Analysis of Monetary approach of Poverty Reduction among Mauritian Beneficiaries of Microfinance

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Abstract

The paper aims to assess the impact of microfinance on poverty reduction in Mauritius. A sample of 384 microfinance beneficiaries, of different age groups and educational levels in both urban and rural areas across the country, was chosen. We observe that the poor have smoothed their income in Mauritius. Our results also reveal that the Mauritian Microfinance Scheme contributes to the eradication of poverty and uplift the standard of living of the surveyed households. Further, we note that Mauritian beneficiaries of microfinance lack appropriate skills to engage in profitable business activities. This may indicate that financial services alone could not be sufficient enough to raise the living conditions of the poor.

Keywords: Microfinance, Poverty Reduction, Probit, Factor Analysis
JEL classification: G21, I32, C35

1. Introduction

Today microfinance has become an important device for poverty mitigation in developing countries where lack of savings and capital make it difficult for many poor people to engage in self-employment and undertake productive employment-generating activities. Formal credit markets tend to fail due to the collateral requirements that the poor cannot satisfy and to the belief that the incentives to repay for the poor are limited given the associated asymmetric information and high monitoring costs of micro individual borrowers (Hulme and Mosely, 1996)

While microfinance alone does not improve roads, housing, water supply, education or health services, it can play an important role in making these and other sustainable contributions to the community. This, in turn, can have a multiplier effect on people's standard of living. Therefore, microfinance and poverty are strongly related but it is not a panacea for poverty but rather an important tool in its eradication. Poverty is a multidimensional problem, embedded in a complex and interconnected political, economic, cultural, and ecological system. Thus, solutions are as multifaceted as the causes. Such a system perspective is critical in creating an enabling environment for sustainable poverty eradication.

In Mauritius a household is considered poor if its income falls below the half median income. According to the ‘Poverty Analysis 2006/07’¹, household income per adult is considered to be ‘poor’ if his income falls short Rs 2, 004 in 1996/97, Rs 2, 804 in 2001/02 and Rs 3, 821 in 2006/07. In addition the estimated number of poor households has increased from 23, 800 in 1996/97 to 26, 400 in 2006/07. Furthermore, in 2010 the Trust Fund reveals that 7, 000 Mauritian families earning less than Rs 4, 000 are facing severe housing problems and these households are spread over 229 pockets of poverty.

Hence, in the budget 2009, the Mauritian government set up the “Eradication of Absolute Poverty Programme” with the main aim to reduce the unemployment rate resulting from the global crisis through empowerment and the protection of vulnerable groups. It also provides support to 5,000 children not attending pre-school and some 7,000 families living in absolute poverty. Existing poverty alleviation programmes have been re-oriented to empower the poor with the necessary skills to move out from poverty. In addition, the government has imposed on profitable firms to spend at least 2% of their profits on corporate social responsibility activities or otherwise transfer the funds for the use in the fight of poverty. Additionally, the Ministry of Social Integration and Economic Empowerment was set up to address the problem of poverty.

Despite several attempts to minimize the risk associated with poverty in Mauritius, there still exists a minority of very poor households around the island especially in the rural areas. Thus, microfinance was devised as a solution to alleviate those risks in late 1990’s. It has, since, developed into a sustainable instrument and has further grown into commercial and banking products. Currently there is a wide range of institutions that are involved in providing microfinance services to low income groups, but their impact on reducing poverty or improving household welfare is not very clear. Hence this is an attempt to fill some of these gaps in literature related to microfinance by analysing its outreach and impact at household level.

The main focus of this study is on monetary approach where principally, income and consumption are affected. The objective of the study is to assess the impact of microfinance on poverty in Mauritius by focusing on living standard of beneficiaries of Microfinance Institution (MFIs). Besides,

¹ Publication of the Statistics Mauritius
the contributions of the MFIs will be analyses to indicate if the monetary approach of poverty has changed with the help of microfinance. A sample of 384 beneficiaries of microfinance across the country was surveyed. Probit regression method to survey data is used. Finally a factor analysis is carried out to determine which poverty dimension is mostly affected by the microfinance scheme.

