Impact of Micro-credit on Income of Poor Women involving in self-employment activities in Jaffna District: A Discriminant Analysis

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Abstract: This study was conducted to investigate the impact of micro-credit on income of poor women who are involving in self-employment activities focusing on people who borrow from microfinance institutions and continuously using it in selected rural areas in Jaffna District. This study mainly focuses on the status of using micro credit and effect of micro-credit on income of the poor women. Data were collected using survey method; using direct personal interviews with a ninety six women headed households. The sample from three villages (Chulipuram, Kondavil, Kopyay) of Valikamam Division in Jaffna District was selected by using simple random sampling method. To find out the accuracy of the data the Cronbach’s alpha reliability test has been done. Further, the self-employment can be divided into two categories as product and service and to differentiate the income among the production and service activities of poor women the discriminant analysis was used by using SPSS software. The result of this study revealed that the micro-credit leads to increasing income and asset building those who involve with production activities. In addition to this, using micro-credit creates more job opportunities and economic activities and improves the income of women through the self-employment opportunity. However, the micro-credit has negative impact on people's feeling about paying back the loan because most of the people borrowed fund from various licensed specialized Banks and leasing companies which provide loans with higher interest rates.

Keywords: Micro-credit, Income, Poor Women, Self-employment activities and living standards.

I. BACKGROUND OF THE STUDY

The term microfinance refers to a variety of financial services that target poor and low income clients. Micro loans are provided for a multi purposes. Microfinance Institutions (MFIs) are the organizations which provide loans and other services to the poor people. According to ADB (2008) Microfinance is the provision of financial services of deposits, loans, services for payment, and insurance to the poor and low income people and their micro enterprises. These statements are explaining that microfinance is a financial service but it is designed specifically for the poor people to improve their lives in sustainable manner. It is an economic development approach providing financial services through institutions to low-income people. Many microfinance institutions provide social intermediation services. Those are training and education, health and skills and organizational support to meet their development objectives.

Self-employed people referred to a person who works for himself/herself, however getting income from a business that they operate personally (en.wikipedia.org). Self-employment and women in entrepreneurship has been growing in developed economies for women to survive themselves and to help support their families (Gordon, 2000). Therefore it can be seen that women entrepreneurship is a budding observable fact and has had a noteworthy economic shock in all economies. However, women-owned enterprises have challenges and constraints that need to be addressed and specific needs that have to be identified to help them.

Microcredit has become one of the important mechanisms towards achieving the Millennium Development Goals (MDGs), poverty alleviation, and eliminating gender inequality and women empowerment by 2015 (Fernando, 2004). Further, experts in the field have argued that, microfinance has the capacity not only to reduce poverty, but to develop the institutional capacity of microfinance institutions to efficiently and effectively provide sustainable financial services to poor households. Evidently, micro credit has become one of the most important interventions for increasing income of rural people in developing countries.

Sri Lanka has been suffering from various challenges and difficulties more than three decades due to the conflict situation. When Sri Lanka faces difficulties due to nature such as flood and tsunami and conflict the micro credit assist the poor people who are affected this situation. However in the post war context the microcredit support to the poor people specially women who have been affected by conflict who lost their male relatives and loved ones. In this situation they forced to take the family responsibility and they have to earn in some ways. The MFIs help the poor people to engage in the self-employment activities and enhance the income of the poor women. This study focuses on micro credit and income of the poor people who are vulnerable by the conflict situation

Maheswaranathan and Kennedy (2010) revealed in their research on Impact of Micro-credit on Eliminating Economic Hardship of Women that the microcredit led to the elimination the economic hardship of women. It was an easy way for the
women to obtain a loan facility from an informal way. However, the micro credit was meant for the livelihood activities of women until now, it assisted the beneficiaries’ family to eradicate the poverty by providing a support in fulfilling the need. The microcredit institutionalization was functioning in a planned and corporative manner where the repayment could not be avoided and it was an easy way for the women to obtain the loan and repay the loan.

Samurdhi programme helps to the poor people to enhance their living condition and higher women participation has link with living standard of households. The impact of the Samurdhi programme for the improvement of the living condition is the main purpose of Samurdhi Programme. In other hand those promoting factors, the field has found some measures that should be improved for better outreach of the programme (Pranshha, 2012).

