The Impact of Microfinance Institutions on Improving the Livelihood of Their Clients: The Case of SMCP-Eritrea

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Abstract
Microfinance institutions supply loans, savings and other financial services to the poor and other low income clients on a sustainable basis and play a role in the alleviation of poverty. The objective of this article is, therefore, to examine the impact of Saving and Micro-Credit Program (SMCP) in improving the livelihood of its clients. SMCP is one of two microfinance institutions active in Eritrea. The data collected from clients (both old and new) was analyzed through the help of Analysis of Variance (ANOVA). The result indicated that there is a statistically significant relationship between duration of cliental membership and mean income of clients of SMCP. Thus, the findings reveal that SMCP plays significant role in improving the livelihood of its clients through its provision of financial services. It is therefore recommended that microfinance policy should further be publicized so that other low income members of the Eritrean society would be aware and demand financial services to grow their small business and improve their economic status.
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1. Introduction

Over the past years, microfinance has become one of the interesting topics in development economics because it is seen as a key development tool. Schreiner and Colombet (2001) defined microfinance as “the attempt to improve access to small deposits and small loans for poor households neglected by banks”. When poor people are unable to obtain financial services from banks directly then microfinance plays an important role in providing financial services, including loans, savings and insurance. This helps the low income clients to rise, protect and expand their income, as well as to accrue assets.

Microfinance has been shown as important tool for levitation the living standards of the poor and breaking out of poverty. There has been an increase in the role of microfinancing that target the poor, vulnerable, and marginalized people in development agendas. It has been alluded as a panacea for alleviating poverty among the poor members of society. According to Morduch (1999) access to microfinance alleviates extreme poverty, thereby transforming the social and economic structures in low-income households. Various evidences displays that the effect of microfinance is not only at individual and household levels (Littlefield et al., 2003) but also at the country level (Khandker, 2005).

The second goal of the Sustainable Development Goals (SDGs) is ‘Zero hunger’ where countries are encouraged to strive to end hunger, achieve food security and improved nutrition and promote sustainable agriculture (Sachs, 2012). Micro activities such as micro-financing are some of the interventions that help achieve such goals. Thus it is essential to comprehend the impact of microfinance programs because the results are crucial for developing effective microfinance products and services that can help reduce the incidence of poverty, ensure food security and contribute to overall countries development (Cintina and Love, 2014)

Results on the impact of microfinance are inconclusive. The existing literature, shows a mixed response to the main issues of microfinance, which leads to some critical questions on the holistic performance of microfinance sector. For instance, Rooyen et al. (2012), found in Sub Saharan Africa that microfinance does harm, as well as good, to the livelihoods of the poor. Similarly, according to Kaboski and Townsend, (2012) microfinance possibly results in increased total short-term credit, consumption, agricultural investment, income growth, but decreased overall asset growth. Other scholars, such as Cull et al., (2009), also question the effectiveness of microcredit in isolation, in successfully lifting people out of poverty and improving welfare. Some even contend that the effectiveness is even less for the poorest and those with limited skills, as these groups of borrowers can rarely use the loans productively (Imai et al., 2010, Copestake, Bhalotra, and Johnson, 2001; Zaman, 2001).

Hermes and Lensink (2007) comprehensively reviewed both the positive and negative kind of impact in different perspective and they were unclear whether microfinance substantially contributes to a reduction of world poverty and urged for solid empirical research. Therefore, the purpose of this study is to examine the impact of saving and micro credit program (SMCP) on its client's livelihood.

SMCP was established 1996 to provide microfinance services to the population which the conventional financial institutions have failed to serve. This study intends to contribute to the inconclusive literature by investigating the role of saving and microcredit programs in the context of Sub-Sahara African country, Eritrea. The remainder of the paper is organized as follows: In the next section, comprehensive literature review is presented. Section 3 includes research question and hypothesis of the paper. Section 4 presents the sample and methodology employed to conduct the research. Section 5 is about results and discussion and the final section will encompass concluding remarks of the study.