The paper is structured as follows: section 2 overviews the literature on microfinance. Section 3 reviews the concept of microfinance and poverty in Mauritius. Section 4 sets out the data and methodology used. Section 5 discusses the results and we finally conclude in section 6.

2. Literature Review

Microfinance is to the provision of loans, savings and other basic monetary services to the poor. With innovative means and development, microfinance has been adopted and practiced in most developing countries where it has gained unbelievable success (Integrated Microfinance Bank, 2007).

As opposed to formal banks, microfinance involves short term savings and lending conveniences bearing low interest rates and repayment facilities with the aim to cover the delivery costs only. The costs of capital are recouped upon maturity while whole administrative and transactions cost are ignored. Counselling is done through sensitisation and direct marketing in view of low costs involved as these institutions target mostly low or no profit at all. Their main objective is to improve the living conditions of those being afflicted by ‘the curse of poverty’.

Views and opinions on microfinance differ. For instance, Otero (1999) classifies microfinance as the supply of financial services to very poor self-employed people whilst Ledgerwood (1999) documents that it is a sustainable poverty solution and it includes savings, credit and other monetary services such as insurance and payment facilities. Schreiner and Colombet (2001) attempt to phase out poverty through microfinance because of its easy access to small deposits and loans for deprived family who were being neglected by formal banks and financial institutions, mostly because of their poor credit worthiness. The impact of microfinance initiatives can be seen from three different but interrelated aspects namely economic, socio-political or cultural and personal/psychological.

On the other hand, poverty is a complex issue which has always existed at different levels of society and in various forms across the world. For, Hulme and Mosley (1996) microfinance is not a panacea for poverty alleviation as in some cases the poorest people were made worse off by microfinance institutions. Rogaly (1996), however, points out that microfinance institutions encourage single sector approach to distribute resources to fight poverty but it proves to be disadvantageous to poor people as there was inadequate learning and change taking place. At times they even failed to reach the poor. Women were encouraged to be independent on their husbands but they fail as MFIs was unable to provide additional services which were desperately required.

Moreover, the literature on poverty is divided into two categories (Jean, Salimata, and Bocar, 2009):-

- The monetary approach, supported by utilitarian approach, places the conceptualization of wellbeing in the utility space where satisfaction determines the level of welfare. But since utility is not directly observable, resources like income have been used to measure welfare. The main assumption made by this approach is that consumers’ objective is to maximize their utility and that the subsequent welfare can be measured by their total consumption. This approach arises out of an essentially uni-dimensional welfare concept which is reduced to a simple lack of financial resources necessary for attaining a minimum quality of life: and
- The non-monetary approach which consists of the faith-based, livelihood and capability approach.

Moreover these approaches can be broken further. The monetary approach includes all income in money metric and in practice omits social goods whereas; the faith-based approach consists of religious faith. The religious attitude is always based on the belief that there exists an agreement, transcendentinal, moral law and that we human beings are surrendered to its commands. The livelihood approach comprises the capabilities, assets and activities required for a decent living. Finally, the capabilities approach includes not only essential needs such as nutrition and health but as well as further compound social ones, such as taking part in the society and achieving self-respect. Health and education are both functioning accomplishments in themselves as well as capabilities that allow people to get other valued and crucial performance.

Thus, to address the dramatic effects resulting from poverty, diverse poverty reduction strategies and instruments have been developed in order to improve the poor’s standard of living and help them sever the vicious cycle of poverty.