The microfinance could provide a lot of positive results on peoples household economy such as creating job opportunities, increasing household incomes, building up women’s capabilities, enhancing household education and family wellbeing, however, microfinance could be a heavy responsibility for people too. When people used financial service from MFIs, they could increase household income, household’s assets, and improving living standards. It might be concluded that micro-credit was strongly related to the improvement of household’s economics. However, it also showed that micro-credit created some negative impact such as the stress of borrowing ie the repayment of loan. (Sivchou Teng, Sokhak Prien Nara Mao, & Bunhor Leng, 2011). This study analyses the impact of micro credit on income of the self-employed poor women in Jaffna District as discriminated them into High and Low potential income on their Production and Service activities.

It has been accepted that the micro credit will have a positive impact on women’s living condition. It is also believed to play important role in increasing self-employment in micro enterprises and enhancing the income generating activities. With regard to eliminating gender inequality, provision of micro credit facilitates enhancing the self-confidence and status in the family. These assumptions and other claims are mostly extended from theories and empirical evidences of impact assessments of micro credit programmes, however some of the results of impact assessments described shortcomings of achieving the set targets.

Pushpuakumara (2011) concluded that the micro financing is a key factor in reducing poverty. After engaging micro credit there is positive effect on the monthly income, gain for the capital investment and savings. But in gender wise, women are more effective than men in using micro credit facilities. Further, Datta and Sahu (2020) revealed that the microcredit utilisation supported to the borrowers to start up income-generating activities and engagement of manpower within their household and beyond.
following research questions are arising from the research problem as a main review question.

i) What is the fact of the impact of micro credit on income of the poor women?

And it includes the following sub question also:

- To what extent do Production and service activities influence on income of poor women?

The aim of this study is to investigate the impact of micro credit on income of the poor people.

Further this study has the secondary objective include;

- To assess the influence of production and service activities influence on income of poor women.

II. LITERATURE AND HYPOTHESES DEVELOPMENT

Microcredit has expanded around the world in the last three decades. By the development of innovative ways of establishing credit available to the poor, the idea of microcredit has challenged many traditional assumptions about income generating strategies and financial markets. The Theory and Practice of Microcredit intends to way out this disparity, arguing that a correct consideration of the progression is important both for developing theories that are applicable for the factual world and for accepting policies that can better understand the full potential of microcredit. The first-hand knowledge of this development in Bangladesh, the origin of microcredit, the authors have pressed the frontiers of present facts through a rich blend of theoretical and empirical analysis (Diana Barrowclough, 2018).

Prof. Muhammad Yunus, doing his analysis of several microcredit programmes already on track in what was then East Pakistan. Yunus commenced his own experimentations of microcredit in Chittagong. Then Yunus declared that with his own adaptation of microcredit, which concerned a narrative structure of ‘social collateral’3, still the extremely poorest could effectively employ in small entrepreneurial activities and could repay their microloans successfully. That is, said the poor were now to be “bankable”. Yunus’s vital notification to the international development community was that, with the help of microcredit, it is likely to “bring capitalism down to the poor” (Wahiduddin Mahmud and Osmani, 2019).

This financial support gave origin to the Grameen Bank, as well as a increasing number of MFIs in Bangladesh, and then across Asia. The international donor community was now fully persuaded that the microcredit model could make key inroads into universal poverty and, significantly, in an adequate personal, private and market-affirming approach. With rising international donor support, the worldwide microcredit industry was born. So it has the positive impact on income of poor people (Diana Barrowclough, 2018).

Pushpuakumara (2011) concluded that the micro financing is an important factor in reducing poverty, since it has positive relationship between microfinance credit usage and performance. After engaging with microfinance credit schemes there is positive effect on the monthly income, gain for the capital investment and savings. But in gender wise, women are more effective than men in using micro credit facilities. Therefore they recommended that more credit facilities to be granted for female oriented business activities in order to achieve the objectives of the micro credit programmes at national level. The microcredit utilisation helps the borrowers to start up income-generating activities and engagement of manpower within their household and beyond (Datta and Sahu (2020).

Zohir and Matin (2004) stated that many micro credit loans are used for agricultural production, processing, transport and trading, , resulting in an increase in the use of agricultural inputs and increased agricultural output. This leads to improved employment opportunities in these sectors for the wider community and a reduction in the prices of such product due to better supply. Further, they stated that trading activities financed by MFIs can help to establish new marketing links and increase the revenue of sellers, and can resulting of this reduced migration due to increased employment opportunities and increased income (Zohir and Matin, 2004).

Ayadurai, (2010) concluded that the women entrepreneurs of the North East of Sri Lanka must be recognized as an important unit contributing to the economic growth of the country. They must be supported by the international organizations involved in the growth and development of entrepreneurship, especially women entrepreneurship, to help them “function” effectively as women entrepreneurs.

