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# The Impact of Microfinance on Saving Deposits-The Case of Mauritius

Medha Kisto

***Abstract:*** **The paper studies the impact of microfinance on the livelihood approach of poverty through the improvement in saving deposits of beneficiaries in a small island economy like Mauritius. Our survey covers a sample of 400 microfinance beneficiaries of different age groups and educational levels across the island. A probit regression model is used to examine the factors influencing saving deposits among the Mauritian beneficiaries of microfinance. Our results reveal that there is a strong correlation with increase in income and increase in savings. This positive impact has improved the lifestyle and living standard of the poor. We further observe that the different types of occupation, age, gender, marital status and secondary schooling of the respondents do not have a significant impact on saving deposits among the MFIs clients. Variables like family size, primary schooling, and loan amount have an impact on saving deposits. Hence, the overall analysis shows that microfinance activities have improved the living standard of the people in economic terms.**

***Keywords:*** **Microfinance, Standard of Living, Saving Deposits, Probit Regression Analysis, Mauritius**

## I. Introduction

Following the achievement in Bangladesh by the Grameen Bank, the importance of microfinance for reducing poverty has gained momentum in the policy agenda of numerous countries. Many governments and international organisations have been using microfinance as an effective instrument for poverty alleviation. With globalisation and the rapid development of many countries, there has been an alarming increase in poverty. Three billion of the world's population, being poor, live in dismay and pitiable conditions while the rich enjoy the benefits of globalisation. As the world moves forward into the 21st Century, the greatest challenge facing the developing countries is the fight against poverty and microfinance turned out to be an essential tool for poverty mitigation.

Microfinance encourages self-employment of the poor by providing them with loans and finance. Many Microfinance Institutions (MFIs) provide financial services while simultaneously working for social development in the areas in which they operate. Normally, the loans provided by MFIs have a longer timeframe for repayment compared to commercial banks. Innovations in microfinance schemes have led to a reduction in costs, thus reducing the risks of provision of loans to poor and isolated people as a result of which financial services were extended to those people who were previously excluded. Hence, microfinance will positively impact on the community by increasing income, consumption, saving, investment, employment opportunities, better access to nutrition, health care and education. Furthermore, it enhances forward and backward linkages, amongst others, and reduces child labour.

Despite providing necessary monetary support and increasing social awareness among their members, monetary institutions do not provide basic training for skills required for doing business. In addition, the demand for credit and savings services far exceeds current institutional capacity. Therefore, savings-led microfinance is based on long standing village traditions of saving and lending, of working for the common good, and of holding each other accountable. Such programs spread rapidly because beneficiaries of microfinance already understand the concept of microfinance as it help them to create a safe, convenient, and self-managed place to save. But, in many developing countries, lack of capital and savings make it difficult for most poor people to start their own business.

With the growing number of poor people in 1990s, Mauritius has embraced microfinance as a main tactical tool to combat poverty. Small loans, saving facilities and skills training were provided to the poor. Several schemes were made available, aiming to provide opportunities for self- reliance and to positively contribute to the households and the economy. But in 2012, the proportion of poor households below the relative poverty line was 9.8% and the proportion of poor households has increased from 23, 800 in 1996/97 to 33,800 in 2012. It is further estimated that 7,000 families spread in 229 pockets of poverty around the island live in absolute poverty with a monthly income of less than USD165. In addition, the income inequality is growing, confirmed by the increase in the Gini coefficient from 0.388 in 2006/07 to 0.413 in 2012.

Thus, the main objective of this study is to assess the livelihood approach of poverty among the beneficiaries of MFIs by focusing on their living standard. Thus, we use the impact on saving deposits to capture the livelihood approach of poverty in Mauritius and analysing its impact at household level. The paper uses primary data based on a sample of 400 microfinance beneficiaries across the island. The analysis of the results is done through Microsoft Office Excel 2007 and STATA 11.0. The remainder of the paper is organised into five sections. Section 2 reviews the literature and empirical work carried out in this field, whilst section 3 explores the concept of microfinance and poverty in Mauritius. Section 4 presents the survey design and the model for estimation, followed by the results of findings in section 5, and the final section concludes the paper.