Microfinance can make a contribution to eradicate poverty. It has evolved as an economic development approach for the benefit of low-income groups. It recommends the cutback of poverty by increasing labour efficiency, through interventions of a general nature. These programs are helpful techniques to offer low cost financial services to poor persons and families as supported by Miller and Martinez (2006); Stephens and Tazi (2006). Once they benefit from microfinance services, they will be able to earn more, save more and ultimately smooth consumption. In turn they will enjoy a good health conditions among family members. Therefore this is in line with Hulme and Mosely (1996) and Khandher (2003) who claim that microcredit has positive impact on the poor borrower’s income.

Most of these studies were carried out in least developed countries where poverty is a root problem. These findings prove that microfinance works to bring sustained aid to those suffering from hardship cases.
Adjei et al. (2009) analyse the impact on rural and urban poor, especially women, by supporting them with small loans to expand their businesses to generate income and to build up their asset base by using a cross-sectional data of 547 respondents in Sinapi Aba Trust of Ghana. They show that established clients were able to own savings deposits and subscribe to a client welfare scheme which serves as insurance to pay off debts in times of illness or death. They were in a better position to contribute towards the education of their children and payment of healthcare for members of their households as well as towards the purchase of household durables. Therefore, there was a positive impact on their income. Along the same line, Aleskerov (2007) obtain similar results for 60 regions of Azerbaijan.

Rahman and Fariduddin (2010) analyze the impact of rural development schemes on rural poor’s livelihood, particularly on income in Bangladesh. They show that households’ income, productivity of crops and livestock, expenditure and employment increase significantly due to the influence of invested money and clients’ socio-economic factors like age, number of family members in farming, total land size and clients’ ethics and morals. Waheed (2009) investigates the impact of micro-credit on the well-being of the rural part of Bangladesh using six years (1999-2004) secondary data and primary data in 2005. His findings reveal that micro-credit was largely availed by the poor borrowers and non-poor and education and income significantly improve. Moreover, Kiuru et al. (2007) use cross sectional and pooled data analysis of the impact of microfinance on household income covering the south western part of Makueni district in Kenya. They show that there is a weak positive significance of microfinance on household income, education and household head.

Overall, the evidence is in favour of microfinance as being a tool to increase household income, smooth consumption, and enable the poor sustain to gain over time. Microfinance is an effective method to alleviate poverty as it enables many impoverished families to earn income to rise above the poverty line. It impacts on more than just household income, namely saving deposits, health and literacy level of the poor. This study attempts to fill the gap by analyzing the impact microfinance on poverty and the welfare of households in Mauritius.

### 3. Microfinance in Mauritius

Mauritius, though classified as an upper middle-income country following its good economic performance, still has its quota of poor, where poverty means more than going to bed hungry. Since the international poverty line does not give a clear indication of the level of poverty for Mauritius, the government has adopted an income-based poverty line, which is the relative poverty line and is set at half the median monthly household income. Table 1 below summarises main poverty indicators in Mauritius from 1996-2007.

<table>
<thead>
<tr>
<th>Table 1: Selected indicators on poverty, 1996/97, 2001/02 and 2006/07</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated number of poor households</td>
</tr>
<tr>
<td>Proportion of poor households (%)</td>
</tr>
<tr>
<td>Estimated number of poor persons (%)</td>
</tr>
<tr>
<td>Proportion of poor persons (%)</td>
</tr>
</tbody>
</table>


From the household budget survey, the proportion of poor households living below the relative poverty line has increased from 7.7% in 2001/02 to 8% in 2006/07 and that of poor persons rose from 7.8% in 2001/02 to 8.7% in 2006/07, which means an increase from 23,800 to 26,900 persons.

In Mauritius, the well-being of a household is principally determined by the socioeconomic and gender characteristics of its head, such as the person’s education’s attainment and economic activity.

<table>
<thead>
<tr>
<th>Table 2: Percentage of Households in Poverty by sex of Head, 1996/97, 2001/02 and 2006/07</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex Of Head</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Both Sexes</td>
</tr>
</tbody>
</table>


The analysis of Table 2 points out that female-headed household is more likely to be poor than those headed by male. Notwithstanding the fact that over 50% of the female headed poor households were single parent ones with unmarried children, their poverty situation significantly improved from 1996/97 to 2006/07, while there was only a slight increase in those headed by male. Further, the poorer households were those headed by persons who never attended school as illustrated in table 3.