Haileselassie, (2007) studied that the microfinance plays a significant role in the economic empowerment through the provision of loans to poor women who are uneducated and unable to fulfill the collateral requirements required by other financial institutions. Microfinance enables them to become self-employed. Further, some of the women have managed their incomes in small amounts and increased their savings also.

Perah, (2008) explained that if microfinance can reduce poverty then it could be used as a powerful tool for preventing HIV/AIDS. The justification is that as a result of high level of poverty, the vulnerable in society mostly women seek alternative means of livelihood as a result of which they fall victims to the dreadful disease. This study finally expressed that policy recommendation to help MFIs embrace the reality of HIV/AIDS in meaningful and successful ways, help the preclusion of HIV/AIDS, and alleviate the economic impact of HIV/AIDS on affected households.

Access to microcredit has a positive economic impact. The impact becomes larger for those closer to the poverty line and it also increases with the duration of membership or intensity of loans as members begin to invest in assets rather than consumption (Morduch and Haley, 2001). Microcredit
delivery in various points of the world has improved the economic position of households, enhancing the asset base and diversification in higher return occupations among members.

Based on previous studies stated in the Literature Review the assumption has been made as a hypothesis which has been developed for this study as follows:

\[ H_1 \] Micro credit has strong impact on income of the poor women in rural areas of Jaffna District.

\[ H_2 \] There is a significant difference among the High and Low potential income across production and service activities.

III. METHODOLOGY

The study was carried out in the rural areas of Valikamam DS Division in Jaffna District. This study used both primary and secondary data. Primary data which were collected through questionnaires from the women involving with self-employment activities. The documents such as the latest research reports, journal, and paper were used as secondary data to compare with the similar research all over the world. The sample size was determined by using non-probability sampling method, selecting only the women headed families who took micro loan from Women Rural Development Societies and Samurdhi Banks and continue to use it for their self-employment activities. Purposive sampling method was used to select the research location in Jaffna District and the simple random sampling method was used to select the women headed households using credit from the list given by Women Rural Development Officers in Divisional Secretariat Office. The respondents of the study were purposefully selected to be entirely women. This was made in order to get information from their own experience regarding the effects of micro credit on their income and the socio economic characteristics. The staff of the Samurdhi Bank, Rural Development Officers (RDOs), Women Rural Development Officers (WRDOs), assisted in identifying potential clients that could provide the required information. A selection was made from among the clients proposed by the staff. The structured questionnaire was designed to collect the data including demographical profile and the socio-economic profile of the clients from MFIs. The data were analyzed by using SPSS software. The Descriptive and inferential statistics were used in data analysis, which were ANOVA, Chi square etc. Further, to identify the socioeconomic characteristics of borrowers that classified or discriminate between two categories of performance of women livelihood activities (production activities in one hand and service activities) the discriminant technique also was used. The production activity includes packing food items (chilly powder, pickles, mixture, rice powder and vadakam etc.), palmyrah leaf products, agriculture goods and handicrafts etc., And the service activity includes the sewing, cooking, beauty parlour and small business activities etc., The research work also limited itself to the MFI due to time and financial constraints. In this regard the formal MFIs were selected purposefully. These formal institutions were chosen because of its wide area coverage with clients from various rural areas in Jaffna District.

IV. RESULTS AND DISCUSSIONS

4.1 Socio-Economic Characteristics and Income of Respondents

This section presents the findings of selected social and economic characteristics of the sampled population. The age of respondents, Educational level, Experience and income of the respondents are explained. For this purpose, the respondents’ perception of the potential of income of their production and service activities are scored on a scale of 1 to 5 from low income to very high income in respectively based on average score of the four socio economic characteristics of age, education, experience and saving and respondents are categorized into two groups as high potential of livelihood income and low potential of livelihood income.

The women aged 46-60 years were more likely to perceive their income than women aged of 31-45 years. For instance, in Table 6.1, about 52.6% and 37.2% of women of the ages of 46-60years and 31-45 years respectively, perceived their livelihood income as low whereas only 50% each of the women of the ages of 18-30 years and the above 60 years respectively perceived their livelihood income to be low.

Respondents with different education level were found to differ significantly in their perception of prospect of livelihood income at 5% level of significant. As shown in Table 6.1, women clients of micro credit interviewed has G.C.E. (A/L) educational background, are less to perceive their livelihood income as high than those with G.C.E (O/L) education. For example, about 51.4% of respondents who has completed G.C.E. (A/L) education perceived the prospect of their livelihood income to be low, whereas only 62.2% of respondents with G.C.E. (O/L) education also perceived their livelihood income to be high.