2. Literature review

Microfinance is an economic development approach that involves providing financial services, through institutions, to low-income clients, where the market fails to provide appropriate services. The services provided by Microfinance Institutions (MFIs) include credit, saving and insurance services. Many microfinance institutions also provide social intermediation services such as training and education, organizational support, health and skills in line with their development objectives. Whereas microcredit which is a component of microfinance is defined as the extension of small loans to entrepreneurs, who are too poor to qualify for traditional bank loans. Especially in developing countries, micro-credit enables very poor people to engage in self-employment projects that generate income, thus allowing them to improve the standard of living for themselves and their families (Khan and Rahaman, 2007). The existing studies about the impact of microfinance programs displays mixed evidence and the impact is conflicting between positive impact, no impact and limited impact to the less poor and even negligible or negative effect on the poorest.

Saundarjya and Sarma (2020), used ANOVA to examine the impact of microfinance on income and welfare of clients. Their analysis reveals that as a result of participation in microfinance, consumption expenditure and income of the participants comparatively appears to be better than non-participants. Cintina and Love (2017) conducted research by utilizing PSM 10 to re-evaluate the effectiveness of microfinance. By comparing microfinance institution (MFI) borrowers to those without any other loan and to those with other type of loans, they found positive and significant effect on housing improvement and in purchasing durable goods in both cases while the difference in temptation goods and festivals slightly lower when compared MFI borrowers with other type of loans. Setboonsarng and Parpiev (2008) using cross sectional data studied the microfinance impact of the Khushhali Bank (KB) in Pakistan. Their results show that while the KB has a significant, positive contribution to income generation, it only slightly affects education, health and female empowerment. Islam, Hossain and Afrin (2014) also examined the impact of microcredit on poverty reduction from 100 microcredit recipients of Grameen Bank, BRAC and ASA using structured questionnaire and found that these MFIs play important role to reduce poverty by generating employment and improving living standard by better education, health facilities and higher health expenditure. Swain and Floro (2012) using cross-sectional data investigated the Self Help Group (SHG) in India, which aims to decrease poverty and vulnerability. They utilized the propensity score matching (PSM) to examine whether the SHG leads to decrease in poverty and household vulnerability. Their findings reveal that, SHG members' vulnerability reduces significantly after their first year of membership. Based on the data collected from borrowers who completed at least three loan cycle, Haque et al. (2017), discovered that microfinance program has positive and significant effect on household income, expenditure and saving. Phan (2012) using PSM and the fixed effect model explored the effect of the Vietnam Bank for Social Policy on household consumption and income based on Mekong River Delta data and the Vietnam Household Living Standard Surveys. The finding of the study confirmed that the formal credit program has a positive impact. The PSM method revealed a positive and significant impact on household consumption. Boonpermet al. (2013) assess the impact of the Thailand's village funding (VF) on income and spending. The authors applied both PSM and a fixed effect model and found that the VF rises the income of the poor by 1.4% and spending by 3.5%. Their findings also reveals that the VF's impact on expenditure is strongest in the lower quantiles and flows excessively to low-income families. These results prove that the VF is pro-poor. Hossain (2012) conducted a study using semi-structured questionnaire from 208 peoples who borrowed from BRAC microfinance and his findings revealed that BRAC-microfinance operation has a positive impact on occupation, expenditure, savings, employment generation, dwelling house of the responded borrowers. Evidence from the study of the role of microfinance institutions in Empowering Women shows that participation in saving and microcredit programs, increases the purchase of personal consumer goods, the degree of respect for women clients from their spouses, and next in kin and women's degree of social recognition (Bahta et al., 2019). Khandker, Khalily and Samad (2015) documented interesting results on the longer term effects of microcredit on household welfare, utilizing a panel data of households covering 87 villages of rural Bangladesh and they estimated long run effects of microcredit on household per capita income, expenditures, poverty, non-land assets, household net-worth, male & female labor supply and schooling of children.