<table>
<thead>
<tr>
<th>Table 3: Percentage of households in poverty by school attendance of head, 1996/97, 2001/02 &amp; 2006/07</th>
</tr>
</thead>
<tbody>
<tr>
<td>School Attendance Of Head</td>
</tr>
<tr>
<td>Past</td>
</tr>
<tr>
<td>Never</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>


It is noted that for all three periods, the poverty incidence of illiterate households doubled that of those who attended school in the past. However, a decline is noted from 1996/1997 to 2006/07 among those who never attended school.
Overall, 8% of Mauritians are estimated to be living in poverty. As the country moves towards intensive capital development and high productivity, there is a decline in the low skill employment opportunities resulting in those with limited skills being increasingly marginalized in the labour market. Threats of poverty are substantially higher in female-headed households, those with primary level education only or those who are illiterate.

Microfinance services were available since the late 1990 in Mauritius. The Ministry of Gender Equality, Child Development and Family Welfare worked in close collaboration with DBM to come up with several types of schemes namely the Micro-credit Financing scheme through International Fund for Agricultural Development (IFAD), Micro-credit Financing Scheme through Trust Fund for Social Integration of Vulnerable Groups, Micro-credit Financing scheme through A Nou Diboute Ensam and the Booster loan scheme. Working sessions were also held with directors of the Grameen Bank and international consultants, IFAD, United Nations Development Program and Economic Commission for Africa.

Moreover, the National Empowerment Foundation (NEF) which was set up in July 2008 as an institutional framework now regroups under one roof the different agencies involved in empowerment and in the fight against poverty. Furthermore, millions of Rupees have been allotted to the NEF for the funding of activities such as training programmes, integrated social development, circular migration, technical assistance to Small and Medium Enterprises (SMEs), placement and financial assistance. Furthermore, the NEF provides other types of schemes such as the quasi equity financial scheme, which also provides financial help to SMEs though it is not a micro-credit scheme.

As such, microfinance might be a tool to reboot the Mauritian economy. It has provided small business people with solutions, enabling them to borrow capital to purchase fruits, livestock and materials, without being exposed to unscrupulous or violent lenders.

4. Survey Analysis and Methodology

A sample of a 384 beneficiaries, out of approximately 3800 targeted, was randomly chosen to fill the questionnaires. This was distributed on a pro-rata and gender basis across the different districts.

4.1 Data Analysis

From the survey, 61% of the beneficiaries of microfinance are female. There are good reasons to target women by MFIIs, gender discrimination being one of the major causes of poverty, slower economic growth, weaker governance and lower standards of living. Also women are poorer and more disadvantaged than men. As such, this substantiates the point made out by Zaman (2001) that microfinance mainly focuses on women and break down gender inequalities.

Figure 1: Gender

Source: Survey Data, 2011

It is observed from Figure 1 that most of the respondents are aged between 41 and 55 years, 8% of those surveyed are aged above 55 years. This might be explained by the fact that unskilled people had no alternative than to start their own business after the closure of textile industries and sugar factories as these sectors knew a disappearance of the open competition by the sugar protocol and the multi fibre agreement. Both sectors went through a phased downsizing which drastically reduced its workforce from 34, 105 in 1996 to 10 499 in 2010 in the sugar sector and 72, 666 in 1996 to 56 624 in the textile industry.