## II. Literature Review

Microfinance is a form of financial development to alleviate poverty by providing financial services to the poor. Microfinance is an extension of micro-credit. The former is broader in perspective as it also includes transactional services, insurance and savings while the latter lends small amounts of money to the poor. However, Microfinance has different meanings to different people. Roth (2005), defines microfinance as the provision of financial products (including financial services such as credit, savings and insurance products) that target low-income groups, whilst Otero (1999) classifies microfinance as the supply of financial services to very poor self-employed person.

Microfinance cropped up with the assumption that micro-entrepreneurs and poorer clients can be ‘bankable’, in other words, they can benefit from financial services namely make savings, contract loan and reimburse both the principal and interest on time. The impact of microfinance schemes can be seen from three diverse but interrelated aspects: namely economic, socio-political/cultural and personal/psychological. This was illustrated by Rosenzweig and Wolpin (1993), who revealed that, in India, bullocks were being used as assets to generate income at a later stage and also to smooth consumption. In addition, lack of access to financial services could lead to adoption of very ineffective types and unfavourable savings methods which have major impacts on and in the perpetuation of poverty.

Therefore, microfinance can help to set up or expand family projects, potentially making the distinction between grinding poverty and economically protected life. These programmes support poor individuals or households to smooth their consumption during hardships. Additionally, access to credit may help them avoid distress through sales of assets, or replace productive assets destroyed by natural disasters (World Bank, 2002). Moreover, according to Ledgerwood (1999), microfinance institutions are diversifying their services, such as providing insurance facilities to cater for death or loss of assets in view of the growing demand from their clients. Likewise, Latif (2001) is in favour of microfinance services as saving-income ratio was significantly higher for the participants. Once clients take advantage of these services, they are able to smooth their consumption pattern, increase their expenditure on education, medical, and other social occasions. Thus, the following paragraph reviews the few empirical studies undertaken in this field.

Adjei *et al.* (2009) analyse the impact of microfinance on the poor women by using a cross-sectional data of 547 respondents in Sinapi Aba Trust of Ghana. They find that established clients own their savings account and subscribe to client welfare schemes which serve as insurance to reimburse their debts in case of illness or death. The clients started to save. Therefore, there was a positive impact on saving deposits. Moreover, using correlation analysis to study the impact of microfinance on the poor people in Bangladesh, Mohammad Khan and Mohammed Rahaman (2007) conclude that income and savings are positively correlated, meaning that when income increases, the client's ability to save also increases. Thus, this increase in savings has a positive impact on the financial situation of the family. In addition, Dan Matovu (2006) explores the impact of microfinance on rural women by using a sample size of 60 microfinance clients in Kayunga-central Uganda. He shows that female clients have experienced an increase in their incomes and saving pattern. They were no longer vulnerable, given that they could socialize, afford good diet, be able to deal with whatever crises, and most important of all, make savings to break the poverty trap. Property bought could be resold and savings used to expand the existing economic activities and/or rotate on other microfinance projects.

## III. Microfinance in Mauritius

Mauritius was able to realise an uninterrupted growth over the last thirty years and is ranked as an African middle-income state. Its Gross Domestic Product has more than doubled over the last ten years. Some sectors of the economy (particularly textile, manufacturing and sugar) are presently facing numerous challenges, due to both internal and external factors. In the drive for economic development, social provision in certain sectors has fallen behind, or policy has failed to keep abreast of changes in society. Hence, poverty alleviation has now become a government priority, as is greater emphasis on skills development, and on social issues.

There is no universal definition of poverty. The threshold of one U.S dollar per day established by the World Bank is certainly not applicable to Mauritius. Absolute poverty should be distinct from relative poverty. Absolute poverty reflects living conditions of families with incomes below a minimum threshold, while relative poverty reflects living conditions due to the life style of families. Thus, the concept of poverty cannot be based only on income measurement. There is fairly general consensus that other social factors need to be included in the definition. However, the Statistics Mauritius does report the incidence of lower expenditure households, establishing a cut-off point below which a household is considered as poor.