However, as it is stated in the above, there are studies that question the reliability of the impact of microfinance. For instance, according to Banerjee (2013), no evidence has been found that links credit to increasing consumption and income gains as a result of being a member to a microfinance from one to three years (Banerjee 2013). Similarly Kondo (2007) study on impact of microcredit on rural households in the Philippines found no significant impact on household assets as well as on human capital investments, such as health and education and mild impact on income and expenditures. Banerjee, Duflo, Glennerster, and Kinnan (2015) utilized two goods to describe the impact of microcredit on consumption expenditure and found that expenditure of "durable goods" increased but expenditure of "temptation goods" declined and no significant difference was reported on health, education or women's empowerment. Other scholars indicated benefits for the poor but not for the poorest (Copestake, Bhalotra, and Johnson, 2001; Zaman, 2001). Others allude to negative impacts, implying that microfinance does harm, such as the exploitation of women clients, augmented or at best unchanged poverty levels, increased income disparity, augmented workloads and child labor, the creation of dependencies and barriers to sustainable local economic and social development (Bateman and Chang, 2009; Copestake, 2002). Despite, the conflicting role of the impact of microfinance, still microcredit is recognized as the most effective tool to reduce poverty. As shown in the above, the enormous literature works revealed enough empirical evidences that supported the positive impact of microfinance in the improvement of livelihood of the clients. Thus it can be assumed that a well-designed microfinance programme can considerably change the wellbeing of the poor at the individual, household, and community levels and help alleviate poverty.

3. Research Question and Hypothesis:

The goal of this study was to examine the relationship between duration of cliental membership by SMCP and monthly income these members earn in their trades. The independent variable was divided into two groups. The first group of creditors was those who were new to the organization with only one to two years of relationship and the second group includes old-timers with more than two years of credit acquiring relationship with SMCP. Using these variables an attempt was made to answer the following research question.

RQ: Does a statistically significant relationship exist between duration of cliental membership and monthly mean income of clients of SMCP?

H0: There is no statistically significant relationship between duration of cliental membership and monthly mean income.

H1: There is a statistically significant relationship between duration of cliental membership and monthly mean income.

Hereby we want to test whether H0: $\mu 1 = \mu 2$ (that is, each of the samples comes from a population with the same mean) against Ha: $\mu 1 \neq \mu 2$ (that is inequality exists between the two mean incomes).

4. Methodology

The study methodology in this paper is based on the collection of primary data through use of questionnaire. The quantitative data is collected through survey of beneficiaries in a sample of sub-zobas. This cross sectional data is conducted over a period of two months.

The target population is all those people to whom credit is forwarded by the Saving and Micro Credit Program (SMCP). The sample has covered beneficiaries from five out of six Zobas of Eritrea. The sample size is set to ensure a statistically significant sub-set of program participants in each analytical category of interest. SMCP has branches in 56 out of 58 sub-zobas. As the SMCP documents indicate in 2015 there were about 52,300 beneficiaries.

In this venture, two-stage stratified cluster sampling method was carried out to select the 550 individual respondents. Cluster sampling technique is used to select the participants first, by dividing our sampling frame into clusters of sub-zobas. Every sub-zoba in the survey area is assigned a measure of size equal to the total number of beneficiaries in the sub-zoba. Then a sample of sub-zobas with a predetermined sample size is selected independently.

Data entry program is developed and designed using CSPro version 6.0 in order to enter, verify and clean the data. Finally, SPSS version 23 statistical package was used to analyze the data. The scope of the quantitative analysis includes the use of a comparison group to define a counterfactual outcome to estimate the impact of credit on clients. Accordingly, the 550 clients were include old timer clients (n= 461) and new clients (n= 89). The key problem is defining a valid counterfactual outcome against which the old group can be compared.