Figure 2: Age Group

Source: Survey Data, 2011

From this survey, respondents having attained higher education are likely to have fewer children, which meant lesser expenses as shown below:

Table 5: Cross tabulation: Educational Level* Number of Children

<table>
<thead>
<tr>
<th>Educational Level</th>
<th>Number of Children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>11/15/42/44/112</td>
</tr>
<tr>
<td>Form 1-4</td>
<td>16/38/44/40/138</td>
</tr>
<tr>
<td>SC</td>
<td>31/12/31/36/110</td>
</tr>
<tr>
<td>HSC</td>
<td>5/9/4/6/24</td>
</tr>
<tr>
<td>Grand Total</td>
<td>63/74/12/126/384</td>
</tr>
</tbody>
</table>

Source: Survey Data, 2011

In addition, most female–headed households (FHHs) have more than two children while male-headed ones have only one. This implies that in FHHs, women, apart from having no support of their partner, have more children to look after and hence faced with higher dependency ratio which they are further pushed into the vicious cycle of poverty.

Source: Survey Data, 2011

Based on the survey data women operate mostly in garment sector while men are mostly farmers. The very few of them who were aware of microfinance were already involved in their small businesses.

Furthermore, in figure 8, we examine the income levels of the beneficiaries.

Source: Survey Data, 2011

Figure 4a: Female Monthly Income

Figure 4b: Male Monthly Income

From the above diagram 41% of the female beneficiaries earn around Rs 5,000-7,500 while around 60% of the male are in the income bracket of Rs less than 5,000. Only 5% of the female and 2% of the male beneficiaries earn more than Rs 9,000 as they were in business since years ago. This indicates that women exert much effort and struggle to meet the needs of their family. Furthermore, most of the female are in the age bracket of 41-55, they confirms the fact that they benefited from training provided in village halls and this contributed largely in their business.

Figure 5: Source of Initial Capital

Source: Survey Data, 2011

Table 6: Cross-tabulation purpose of Loans*Loan amount

Being given that microfinance caters mostly for microcredit schemes and provides smaller loans ranging from Rs. 25,000 to Rs. 50,000, beneficiaries could not avail themselves of this opportunity to build houses. 62.50% of the few recipients who benefitted from loans above Rs. 100,000 set up their small businesses whereas 30.73% of them consolidated their existing ones. Very few have used the money for education and medical care.
Further in figure 6, we note that 25% of the beneficiaries describe their business as ‘much worst now’, the more so as they are facing marketing and managerial problems leading to big losses.

**Figure 6: Description of business**

- little better 18%
- little worst 21%
- Much better 19%
- much worst 17%
- Same 25%

Source: Survey Data, 2011

4.2 Methodology
The paper uses an extended framework of Khandker (1998) and other authors to build up a logistic regression analysis. Since in Mauritius, we do not have a poverty line, my assumption is that those people earning less than Rs. 5,000 monthly will be considered as poor. Improvement in income is considered as dependent variable. Hence the estimation model is as follows.

\[ \text{ImplInc} = i_0 + i_1 \text{AGE} + i_2 \text{GENDER} + i_3 \text{MS} + i_4 \text{HOF} + i_5 \text{EDU} + i_6 \text{REGN} + i_7 \text{SECT} + i_8 \text{FOB} + i_9 \text{NUMMFI} + i_{10} \text{BUSEXP} + i_{11} \text{LAMT} + u_i \]

where ImplInc is a dummy variable taking a value of 1 if there has been an improvement in income and 0 otherwise. AGE is the age of the beneficiaries of microfinance. MS indicates if the person is married in which case dummy being one or otherwise, HOF represents if the beneficiaries is the head of the family and 0 otherwise. EDU considers the education level of the respondent in terms of primary, secondary and tertiary. REGN denotes where the respondents is presently living, dummy being 1 if he lives in urban region and 0 if he lives in rural region. SECT is the sector where the respondent operates and includes a series of 7 dummy variables: rearing of animals, garments, agriculture, handicraft, services, beauty care and jewellery. FOB demonstrates the form of the respondent’s business. NUMMFI represents the number of years the respondent benefited from microfinance services and it is a continuous variable. BUSEXP is 1 if he had prior business experience and 0 otherwise. LAMT is amount of loans the beneficiaries has taken and is a continuous variable and finally U is the error term.