According to the latest household budget survey, the estimated poor people have increased from 92,700 in 1996/97 to 126,200 in 2012. In 2012, the poverty line for a 1-adult member household was Rs 5,660 per month, while for a family of two adults and two children was Rs 13,330 monthly. Overall, 10% of Mauritians are estimated to be living in poverty, which consists of 7,000 households spread over the 229 pockets of poverty. These unstable families are associated with other socials ills, namely drug addiction, prostitution, alcoholism, unwanted births and child delinquency which combined, have an increasingly negative effect on their level of poverty. Existing poverty alleviation programmes have been re-oriented to empower the poor with the necessary skills to move out from poverty. Different micro-credit schemes were provided by the Development Bank of Mauritius and National Empowerment Foundation. The delivery of financial services is viewed as an antipoverty tool of development programmes because it facilitates the creation of employment opportunities by increasing income and consumption while reducing poverty. Hence, microfinance might be an instrument to boost up the Mauritian economy.

## IV. Survey Analysis and Methodology

From the statistics, 60% of the respondents are women. Targeting women proved to be more beneficial than providing credit to men for two reasons. First, there is significant evidence that when a woman's business succeeds and she makes a profit, it goes to her family, while men typically give only 50-70% of their income to their families (Grasmuck and Espinal, 2000). Second, women are less risky. They tend to take out smaller loans than men, and invest the money in safe business ventures, usually close to home (Cheston and Kuhn, 2002). Furthermore, it can be noted that the majority of respondents are between the age bracket of 41 and 55 years. With the rising cost of living in Mauritius and the sudden closure of textile industries and sugar factories, 62% of the respondents said that they started their business as they lost their previous jobs in the primary sectors whilst 38% start their business with the aim to earn an income and to reduce the financial distress. All microfinance clients are educated, but the level of educational attainment for female entrepreneurs is higher compared to male entrepreneurs.

With reference to the pattern of start-up, 42% of respondents had no previous business experience before joining the MFIs. This indicates that MFIs are effectively contributing in the expansion of old businesses as well as the creation of new small-scale ones. Based on the survey data, 65% of the targeted persons already knew about MFIs. They had already taken advantage of the schemes, operating mainly in handicraft businesses. They had also participated in different forums and exposés organised by SMEDA. Furthermore, while 77% of the beneficiaries learnt about microfinance through newspapers, radio and TV, 23% were apprised of it through mouth-to-mouth marketing. Very few people had recourse to pamphlets and other publications.

Looking at the scales of loans granted to individuals, we concluded that the majority of loans granted are around below Rs. 100,000, which implies that MFIs basically emphasizes on micro-credit. Few respondents were allocated loan facilities above Rs. 250,000. Indirectly, the result demonstrates that the lesser the loan offered by MFIs, the lesser is the capital to start a medium-scale business. Moreover, 59% of the surveyed people find the loan amount to be quite sufficient as they were able to meet the needs of their family compared to the 41% who find it insufficient. Furthermore, 43% of individuals save at financial institution, followed by preference to save at home, in informal sector and in-kind forms. Saving at home supports the fact that clients find it easier to have money at home which can be used easily in emergency. Besides, they think that they are taxed when they possess a saving deposit account. Moreover, 80% of the female clients said that the MFIs are far away from their residence, and so, they prefer the informal forms of savings constituted of savings groups, friends and relatives. Lastly, 12% of the respondents prefer saving in-kind, which is convenient and makes good business in the sense that if the items chosen provide higher return than any savings product offered by a financial institution, they offer an average rate of interest on a one-year time deposit.

Moreover, people take loans to do business or invest in other activities with a view to change their economic conditions. They struggle to save for the future with a view to improving their financial status and living standard. In this context, by using the Pearson correlation test, a correlation test was carried out to find the relationship between increase of income and increase of saving. The null hypothesis says that there is no relationship between the increase in income and that of savings. In contrast, the alternative hypothesis is that there is a relationship between increase of income and that of savings. The results are shown in table 1.

