Economic, Business and Industrial Engineering, 9(5), pp.2328-2185.

Samer, S., Majid, I., Rizal, S., Muhamad, M.R. and Rashid, N., (2015). "The impact of microfinance on poverty reduction: Empirical evidence from Malaysian perspective". Procedia-Social and Behavioral Sciences, 195, pp.721-728.

Sayvaya, I. and Kyophilavong, P. (2015), "Does microfinance reduce poverty in Lao PDR?", International Journal of Development Issues, 14(3), 215-230.

"Statistical handbook", (2019), DS office Kopay.

Ullah, I. and Khan, M. (2017), "Microfinance as a tool for developing resilience in vulnerable communities", Journal of Enterprising Communities: People and Places in the Global Economy, 11(2), 237-257

Yogendrarajah, R. (September, 2014). " Impacts of Micro Finance Institutions: Issues and Concepts–An Empirical Study on Sri Lankan Context". In 1st International Conference, Centre of Excellence for Scientific & Research Journalism (COES & RJ-SG14/1).