Further a factor analysis which is a statistical and data-reduction technique is used to identify factors explaining the variation among measures, with the aim to find which factors of the poverty dimensions contributed to the change in living standard of microfinance beneficiaries; and determine which poverty dimensions should be included and excluded from the microfinance scheme.

5. Findings

5.1 Probit & Logistic Results
The results of both models showing the impact of improvement in income are reported in table 8 below.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficients (Probit)</th>
<th>Coefficients (Logistic)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>0.177</td>
<td>0.297</td>
</tr>
<tr>
<td>Gender</td>
<td>0.509</td>
<td>0.894</td>
</tr>
<tr>
<td>Marital Status</td>
<td>0.316</td>
<td>0.575</td>
</tr>
<tr>
<td>Head Of Family</td>
<td>-0.456</td>
<td>-0.760</td>
</tr>
<tr>
<td>Primary</td>
<td>-0.217</td>
<td>0.403</td>
</tr>
<tr>
<td>Form 1-4</td>
<td>-0.411</td>
<td>0.717</td>
</tr>
<tr>
<td>HSC</td>
<td>-0.319</td>
<td>-0.130</td>
</tr>
<tr>
<td>Region</td>
<td>-0.108</td>
<td>0.215</td>
</tr>
<tr>
<td>Agriculture</td>
<td>1.09</td>
<td>1.886</td>
</tr>
<tr>
<td>Beauty Care</td>
<td>1.125</td>
<td>2.017</td>
</tr>
<tr>
<td>Garments</td>
<td>0.570</td>
<td>0.985</td>
</tr>
<tr>
<td>Handicraft</td>
<td>0.242</td>
<td>0.432</td>
</tr>
<tr>
<td>Rearing of animal</td>
<td>1.020</td>
<td>1.777</td>
</tr>
<tr>
<td>Services</td>
<td>0.240</td>
<td>0.448</td>
</tr>
<tr>
<td>Form Of Business</td>
<td>0.042</td>
<td>0.165</td>
</tr>
<tr>
<td>Number Of Years</td>
<td>0.222</td>
<td>0.360</td>
</tr>
<tr>
<td>Being MFI</td>
<td>(0.000)*</td>
<td>(0.000)*</td>
</tr>
<tr>
<td>Beneficiaries</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Experience</td>
<td>0.119</td>
<td>0.233</td>
</tr>
<tr>
<td>Loan Amount</td>
<td>0.053</td>
<td>0.117</td>
</tr>
<tr>
<td>Constant</td>
<td>-1.67</td>
<td>-2.857</td>
</tr>
<tr>
<td>Pseudo R²</td>
<td>0.2809</td>
<td>0.2828</td>
</tr>
<tr>
<td>Number Of Observations</td>
<td>384</td>
<td>384</td>
</tr>
</tbody>
</table>

Note: *Significant at 1%, ** Significant at 5%, ***Significant at 10%

The individual characteristics of the respondents namely age, gender and marital status are positively significant. The older the beneficiaries, the more time is devoted to business. It was noted that women are more educated and know their business better and perform better thus enhancing their income. But other personal descriptions such as head of
family and lower secondary education of the respondents are negatively significant, which means that the probability to improve income was not feasible.

This result opposed those obtained by Kiuru et al. (2007). Mostly the FHHs who benefited from microfinance proved to have a negative impact on income as most of the female entrepreneurs have started a business following the loss of their jobs and the need to get their family out of the financial distress. However, though they benefitted from a loan from MFIs, their income was reduced by the operation of their business.