**Table 1: Correlation Test between the Income and Saving**

| | **Income** | **Savings** |
|---|---|---|
| **Income** | 1 | 0.7902** |
| **Savings** | 0.7902** | 1 |

***** Correlation is significant at the 0.01 level (1- tailed)***
***Source: Author's Computation***

The above table demonstrates that our null hypothesis, which is statistically significant, is rejected. Thus, these two variables are strongly positive correlated, which implies that when income increases, the client's ability for savings also increases. This increase in saving leads to a positive impact on the financial situation of the family. Henceforth, increase in income and savings leads to economic empowerment as income, savings and employment opportunities are interrelated.

To capture the livelihood approach of poverty, this paper uses an extended framework of Adjei *et al*. (2009) and other authors to build up a probit model to examine the factors affecting saving deposits among microfinance beneficiaries in Mauritius. To smooth their household budget and deal with emergencies and other unforeseen requirements of cash, Rutherford (1995) finds that poor people need to benefit from financial products which comprise of loans, insurance and savings. However, the challenge is to devise the right services for the right group of poor person (Sharif, 1997). Access to savings services can protect low-income households by making them less vulnerable and giving them the opportunity for a positive real return. It helps in consumption smoothing during economic blows and provides an occasion to accumulate large sums of money for future investment and household expenditure. Since saving deposits is a product of MFIs in Mauritius, this paper will use participants' savings deposit for estimating the model. Thus, the estimation model will be as follows:

***Impact on Savings Deposits*** $= \beta_0 + \beta_1$ ***AGE*** $+ \beta_2$ ***AGE***$^2 + \beta_3$ ***GENDER*** $+ \beta_4$ ***Marital Status*** $+ \beta_5$ ***Head of Family*** $+ \beta_6$ ***Family Size*** $+ \beta_7$ ***Education*** $+ \beta_8$ ***Region*** $+ \beta_9$ ***Sector*** $+ \beta_{10}$ ***Form of business*** $+ \beta_{11}$ ***Number of year being MFIs beneficiaries*** $+ \beta_{12}$ ***Monthly Income*** $+ \beta_{13}$ ***Loan amount*** $+ U_0$

Where Impact on Savings Deposits is a dummy variable taking a value of 1 if there has been an improvement in savings deposits and 0 otherwise, AGE is the age of the beneficiaries of microfinance. Marital status indicates if the person is married in which case dummy being 1 or 0 otherwise, 1 if the beneficiary is the head of the family and 0 otherwise. Family Size is a continuous variable. A series of 4 dummy variables is for the education level of the respondent: primary, secondary, tertiary and vocational. Region denotes where the respondent is presently living, dummy being 1 if he lives in an urban region and 0 if he lives in a rural region. Sector is the sector where the respondent operates and includes a series of 7 dummy variables: trade & commerce, wood & furniture, garments, handicraft, foods & beverages, jewellery, professional, vocational and occupation. The number of years the respondent benefited from microfinance services is a continuous variable. The monthly income of the beneficiaries has a series of 4 dummies while the loan amount of beneficiaries has 3 dummies and finally U is the error term.

## V. Findings

Table 2 reports the coefficient, robust standard errors and the marginal effects of probit model.

**Table 2: Probit Regression Results**

| | | | **Number of observations: 400** |
|---|---|---|---|
| **Variables** | **Coefficient** | **Robust Standard Error** | **Marginal Effects** |
| **Age** | -.0330 | .0136 | -.0128 |
| **Age$^2$** | .0005 | .0002 | .0002 |
| **Gender** | .1551 | .0578 | .0605 |
| **Marital Status** | -.0847 | .0681 | -.0330 |
| **Head Of Family** | -.0565 | .0671 | -.0220 |
| **Family Size** | .1042** | .0199 | .0405 |
| **Primary** | -.5396* | .0736 | -.2019 |
| **Secondary** | -.0962 | .0712 | -.0374 |
| **Region** | .1539 | .0668 | .0603 |
| **Sector- Trade & Commerce** | .5395** | .1053 | .2126 |
| **Sector- Garments** | .1738 | .0924 | .0681 |
| **Sector- Handicraft** | -.0344 | .0928 | -.0133 |
| **Sector- Foods &Beverages** | .1485 | .0936 | .0581 |
| **Form Of Business** | .0823 | .07910 | .0320 |
| **Number Of Years Being MFIs Beneficiaries** | -.0884** | .01581 | -.0344 |
| **Monthly Income- Less Than Rs. 5,000** | -.2554 | .0984 | -.0976 |
| **Monthly Income- Rs.5,000- Rs.7,500** | -.0880 | .0979 | -.0341 |
| **Monthly Income- Rs. 7,500- Rs. 9,000** | -.1835 | .0979 | -.0706 |
| **Loan Amount- Rs. 100,000- Rs. 250,000** | -.3929** | .0722 | -.1498 |
| **Loan Amount- Above Rs. 250,000** | -.3954** | .0754 | -.1513 |

