

# Impact of Microfinance on the Livelihood of the Financially Underprivileged

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## ABSTRACT

Microfinance has emerged as an effective tool for poverty alleviation. Several microfinance programmes have significantly helped in the upliftment of the disadvantaged and vulnerable section of the society. This paper aims to evaluate the impact of one such microfinance programme on the lives of its beneficiaries. To assess the impact of the programme, primary data were collected from 100 beneficiaries of Nalbari district in Assam. Statistical methods have been used to determine the relationships between variables. Data has been summarised and presented in the form of tables and charts. Results have revealed an increase in the income, expenditure, savings and household assets. Results of the ANOVA showed that the income varies significantly across the different livelihood activities. In addition to this, it was found that savings of the beneficiaries are significantly dependent on their income.

**KEYWORDS:** Microfinance, Impact Assessment, Income, Savings, Assam

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## INTRODUCTION

In layman's term, microfinance is the provision of loans, savings, insurance and other financial products or services to the financially underprivileged who otherwise do not have access to these services. Microfinance has been defined differently by different authors. According to Otero (1999), 'microfinance is the provision of financial services to low-income poor and very poor self-employed people'. Schreiner and Colombet (2001) defined microfinance as 'the attempt to improve access to small deposits and small loans for poor households neglected by banks'. NABARD Task Force 2000 has defined microfinance as 'provision of thrift, credit and other financial services and products of very small amounts to the poor in rural, semi-urban or urban areas enabling them to raise their income levels and improve living standards'. Microfinance, thus, helps empower the poor and vulnerable section of the society and has emerged as a means of economic development.

India, since independence, has been trying to address the problems of the poor and the underprivileged. As a step to include the poor in the banking domain, NABARD in 1992 launched the SHG-Bank Linkage Programme. The SHG-Bank Linkage programme has expanded at a past pace and is the largest microfinance programme in India. Along these lines, a significant number of microfinance institutions or MFIs (which include NBFC MFIs, trusts, societies, etc.) have evolved which are extending financial and non-financial support to the financially underprivileged. The mainstreaming of microfinance is evident from the microfinance programmes initiated by new generation private sector banks like ICICI Bank, HDFC Bank, etc. (Satish, 2005). All these developments point to the growing realisation that the poor are bankable.

### HDFC Bank's Sustainable Livelihood Banking

In an attempt to reach the still unbanked and with a

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view to provide financial services to the poor, especially women, HDFC Bank has started the Sustainable Livelihood Initiative. The main aim of this initiative is to further its financial inclusion objective by empowering livelihoods in the under-banked and unbanked segments of the population. SLI provides a host of financial services like loans, savings account, micro-recurring deposits and micro-insurance products.

SLI has taken a holistic approach towards developing the rural poor by offering training and enhancing skills and credit counselling and financial literacy of the participants. Till 2012, SLI has taken its microfinance lending to more than 5174 villages in 20 states covering more than 20 lakh households under this initiative. The SLI programme in Assam has covered 5395 households (Table 1).

**Table 1: HDFC bank's SLI business performance report in Assam (quarter June'13)**

HDFC bank's sustainable livelihood initiative business performance – 2013–2014		
	June'13 quarter	Cumulative since inception
Loan disbursement (Rs. in Crs.)	1.23	4.24
Families included	929	5,395
Districts covered		3
Business location		3
Villages covered		51
No frill accounts	1,204	4,320

### Microfinance Impact Studies – A Review of Literature

Several studies have been conducted which confirm that microfinance programmes have significant impact on increasing income and reducing poverty. An improvement in the standard of living of the households has also been reported by studies. A number of studies also point out the fact that participation in the programme has led to greater levels of women empowerment. However, some impact studies have also shown that the microfinance programmes are not reaching the poorest of the poor. The loans are being utilised for non-income generating activities and women have limited control over group loans resulting in limited

women empowerment.

Hossain (1988) conducted an impact assessment study of Grameen Bank's microfinance programme in Bangladesh by comparing the participants and the non-participants in the programme. The study revealed a positive impact of the microfinance programme on the economic activities of members as compared to non-members. The average household income of the Grameen Bank members was 43% higher as compared to the eligible non-participants.

Morduch (1998), during 1991–1992, investigated a cross-sectional data of 1800 households in Bangladesh served by microfinance programmes of Grameen Bank, BRAC and BRDB. It was concluded that microcredit contributed to reducing household vulnerability. The household that participated in the survey had significantly lower variation in consumption and labour supply across seasons as compared to a control group of households in the area not served by any microfinance programme.