We also observe that beneficiaries from the agricultural and farming sectors are more likely to have a positive impact on their income. Nowadays, subsidies and even grants are made available by the government to encourage people to join these sectors. The price of fertilizers has been reduced. The government also provides, with the help of other organisations, training to these beneficiaries. These measures yielded high profits in their business, hence improving the hard economic times. The expensive equipment and the time-consuming training required to operate in the beauty care sector discouraged beneficiaries to join the business. Imported garments being much cheaper than locally produced ones, those in the garments sector find it difficult to import their raw material. Beneficiaries of the handicraft sector find the marketing of their products too expensive and very few can afford to hire a place to sell their products. Thus, beneficiaries of microfinance are reluctant to join these sectors.

Moreover, the form of business, business experience and loan amount do not impact on improving income. Being an experienced but sole trader turned to be a dilemma for the beneficiaries whereas such experience could be more efficient to someone eager to do business. Furthermore, the amount of loans also turned to be insignificant for both models. Such result is inconsistent with Ehigiamusoe (2008) findings, who observe an improvement in income of microfinance beneficiaries in Bangladesh with small loans. In Mauritius, these small loans are ineffective to address mass poverty since most poor cannot afford to start a small scale business or even to expand existing ones; many people open their own businesses with the financial support gained and which have flourished after long and consistent efforts.

However, beneficiaries faced financial problems as they have to pay other fees in respect to their loans amount which they contracted. In this context, a large proportion of people were not able to pay back their loans, so the government had to write off some debts of the clients of DBM. Thus, this decreases the burden for the beneficiaries.

Further, our finding reveals that being a member of microfinance increases income, thus reducing poverty. This is in line with Ehigiamusoe (2008), Murdoch and Haley (2002), Panjaitan et al. (1999) work where longstanding members proved to increase their income. Thus, the poor people manage their money more efficiently and effectively and create new opportunities for inclusive economic growth.

5.2 Factor Analysis
Factor analysis attempts to identify a small set of factors that represents the underlying relationships among a group of related variables. As per our findings, the result of the communalities shows that all the variables are well and completely fitted with the factor solution, and none could be dropped from the analysis. Only the first three components recorded Eigen values above 1 (10.051, 1.810 and 1.078). 86.62% of the total variation in the level of poverty is explained by cumulative effect of the 3 components extracted. But Kaiser’s criterion has been criticised as it fails to eliminate many factors in some situations. Thus, the parallel analysis is done to confirm the number of components to be extracted. The results are then compared with those of the Eigen value. If the value of Eigen is larger than the parallel analysis, then the factor is retained; if it is less, then it is rejected. The result is given in the following table:

<table>
<thead>
<tr>
<th>Component number</th>
<th>Actual eigen value from PCA</th>
<th>Criterion value from parallel analysis</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10.051</td>
<td>1.3516</td>
<td>Accept</td>
</tr>
<tr>
<td>2</td>
<td>1.810</td>
<td>1.279</td>
<td>Accept</td>
</tr>
<tr>
<td>3</td>
<td>1.078</td>
<td>1.2183</td>
<td>Reject</td>
</tr>
</tbody>
</table>

Source: Author’s Compliance

Thus, the results of parallel analysis retain only two factors for further investigation. Components 1 and 2 explain or capture much more of the variance than the remaining components.

To help in the interpretation of these two components, Varimax rotation is performed. The distribution of the variance explained has also been adjusted after rotation. Component 1 now explains 48.06% of the variance and Component 2 explains 31.01%. The total variance explained (79.07%) does not change after rotation, just the way that it is distributed between the two components. Thus, the table below reports the rotated component matrix.