| | | | |
|---|---|---|---|
| **Constant** | .8027 | | |
| **Wald Chi- Square** | 45.91*** | | |
| **Pseudo $R^2$** | 0.1029 | | |
| **Log Likelihood** | -244.10457 | | |

***(Note: *significant at 10%, **significant at 5%, ***significant at 1%)***
***Source: Author's Computation***

The findings of the probit model is supported by the low R-squared, which captures only the livelihood approach of poverty, implying that 10% of the variability on savings deposits is explained by the independent variables in the models. The socio demographic features show no association between age, age$^2$, gender, marital status, head of family, secondary education and savings. These findings show that Mauritians tend to save in an earlier stage, which confirms the Life Cycle Hypothesis Theory, as most of the respondents were in the range of 50s. Further, the region where the beneficiaries live also does not affect saving deposits.

However, the study reveals that the family size have a positive impact on savings. These results reflect the people's perspective from the rising cost of living in Mauritius. Mostly, the FHHs tend to save more to meet their household expenses. In addition, the majority of the beneficiaries care for their future, since they prefer to save excess money to smooth consumption and for general emergencies. Further, beneficiaries having attained primary education contribute negatively to savings deposits, though being aware of the facilities offered. Such results are inconsistent with the findings of Adjei *et al.* (2009).

Regarding the sector dummies, only the trade and commerce sector proves to contribute positively to saving deposits. Traders having benefited from grants and subsidies tend to make more profits and thus increase on savings and decrease the level of poverty. Furthermore, there is no evidence that there is a relationship between monthly income and saving deposits among the clients of microfinance. But the loan amount with the bracket 'Rs. 100,000- Rs.250,000' and 'above Rs.250,000' have a negative impact on saving deposits. This supports the fact that beneficiaries having contracted a loan tend to focus on the repayment, leading to a fall in savings deposits. These findings opposed the work of Adjei *et al.* (2009) and Adeyemi (2008).

But, having a longstanding relationship with MFIs does not necessarily improve savings deposits. MFIs beneficiaries argue that they find it difficult to save as they consume from their past savings. With persistent inflation in Mauritius, poor people are becoming relatively poorer. The inflation offsets the gains that they achieve in their tiny businesses. In addition, they have to foot additional fees to the banks which again trapped them in the vicious circle of poverty, thus leading to a serious problem of social exclusion.

## VI. Conclusion

Microfinance is considered to be a valuable tool for the alleviation of poverty around the globe. In the same line, the goal of this paper was to examine the impact of microfinance on livelihood approach of poverty by using improvement in saving deposits of beneficiaries. This study uses probit model to examine the factors influencing determinants of the saving deposits among the beneficiaries of microfinance in a small island economy like Mauritius.

From our survey of 400 microfinance beneficiaries, we observe no relationship between monthly income and saving deposits among the clients of microfinance. It can be noted that the different types of occupation, age, gender, marital status, and secondary schooling of the respondents do not have a significant impact on saving deposits among the MFIs clients. Variables like family size, primary schooling, and loan amount do have an impact on saving deposits. Hence, the overall analysis shows an improvement on the living standard of the microfinance beneficiaries in Mauritius.

Stakeholders should be involved in decision-making. Managerial skills should be enhanced and market research should be encouraged to better understand client preferences and the constraints that prevent the poor from taking advantage of financial services like literacy and titles. The government should provide regional financial services and targeted investment for poverty alleviation in Mauritius. It should strive to improve the standard of living of the people and encourage them to contribute to the economic growth and development of Mauritius.