Puhazhendhi and Satyasai (2000) conducted a study commissioned by NABARD in 223 states spread over 11 states across India. The comparison of pre- and post-SHG situations revealed a 33% rise in the average annual income from pre- to post-SHG situation. It was also found that 40% of the incremental income was generated from non-farm activities.

Todd (2001) studied the impact of SHARE Microfinance Ltd., on its clients. Existing clients who had received assistance and new clients who were yet to receive any were compared. It was found that 76.8% of the clients had experienced a reduction in poverty which included 38.4% shifting from very poor to moderately poor category and 17.6% that had left poverty entirely. It was also found that most of the mature clients send their children to school and spend money for health purposes as compared to the new clients.

Singh (2001) conducted a study in Uttar Pradesh to find out the socio-economic impact of microfinance. The study showed an increase in the annual income by 28% and increase in the value of assets by 46%.

Gaonkar (2001) investigated the impact of SHGs on women in Goa. The study demonstrated that SHGs helped in improving their quality of life by increasing their income, savings, consumption expenditure, self-confidence, productive use of free time, getting opportunity to improve hidden talents and getting more importance in the family.

Kabeer and Noponen (2005) assessed the socio-economic impact of PRADAN's microfinance programme in Jharkhand. Members reported higher levels of savings and lower incidence of indebtedness. The study also revealed that members had better access to food, clean drinking water, as well as improved housing.

Yamuna (2007) assessed the status of SHG members in Coimbatore. The study reported an increase in the income level, savings, value of assets and household durables.

Borbora and Mahanta (2008) studied the role of credit in the generation of employment opportunities in Assam. It was found that 43% of the beneficiaries expanded their source of income and the microcredit-linked SHG programme significantly increased the employability and promoted the habit of savings.

Thus, most of the studies reveal a positive impact of microfinance programmes on the lives of the poor. It has therefore been regarded as a poverty alleviation tool and is considered to be helpful in attaining millennium development goals by reducing hunger and poverty and empowering women.

## PURPOSE OF THE STUDY

The present study is an attempt to assess the impact of microcredit programme of HDFC Bank's Sustainable Livelihood Initiative. The paper investigates the pre- and post-intervention scenarios by mainly concentrating on income, expenditure, savings and asset base of the participants.

In addition, the research study also tries to determine the income differences across the various livelihood activities. Furthermore, the paper tries to determine the dependency of savings on income.

## METHODOLOGY

To assess the impact of SLI microcredit, primary data was collected from 100 respondents in the Nalbari district of Assam through convenience sampling. Participants of the survey were beneficiaries of SLI programme of HDFC. The impact assessment was made by comparing the clients' present position with respect to their position before availing the microcredit facility.

The Analysis of Variance (ANOVA) technique was used to explore the income variation across groups. Correlation and regression have been used to determine the dependency of savings of the respondents on their income. Tabular and graphical methods have been utilised to represent the data.

## RESULTS

The study intended to capture the true picture of the impact of microfinance on the livelihood of the rural poor. The subsequent section discusses the results on the study. It was observed from the study that 98% of the respondents took assistance from HDFC Bank's SLI to expand their existing livelihoods and rest 2% to start a new business. It was also found that 100% of the respondents utilised the assistance in productive purposes.

### Change in Households' Income

Table 2 shows that on an average clients' income has increased by 35% after joining the SLI programme. The highest income change (Rs. 19743 per year) has been observed for handloom. The average annual income for the livestock sector has also increased significantly but the highest change recorded in the handloom sector implies that clients prefer investing the handloom sector as it generates more income as compared to rest of the sectors.

It is important to note that none of the respondents in the survey were involved in agriculture or cropping. The reason may be attributed to the fact that the majority of the respondents (94%) are landless having neither homestead land nor cultivable land. Moreover,

it can be inferred that agriculture or cropping required more drudgery as compared to other non-land-based activities like livestock, poultry and handloom.

**Table 2: Average annual income generation from different livelihood activities**

Source of income	Household's income (rupee/year)		Change in income	
	Before	After	Rupee	Per cent
Livestock	27046	42330	15284	57
Poultry	32500	47200	14700	45
Fishery	25783	36960	11177	43
Handloom	44071	63814	19743	45
Others	57573	61555	3982	7
Total	186973	251859	64886	35