This was solved through the use of a one-time survey to collect information on the old and new groups. This impact evaluation assessed the difference in outcomes on key impact variables between the treatment (target) group and a control group. The control group was used as a proxy for what would have occurred had there been no intervention. In total 550 respondents were interviewed. The 461 respondents belong to the target group (old-timers; with more than two years of credit acquiring relationship with SMCP) and the remaining 89 represent the control group (new clients- with only one to two years of relationship with SMCP).

To measure impact it is necessary to compare the outcomes of target group clients with that of the control group that has identical social and demographic characteristics. The comparison for significant difference between the treatment and control groups is done by using Analysis of Variance (ANOVA) test. The dependent variable is monthly income of clients and the independent variable is the status of clients' namely seasoned client versus new clients.

5. Results and discussion

To determinate whether the mean test score differs we can examine relationships between two variables by comparing the mean of the dependent variable between two groups within the independent variable. In order to examine the relationship between these variables and compare the means of these groups on the dependent variable we chose to use a one way ANOVA as a data analysis technique for this study.

5.1 Demographic characteristics of the respondents

Accordingly descriptive statistics was conducted to see the distribution of the data. Table 1 shows the summary of the descriptive statistics.

Table 1: Descriptive Statistics

SMCP's membership in Years	Stan. Error	Mean	Stan. Dev	N
One to two years	574.60	2779.63	5420.79	89
Three and plus years	477.99	5291.75	10263.02	461
Total	413.02	4885.25	9686.17	550

The size of the sample consists of 89 beginners and 461 old-timer clients of SMCP and their mean score and standard deviation ranges from 2779.63 to 5291.75 and 5420.79 to 10263.02 respectively.

5.2 Hypothesis Testing: ANOVA

We conducted a one-way ANOVA to examine whether there is a mean score difference between these two SMCP groups and table 2 displays the summary for the ANOVA.

Table 2: Summary of ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	470772368	1	470772368	5.055	.025
Within Groups	51037503472	548	93134130		
Total	51508275840	549			

Table 3: Test of Homogeneity of Variances

Levene Statistic	df1	df2	Sig.
9.500	1	548	.002

A p value of less than 0.05 is required for significance and our ANOVA result is significant F (1, 548) = 5.055, p = 0.025. Therefore, the above result allows us to reject the null hypothesis H0. Accordingly, the Levene Statistic score is 9.5 (1, 548) with significance of 0.002.

5.3. Discussion of the Results

A one way ANOVA was used to examine the relationship between duration of stay of cliental members of SMCP and their average monthly income. The mean monthly income is the dependent variable while the grouping of the members of creditor members based on the duration of members is our independent variable. The ANOVA was found to be significant F (1, 548) = 5.055, p = 0.025. The relationship between the duration of membership of clients and mean monthly income was strong. The result of ANOVA allowed us to reject the null hypothesis H0 and defend the idea that there is a statistically significant and strong relationship between duration of stay of members and higher average monthly income. Accordingly one can claim that the longer the work relationship between a client and SMCP the higher is the mean monthly income of that member.

6 Conclusion

The two microfinance institutions who are active in Eritrea have been working since 1996. Through the support they initially received from the government of Eritrea they have reached more than 70000 beneficiaries. This covers only a very small proportion of the potential beneficiaries who could have profited from their services. The first step should be to reach even more people with microfinance. Outreach expansion, with a focus for the poor, and women in particular, has to be given more emphasis.

Credit must, above all, be accompanied by some kind of marketable skill development, which the poor seriously lack. Credit alone can only increase the "scale" of existing activities rather than enabling the poor to move into new or higher value activities. Some kind of cultural transformation may also be called for at this particular juncture in order to change the attitudes of some otherwise poor people who are reluctant, for cultural reasons (including religion), to engage themselves in non-traditional activities which are much more rewarding indeed. Thus, SMCP should have an Information and Communication Unit. It should promote its activities and services through radio, TV and other media to teach, inform and stimulate potential clients living in urban and remote rural areas of Eritrea.

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