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SOCIO-ECONOMIC DETERMINANTS OF ERITREA'S SAVINGS AND MICRO CREDIT PROGRAM LOAN REPAYMENT PERFORMANCE: A CASE OF THE DEKEMHARE SUZ-ZONE

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ABSTRACT: *The Savings and Micro Credit Program of Eritrea was established to provide financial services to the poor and lower income individuals to enhance their business activities and alleviate poverty level. The study analyzed the socio-economic factors that affect the institution's loan repayment performance and a sample of 140 beneficiaries was fixed from the Dekemhare Sub-Zone using the Stratified Sampling technique. A structured questionnaire was used to collect the primary data and descriptive statistics and the probit model were employed to analyze the data. Results of the regression analysis revealed that the level of education, loan amount and loan category have insignificant effect on the probability of the SMCP loan repayment. On the other hand age, gender, type of business and credit experience are significant determinants where age and type of business have negative relationship and gender and credit experience have positive relationship with the loan repayment probability*.

KEYWORDS: Loan Repayment Performance, Microfinance, Microcredit, Probit, Savings and Micro Credit Program, Eritrea

INTRODUCTION

Access to credit has been recognized to be among the factors of production vital towards accelerating household and national economic development (Kangogo st al., 2013). However, despite their prevalence, small enterprises and most of the poor population in developing countries have very limited access to financial services provided by the conventional financial institutions. Muhammad Yunus, widely regarded as the designer of the modern microfinance, claimed that there exists a "financial apartheid" as two-thirds of the world's population did not have access to financial services from the conventional financial institutions (United Nations Commission on International Trade Law, 2010). Moreover, the 1976 Economics Nobel Prize winner Milton

Friedman quoted, "The poor stay poor not because they are lazy but because they have no access to capital" (Smith & Thurman, 2007).

Microfinance Institutions were, therefore, established around the 1980 to fill the gap in the finance sector by providing financial services, such as loans, savings, insurance and other financial products, to the poor and lower income groups and thus enhance their business activities and alleviate poverty level (Nawai & Shariff, 2010). These days there are more than 7000 microfinance institutions in developing countries with microloans amounting to about 16 million granted to poor borrowers (Baklouti, 2013). The smallness of loans and savings, the absence of asset-based collateral and the simplicity of operations are the three distinctive characteristics of the financial services provided by MFIs (Agbaeze & Onwuka, 2014).

The performance of MFIs has, nevertheless, been debated extensively in the empirical literature focusing on the methods that MFIs use to improve borrower's payback behavior (Lensink & Mehrateab, 2003). These sections of the populations lack access to financial services from the formal financial services because of unavailability of financial records, limited credit history and lack of assets for collateral which makes lending to them costly as well as risky since it involves high screening, monitoring and enforcement cost (Roslan & Abd Karim, 2009). Moreover some beneficiaries of the MFIs, especially when they are public organizations, regard the loans obtained as their own fair share of the "national cake" and thus fail to repay the loan promptly (Oladeebo & Oladeebo, 2008).

Additionally repayment performance points toward the appropriateness of MFIs' services to the requirements of their beneficiaries (Godquin, 2004). Adegbite (2009) argues that, in order to evade its adverse effects, every factor which encourages loan default ought to be understood and reversed. Therefore MFIs need to develop an early warning system that would evolve with the changing risks confronting the institutions, thereby protecting their short-term liquidity and long term viability (Goldberg & Palladini, 2010).

The Savings and Micro Credit Program (SMCP) is a MFI operating throughout the State of Eritrea. The majority of the Eritrean population does not have access to the conventional financial institutions basically due to lack of collateral and financial records. Moreover the Eritrean financial sector is small and underdeveloped offering only a limited range of financial services. SMCP was, therefore, established in 1996 as part of the Eritrean Community Development Fund (ECDF) and it provides savings and micro credit services to the poor section of the population the conventional financial institutions have failed to serve. The institution enables its beneficiaries to successfully deal with environmental hazards, economic failures as well as personal and family problems.