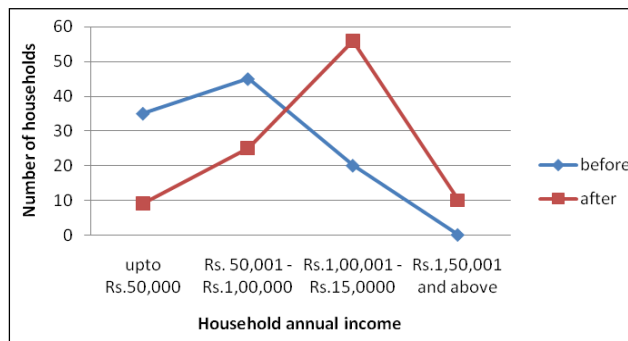
**Income Effect of SLI**

Figure 1 shows that the microcredit facility has resulted in increasing the households' yearly income. The microcredit has significantly alleviated their income base and most of them now earn more than Rs. 50,000 annually, which was not the case earlier.

**Income Variation Across Livelihoods**

To understand if there is any significant variation in the income of the beneficiaries with respect to their livelihoods, an analysis of variance (ANOVA) test was conducted. The respondents (or beneficiaries) were classified on the basis of their livelihood activity. Thus, the research hypothesis is as follows.

$H_{0a}$ : There is no difference of income across the groups based on their livelihood activity.



**Figure 1: Change in the households' yearly income**

$H_a$ : There is significant difference of income across the groups based on their livelihood activity.

Table 3 presents the output of the one-way ANOVA test and Table 4 presents the descriptive statistics and means of the income from various livelihood activities. It can be observed from Table 3 that *F*-value is 10.615 and *p*-value is 0.000. Therefore, there exists a significant difference in the income across groups based on their livelihood activities at the 0.01 significance level. Table 4 further shows that the means of income differ significantly across the 'others' category and livestock, poultry, handloom and fishery taken together.

**Change in Households' Expenditure**

Table 5 shows the expenditure of the households, further segregating the various sources. The household expenditure of the SLI clients on an average has increased by Rs. 11937 per annum. Expenditure on food shows the highest increase (Rs. 4344 per year) followed by education (Rs. 2785 per year) and repairs and maintenance (Rs. 2475 per year). The increase in repairs and maintenance (81%) is significant which may be attributed to the fact that poor always avoid these expenses due to shortage of money. But whenever they have ability they try to create better facilities or improve and repair the existing ones.

**Change in the Asset Base of the Households**

Clients' assets denote his or her land, house, furniture as well as the livestock and poultry. The assets possessed by the clients' before joining the SLI and after joining the SLI are presented in Table 6. The mean values indicate that there has been a significant increase in the poultry and livestock asset category. Further increase is noted in the number of equipment as well. However, there has been no increase in both homestead as well as cultivable land.

**Change in Households' Savings**

The annual savings of the households, on an average, increased by Rs. 1142 per annum. When asked about their savings options, the respondents preferred savings account (42%), insurance (32%) and fixed deposits

**Table 3: Output table of one-way ANOVA**

**ANOVA**

**Income**

	Sum of squares	df	Mean square	F	Sig.
Between groups	88474699.671	4	22118674.918	10.615	0.000
Within groups	197950756.329	95	2083692.172		
Total	286425456.000	99			

**Table 4: Descriptive statistics table for one-way ANOVA**

**Descriptives**

**income**

	N	Mean	Std. deviation	Std. error	95% Confidence interval for mean		Minimum	Maximum
					Lower bound	Upper bound		
Others	4	9000.0000	2000.00000	1000.00000	5817.5537	12182.4463	6000.00	10000.00
Poultry	10	5600.0000	875.59504	276.88746	4973.6370	6226.3630	5000.00	8000.00
Livestock	18	4833.3333	938.08315	221.10832	4366.8356	5299.8311	2500.00	6300.00
Handloom	45	5480.4444	1586.31356	236.47366	5003.8631	5957.0258	2800.00	9000.00
Fishery	23	4195.6522	1557.52667	324.76676	3522.1271	4869.1772	500.00	7000.00
Total	100	5221.2000	1700.93693	170.09369	4883.6972	5558.7028	500.00	10000.00

**Table 5: Annual expenditure of households**

Sources of expenditure	Household's expenditure (rupee/year)		Change in expenditure	
	Before	After	Rupee	Per cent (%)
Food	17232	21576	4344	25
Clothing	7356	8802	1446	20
Education	8430	11215	2785	33
Health	4950	4988	38	1
Repairs and maintenance	3040	5515	2475	81
Others	4925	5774	849	17
Total	45932	57869	11937	26

(10%). A significant portion of the respondents also maintained deposits with the local societies (14%) which form the other saving options.

**Association between Income and Savings**

To determine the association between savings of the beneficiaries with respect to their income, a test of correlation was performed. Therefore, the hypothesis is as follows.