## V. References

1. Adeyemi, K. S., (2008). Institutional Reforms For Efficient Microfinance Operations in Nigeria. Central Bank of Nigeria Bullion, 32(1), 26-34
2. Adjei, J. K., Arun, T. G., and Hossain, F., (2009). The Role Of Microfinance In Asset-Building And Poverty Reduction. BWPI Working Paper Series, Brooks World Poverty Institute, University of Manchester.
3. Barnes, C., (1996). Assets and the Impact of Microenterprise Interventions: A Framework for Analysis. Washington, DC: Assessing Impact of Microenterprise Services.
4. Cheston, S., and Kuhn, L., (2002). Empowering Women through Microfinance. IN Sam Daley-Harris, Ed. Microcredit Summit Campaign. Pathways Out of Poverty. Kumarian: Bloomfield, CT.
5. Dan, Matovu., (2006). Microfinance and Poverty Alleviation Uganda -A Case Study Of Uganda Finance Trust. Master Thesis. Africa and International Development.
6. Grasmuck, S., and Espinal, R., (2000). Market Success or Female Autonomy? Income, Ideology, and Empowerment among Microentrepreneurs in the Dominican Republic. Gender and Society, 14(2), pp. 231- 255.
7. Khandker, S. R., (2000). Savings, Informal Borrowing and Microfinance. *Bangladesh Development Studies*, 26 (2 & 3)
8. Khandker, S. R., (2001). Does Microfinance Really Benefit The Poor- Evidence from Bangladesh, Asia and Pacific Forum on Poverty.
9. Kiiru,J. M., Mburu, J., and Flohberg, K., (2007). Does Participant In Microfinance Program Improve Household Incomes: Empirical Evidence from Makueni District, Kenya. Centre for development Research, Bonn University, 405-410.
10. Ledgerwood, J., (1999). Microfinance Handbook: An Institutional and Financial Perspective. Sustainable Banking with the Poor. The World Bank. Washington D.C.
11. Mohammad ,A. Khan., and Mohammed, A. Rahaman., (2007). Impact of Microfinance on Living Standards, Empowerment and Poverty Alleviation of Poor People: A Case Study on Microfinance in the Chittagong District of Bangladesh. Master Thesis. Umeå School of Business (USBE).
12. Otero, M., and Rhyne. E., (1999). The New World of Microenterprise Finance: Building Healthy Financial Institutions for the Poor. West Hartford, Connecticut: Kumarian Press.
13. Poverty Analysis Report various issues [Online], Available at: <.http://www.gov.mu/ portal/goc/ cso/report/natacc/ poverty/poverty.pdf > [Accessed 27 December 2012].
14. Rosenzweig, M. R., (1993).Women, insurance capital, and economic development in rural India. Journal of Human Resources, 28(4), pp.735-758.
15. Rosenzweig, M. R., Wolpin., and Kenneth, I., (1993).Credit market constraints, consumption smoothing, and the accumulation of durable production assets in low-income countries: Investments in bullocks in India. Journal of Political Economy, 101(2), pp. 223-244.
16. Roth, J., (2005). Current Status and Issues in Microinsurance in Asia, Presentation at 'Expanding the Frontiers of Commercial Microfinance', Asia Development Bank.
17. Rutherford, S., (1995). ASA - The Biography of an NGO, Empowerment and Credit in Rural Bangladesh, ASA, Dhaka.
18. Sharif, I., (1997). Poverty and Finance in Bangladesh: A new Policy Agenda' in G.Wood, and I. Sharif, (eds.), Who Needs Credit? Poverty and Finance in Bangladesh. London: Zed.

19. Statistics Mauritius, Household Budget Survey- Main Results & Updated weights for the Consumer Price Index, Republic of Mauritius [online], Available at: <http://statsmauritius.gov.mu/English/ StatsbySubj/ Pages/ HouseholdBudget.aspx> [Accessed 17 April 2014].
20. Tiruneh, A., (2006). Impact of Microfinance on Poverty Reduction in Ethiopia: The Cases of Three Branches of Specialized Financial and Promotional Institution (SFPI), Thesis. Addis Ababa University.
21. World Poverty Manual [Online], Available at <http://siteresources.worldbank.org/ PGLP/ Resources/ Poverty Manual.pdf> [Accessed 21 December 2012].