Pollio & Obuobie (2010) claim that government sponsored programs followed by financial NGOs have the worst record of achieving either operational or financial self-sufficiency implying, without sizable grant, interest rates on loans provided would be significantly higher with resultant negative impact on repayment obligations. The SMCP currently charges a fixed 16% interest rate on the loans, which is higher than what the commercial banks ask for.

Moreover the SMCP, unlike the conventional financial institutions, primarily examines a customer's savings and loan performance to assess his/her credit worthiness. Such a strategy could

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be unsuccessful in mitigating adverse selection problems and consequently the repayment rate of the SMCP loans has been 89 percent. Comparatively successful programs such as the Grameen Bank and Amanah Ikhtiar Malaysia have succeeded in securing loan repayment rates of 98 percent stabilizing their institutional profit levels (Morduch, 1999; Mokhtar et al., 2012). SMCP, therefore, needs to make every effort to improve its loan repayment performance in order to safeguard sustainability, reduce dependency on aids, shrink financial cost in thereby charge competitive interest rates and expand outreach.

The objective of this paper, therefore, lies in addressing objectively the determinants important to the MFIs' repayment rates. In this regard the study examines the effects of the socio-economic characteristics of the borrowers on the repayment performance of the SMCP loans. This study is intended to make a contribution to improving the MFI's repayment performance through a better exploration of its determinants. In this pursuit, therefore, the study proceeds on the following null hypothesis:

H_0GDR: The gender of the beneficiaries has no significant effect on the probability of the repayment of the SMCP loans.

H_0AGE: The age of the beneficiaries has no significant effect on the probability of the repayment of the SMCP loans.

H_0LOE: The level of education of the beneficiaries has no significant effect on the probability of the repayment of the SMCP loans.

H_0TOB: The type of business operated by the beneficiaries has no significant effect on the probability of the repayment of the SMCP loans.

H_0LAT: The amount of SMCP loan obtained by the beneficiaries has no significant effect on the probability of the repayment of the SMCP loans.

H_0CEP: The credit experience of the beneficiaries has no significant effect on the probability of the repayment of the SMCP loans.

H_0LCT: The loan category of the beneficiaries has no significant effect on the probability of the repayment of the SMCP loans.

LITERATURE REVIEW

World Bank defines microfinance as the provision of financial services on a small scale to people who lack access to traditional banking services and the loans are usually disbursed to low-income clients for self-employment, often along with the simultaneous collection of small amounts of savings (World Bank, 2007). Robinson (2001) further added social intervention as an important part of the development of microfinance, which involves forming citizens' groups to voice their aspirations and raise concerns for consideration by policy makers and thus advance their self-confidence. The success factors for the sustainability of MFIs include appropriate lending methodology as well as supportive regulatory and supervisory environment.

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Microfinance Performance Theories

Based on efforts seeking to determine the best way to help the poor through access to financial services, the microfinance movement has come to be divided by two broad theories, namely the welfarist and institutionalist theories (Kodongo & Kendi, 2013). This opposition faces two requirements of microfinance which are targeting the poorest among the poor (social performance) and enhancing the profitability of the institution (financial performance). The welfarist theory focuses on the demand side that is reaching out to the very poor which are generally riskier and less accessible. Since it promotes a strategy for improvement of the wellbeing of the poor populations, the theory seeks to measure the performance of the MFI through the institution's impact on the living conditions of the targeted populations (Omoro & Omwange, 2013).

The institutionalist theory, on the other hand, emphasizes the performance evaluation from the stance of the MFIs rather than the customers. The institutionalists believe that self-sufficiency leads to long-term sustainability for MFIs which will expedite inordinate poverty relief in the long term. It seeks to enclose MFIs within the circle of money market while insisting on the will of setting up lasting microfinance systems as well as on mass distribution of credit (De Bairey, 2005). Thus institutionalists designed a set of best practices which target at enhancing efficiency with regards to management systems, finance and accountability, marketing and service delivery among others (Morduch, 1999). Kodongo and Kendi (2013) summarize the difference between these two theories that high risk aversion MFIs fit in the institutional approach and they are likely to favor group lending where as those with low risk aversion inclination are likely to ascribe with the welfarist approach and favor individual lending.