$H_{0b}$ : There is no linear relationship between savings of beneficiaries and their income.

$H_b$ : There is a significant linear relationship between savings of beneficiaries and their income.

Table 7 presents the output of the correlation test. It can be observed from the table that savings and income are highly correlated (0.965) at the significance level 0.01.



**Table 6: Household assets owned by the households**

Household assets	Mean value before availing credit	Mean value after availing credit
Homestead land	0.09	0.09
Cultivable land	0	0
House	0.06	0.07
Equipment	0.52	0.86
Livestock	2.14	3.67
Poultry	3.51	5.68
Electronic goods	0	0.37

**Table 7: Correlation output**

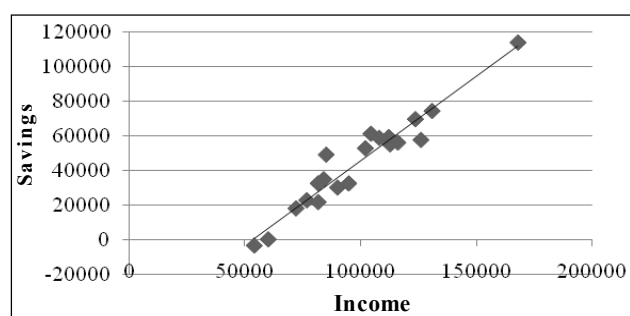
**Correlations**

		Income	Savings
Income	Pearson correlation	1	0.965*
	Sig. (2-tailed)		0.000
	N	100	100
Savings	Pearson correlation	0.965*	1
	Sig. (2-tailed)	0.000	
	N	100	100

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

To further test the dependency of savings on income, linear regression analysis was performed. To determine if the data are fit for linear regression both the variables were put in a scatter plot. Figure 2 shows the scatter plot of income and savings and it can be observed that a straight line can be fitted through the points.

Linear regression analysis was performed by selecting income as the independent variable and savings as the dependent variable. Result of the test is displayed in Tables 8–10.



**Figure 2: Scatter plot of income and savings**

**Table 8: Model summary of linear regression analysis**

**Model summary**

Model	R	R square	Adjusted R square	Std. error of the estimate
1	0.965 <sup>a</sup>	0.931	0.930	7066.38059

<sup>a</sup>Predictors: (constant), income

Table 8 shows that the value of  $R^2$  is 0.931 (greater than 0.7) indicating fitness of the model. Table 9 shows that the significance against the  $F$  value (1319.363) is 0.000. It is also seen that the value of constant (a) is -52197.679, whereas (b) is 0.978 and both are returning a significance level, against  $t$  test, of 0.000.

This implies that variation in savings of the beneficiaries can be explained with the knowledge of their income. The  $R^2$  value of 0.931 indicates that approximately 93% of variance in savings of the respondents can be accounted for by the knowledge of their income.

**CONCLUSION AND DISCUSSION**

Microfinance is now considered to be a well-established poverty alleviation programme. The respondents in the study reported an increase in the income, savings, expenditure and the asset base of their households. It was further evident from the study that the microcredit received under the SLI programme was utilised for income generating activities. Majority of the respondents in the study were landless and as a result all the respondents were engaged in non-land-based livelihood activities.

The study revealed that the income of the respondents has significant variation with respect to their livelihood activities. It was also established through the study that an increase in the income of the beneficiaries results in a significant increase in their savings. From this observation, it can be concluded that the respondents have developed the habit of savings. This is further evidenced from the fact that all the respondents have savings accounts and a significant number of respondents also preferred life insurance as a saving option.

Finally, it can be concluded that the microfinance programme has benefitted the clients immensely and has been successful in bringing positive changes in terms of their income, savings and asset base.

**Table 9: ANOVA table of linear regression analysis**  
ANOVA<sup>a</sup>

Model		Sum of squares	df	Mean square	F	Sig.
1	Regression	65880732131.723	1	65880732131.723	1319.363	0.000 <sup>b</sup>
	Residual	4893505992.277	98	49933734.615		
	Total	70774238124.000	99			

<sup>a</sup>Dependent variable: savings; <sup>b</sup>Predictors: (constant), income

**Table 10: Coefficients table of linear regression analysis**  
Coefficients<sup>a</sup>

Model		Unstandardised coefficients		Standardised coefficients Beta	T	Sig.
		B	Std. error			
1	(Constant)	-52197.679	2762.559		-18.895	0.000
	Income	0.978	0.027	0.965	36.323	0.000

<sup>a</sup>Dependent variable: savings.

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