Respondents with different Experience were found to differ significantly in their perception of prospect of livelihood income at 5% level of significant. As shown in Table 6.1 micro credit women clients has 2-4 years’ experience are less to perceive their livelihood income as high than those with below 1 year experience. For example, about 53.8% of respondents who has completed 2-4 years’ experience perceived the prospect of their livelihood income to be low, whereas only 76.2% of respondents with below 1 year experience also perceived their livelihood income to be high.

Women with different saving level were found to differ significantly in their perception of prospect of livelihood income at 5% level of significant. As shown in Table 6.1 micro credit women clients has saving above Rs. 10,000 per month are less to perceive their livelihood income as high.
than those who have saving with below Rs. 10,000 per month. For example, about 84.9% of respondents who has monthly saving below Rs. 10,000 per month perceived the potential of their income on productivity to be low, whereas only 45.5% of respondents with above Rs. 10,000 per month also perceived their livelihood income to be Low. The table 6.1 shows that 19.05 percentage respondents are under nil saving with low potential of income on Production activity and 80.95 percentages nil saving with high prospect of income on Production activity.

4.2 Production and Service activities and future potential of Income

The main production and service activities that respondents provided is originated to be significantly related to the future potential of their Income at 5% level of significant as illustrated in Table I. From this table, about 66.6% of respondents who engaged in other services as their main livelihood activity perceived their potential income to be high as compare to 61.9 % of respondents who engaged in agriculture and food processing as their main livelihood. Hence, those who engaged in service delivery and petty trading are found to be more likely to perceive their potential of future income to be high as compare to those operating agriculture and poultry farming as their main livelihood ventures.

Result of the analysis recognized significant difference in the number of livelihood ventures engaged in by respondents with high potential of livelihood income and with low potential of their livelihood income at 5% level of significant. Respondents with many livelihood activities are more likely to perceive the potential of their livelihood to be high than those with less number of livelihood activities.

Table I: Production and Service activities and future potential of Income

<table>
<thead>
<tr>
<th>Prospect of Livelihood Income</th>
<th>Category of Livelihood</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low potential income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequenc y</td>
<td>Agricultu re and Poultry Farming</td>
<td>26</td>
</tr>
<tr>
<td>% within Column</td>
<td>61.90</td>
<td>58.33</td>
</tr>
<tr>
<td>High potential income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequenc y</td>
<td>Palmyrah and Food Production</td>
<td>16</td>
</tr>
<tr>
<td>% within Column</td>
<td>38.10</td>
<td>41.67</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequenc y</td>
<td>Petty tradin g and sewin g</td>
<td>42</td>
</tr>
<tr>
<td>% within Column</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Field Survey, 2019

4.3 Socio-Economic Characteristics Discriminate between High and Low Prospect of Income

Socioeconomic variables such as Age, level of education, experience and saving in livelihood activity got on that were explored in this study as independent variables and incorporated in the discriminant function to examine their influence in classifying respondents into the two groups of high and low prospect of income.

The testing yielded Wilks’ Lambda statistics of 0.264 compare with Chi-square of 134.30 points out that the discriminating power not accounted for by the discriminant function is insignificant at 5% level of significant, with 89.9% of the variables correctly classified. Also a conical correlation of 0.854 yielding co-efficient of determination (R²) of 0.726, suggest that 72.6% of the variation among the dichotomy dependent variable of High and Low potential of income is jointly explained by the variation of the independent variables in the discriminant function. The variables are found to be significant in discriminating between high and low potential of income are:

Age: Age is found to be significant in discriminating between High and Low potential of income, contributing 11.8% of the total discriminating power of the independent variable in the discriminant function. Relatively younger women beneficiaries of microcredit interviewed are likely to belong to the category of high potential of income than older women. For example, about 62.8% of respondents below the age of 45 years belong to the category of high potential of income as against 47.4% of those the age of above 45 years.

Education Level of Respondents: Education level is found to be significant in discriminating between High and Low potential of income, contributing 23.7% of the total discriminating power of the independent variable in the discriminant function. Respondents who have G.C.E (O/L) qualification are likely to belong to the category of high potential of income than other qualification. Eg. About 62.2% of respondents have the qualification of G.C.E. (O/L) belong to the category of high potential of income as against 48.6% of G.C.E (A/L) qualification and 0% above G.C.E (A/L) qualification.