<table>
<thead>
<tr>
<th>Component number</th>
<th>Improvement in household income</th>
<th>Employment opportunities</th>
<th>Improvement in savings deposits</th>
<th>Awareness of children Education</th>
<th>Assets Creation</th>
<th>Awareness on food and nutrition</th>
<th>Awareness of health and sanitation</th>
<th>Improvement in literacy level</th>
<th>Women are economically and socially</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.913</td>
<td>.911</td>
<td>.896</td>
<td>.882</td>
<td>.877</td>
<td>.830</td>
<td>.825</td>
<td>.744</td>
<td>.579</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

1 Since the assumptions of factor analysis are met namely the sample size is greater than 150, most of the correlations are greater than 0.3, the Kaiser-Meyer-Olkin (KMO) value is .866, and the Bartlett’s test is significant (p=.000), therefore factor analysis is appropriate.
Microfinance reduces poverty \( \times .561 \)
Role in decision making \( \times .932 \)
Expressing opinions freely \( \times .927 \)
Self confidence and worthiness \( \times .926 \)
Skill development \( \times .607 \)
Awareness about training organised by MFIs \( \times .595 \)

**Source:** SPSS Result- Extraction Method: Principal Component Analysis, Rotation Method: Varimax with Kaiser Normalization

The above table shows the loading of the factors into 2 principle components. The first group is gathered under psychological wellbeing and economic improvements whereas the second one can be named as social and managerial aspect. Moreover, the most important factors affecting living standard of beneficiaries of microfinance after rotation is the improvement in household income. These identified factors mainly contribute to the reduction of poverty in Mauritius for beneficiaries of microfinance services. Looking at the social aspects, microfinance improves the role of decision making.

Thus, the study concludes that microfinance was able to reduce the monetary, livelihood and capability approach of poverty in Mauritius. The attempt of the government in collaboration with some of the financial institutions was fruitful. But still efforts of the government towards poverty eradication for beneficiaries of microfinance should be focused mostly to create awareness about the facilities offered by the MFIs.

### 6. Conclusion and Recommendation

This paper tries to assess the impact of microfinance among Mauritius households around the Island. We focus on different elements like age, location of the worker, marital status, education level, number of years benefited from microfinance services and business experience. Microfinance services lead to women’s empowerment by positively influencing women’s decision-making power and enhancing their overall socio-economic status. Our study shows that the poor smooth their income. Additionally, the microfinance schemes in Mauritius contribute towards eradication of poverty and uplift the standard of living of the households.

However, there was fungibility in the sense that clients were using the loan for unintended purposes. Further, we observe that beneficiaries of microfinance lack appropriate skills to engage in more profitable business activities. This may indicate that financial services alone could not be sufficient enough to raise the living conditions of the poor. Therefore, as a pointer to future endeavours, the current services of MFIs need to focus on business training skills apart from loan provision to help the poor move beyond day-to-day survival and plan for their future. Alternately they will be able to undertake and develop long time, sustainable entrepreneurial activities, mobilising savings for financial intermediation, create employment opportunities and also increase their productivity.

In order to achieve these objectives of microfinance policy, policy makers should directly target the pockets of poverty in the different regions of Mauritius while implementing policies and strategies. The business activities of beneficiaries should be closely monitored as many of them argued that they had to close business due to marketing problems encountered midway.

Microfinance can have greater impact if it offers a broader range of financial services such as deposits services, micro insurance and transfer payments. Stakeholders should be involved in decision-making. Managerial skills should be enhanced and technology improved. Market research should be encouraged to better understand client preferences and the constraints that prevent the poor to take advantage of financial services like literacy, and titles, etc.

Furthermore, appropriate technical and vocational training should be given to the needy at regional level, in order to enhance skills and facilitate entrepreneurship necessary in the pursuit of sustainable livelihoods. Further, training in environmental issues should be provided.

Additionally, an awareness programme should have been mounted for women in poorest regions who were willing and able to start a business. Thus, ordinary micro-entrepreneurs should have been taught the technical know-how for preparing micro-business plans, which is a prerequisite for micro businesses.

Moreover, legal and institutional reforms can create incentives for microfinance by improving the operating environment for both microfinance providers and their clients. For example, streamlining microenterprise registration, abolishing caps on interest rates, loosening regulations governing non-mortgage collateral and reducing the cost and time of property and asset registration can foster a supportive climate for microfinance.

### References