Experience of Respondents: Experience is found to be significant in discriminating between High and Low potential of income, contributing 3.0% of the total discriminating power.
power of the independent variable in the discriminant function. Respondents who have 4 years’ experience are likely to belong to the category of high potential of income. Eg. About 53.6% of respondents have more than 4 years’ experience belong to the category of high potential of income as against 46.2% of less than 4 years’ experience. However, less than 1 year experience to be expected become high potential in future as they are in the initial stage with have more expectation.

Saving habits: Saving habits is found to be significant in discriminating between High and Low potential of income, contributing 30.7% of the total discriminating power of the independent variable in the discriminant function. Respondents who have greater than Rs. 20,000 income level are likely to belong to the category of high potential of income. Eg. About 54.5% of respondents have more than Rs. 10,000 income level belong to the category of high potential of income as against 15.1% of less than Rs. 10,000 income level.

<table>
<thead>
<tr>
<th>Discriminant Variables</th>
<th>Standardized Coefficient</th>
<th>Percentage Contribution</th>
<th>Unstandardized Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>0.404</td>
<td>11.8</td>
<td>0.187</td>
</tr>
<tr>
<td>Education Level</td>
<td>-0.848</td>
<td>23.7</td>
<td>-0.505</td>
</tr>
<tr>
<td>Experience</td>
<td>0.103</td>
<td>3.0</td>
<td>0.369</td>
</tr>
<tr>
<td>Saving habits</td>
<td>-1.072</td>
<td>30.7</td>
<td>-0.461</td>
</tr>
</tbody>
</table>

2.128 (constant)

Percent of correct classification = 89.9%

Conical Correlation = 0.854

Wilks Lambda = 0.264 (x² = 134.297; df=6p>0.05)

Regression (R²) 0.726

Source : Field Survey, 2019

Table V: Wilks' Lambda across socio economic characteristics

<table>
<thead>
<tr>
<th></th>
<th>Wilks' Lambda</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>1.000</td>
<td>0.000</td>
<td>0.994</td>
</tr>
<tr>
<td>Education</td>
<td>0.991</td>
<td>0.807</td>
<td>0.371</td>
</tr>
<tr>
<td>Experience</td>
<td>0.979</td>
<td>1.982</td>
<td>0.162</td>
</tr>
<tr>
<td>Income</td>
<td>0.851</td>
<td>16.495</td>
<td>0.000</td>
</tr>
<tr>
<td>Savings</td>
<td>0.893</td>
<td>11.298</td>
<td>0.001</td>
</tr>
</tbody>
</table>

Source: Survey Results

V. CONCLUSION

According to the overall results of this study, shows that respondents in the area engage in agriculture and Poultry farming, Palmyrah products and food processing, petty trading and sewing and other services. Majority of the respondents of this study engage in agriculture and poultry farming and Palmyrah and food processing. The results also show that but half the respondents are ready to enhance their potential income since they started taking advantage of micro-credit.

In addition, micro-credit had improved household’s living to be better, because it could increase household’s incomes, assets, job opportunities, the empowerment, education and family welfare to those people using microcredit. However, data also showed that micro-credit created some negative impact like the strain of borrowing and repayment.

Less than half of the respondents interviewed for this study, are able to enhance their potential income and that they are classified as having high potential of skyrocketing income with their production activities instead of service.

In terms of influence of beneficiaries socio economic characteristics on their ability to extend potential income who were within the category of high and low potential of reducing vulnerability on one hand and people classified as High and Low potential of accelerating income on the opposite hand, are found to differ significantly in terms of age, education level, experience and savings habits. Also age and educational level are found to discriminate significantly between respondents classified as High and Low potential of increasing income using production and service activities.

The following recommendations are given based on the findings:

Most of the women beneficiaries of microcredit interviewed for this study do not owned land or have direct access to land, but rely on their husbands and other male family members to access land for crops cultivation. This situation limits their ability to invest their borrowed money on their livelihood activities. So, it is recommended to allocate land and other resources to the poor people including poor women. And also, in response to the lack of skills training and education regarding enterprise development and skill management among women it is recommended that the provision of training to women of microcredit to help establish and enhance their education and managerial and entrepreneurial skills.

This study therefore recommends the need for loan officer to take into consideration the kind of livelihood venture women borrowers run, so as to design appropriate and timely credit package to meet their cash demand. This study did not explore the profitability and marketing challenges facing rural women borrowers of micro-credit. Therefore there is the need for further research on of borrowers’ enterprise and marketing challenges and prospects.
REFERENCES