Repayment Performance

The welfarists' approach has been subject to many criticisms with regards to costs and methodology problems (De Briey, 2005). This approach has led to the failure and vanishing of some MFIs as a result of low repayment rates as well as very high operation cost. The MFIs that shared this fate included Colombia's NGO Corposol, Cameroon's Caisses Populaires, Burkina Faso's Projet de Promotion du Petit Credit Rural (PPPCR) and Guinea's Credit Mutuel (Gaetan, 2012). The institutionalists' approach, moreover, is not without criticisms. According to De Bainey (2005) the core customers of MFIs are micro-entrepreneurs very close to the poverty line, geographically concentrated, with high-output activities and short production cycles. It requires rather high interest rates from customers in order to ensure financial autonomy within a period of 5 to 12 years. The goal of financial and institutional viability, however, remains out of reach for most MFIs (De Bainey, 2005).

Kodongo and Kendi (2013) explained an intermediate theory between these two approaches which balances the objectives of poverty alleviation and financial self-sustainability. MFIs have to provide not only financial services to the poor but they also need to cover their costs to avoid bankruptcy in other words safeguard sustainability. A study conducted by Kodongo and Kendi (2013) ensues on the assumption that borrowers' chance of failure to pay diminishes if their financial needs are adequately satisfied. Thus microfinance packages that demonstrate high propensities for loan delinquency are reckoned not to be effective in fulfilling borrowers' financial needs (Kodongo and Kendi, 2013). Furthermore Godquin (2004) argues either information asymmetries, adverse shocks affecting the borrower or the low performance of institutions is the

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main factor influencing loan repayment. Information asymmetries cause problems of adverse selection whereby the borrower may act in an objectionable manner.

Age

Mokhtar et al. (2012) suggests that older borrowers would be more responsible and disciplined in repaying their loans than younger borrowers. Kodongo and Kendi (2013) evaluated the causes of delinquency in microfinance lending programs of Kenya using the logistic regression model. Similarly the results of the study showed that loan delinquency was inversely related to age but it only had an insignificant effect. Oladeebo and Oladeebo (2008), on the other hand, found out that age of the farmers of Ogbomoso in Nigeria influenced loan repayment negatively and significantly. They suggested that credit institutions might be willing to give loan facility to young and dynamic farmers who are more likely to adopt new innovation than the older farmers.

Gender

Gender has been associated with the repayment performance of MFIs' loans and the tendency of the findings has been that women are less likely to default. Bhatt and Tang (2002) argue that female clients enjoyed less default frequency on loan repayment possibly because they generally delight in the hard work ethic and the culture of financial discipline. Armendariz de Aghion and Morduch (2005) state that, owing to the repayment problem related to male clients, the Grameen Bank decided to change over to a just about full focus on women. On the other hand the most reputed MFI in Indonesia, BRI has still achieved nearly perfect repayment rates over several years even though it never had specific focus on women (Armendariz de Aghion & Morduch, 2005). Furthermore, the findings of a study carried out by Nawai and Shariff (2012) in Malaysia show that female borrowers have high probability of being in the delinquent category.

Level of Education

Better educated entrepreneurs would have a higher ability to understand and analyze complex information and have higher entrepreneurial social competence enabling them to make the right business decision (Bhatt & Tang, 2002). Similarly the results of a study conducted by Baklouti (2013) on the Tunisian Microfinance Bank indicate that higher educational level was significant and positively related to better repayment performance. To the contrary a study by Salazar (2008) show that less educated clients defaulted less often. Reinke (1998) who studied South African MFI reasoned that clients with less education valued the loans more highly because they had fewer financial alternatives and thus they were more likely to repay their loans (Cited by Salazar, 2008).

Type of Business

In the study the businesses operated by the SMCP beneficiaries were categorized into two groups, agricultural and non-agricultural activities. Baesens et al. (2011) holds social control and typical lower volatility are expected to make agriculture to be the safest sector. To the contrary Besley and Coate (1995) argue that agricultural portfolios are more uncertain and thus agricultural production would demonstrate higher rates of payment failures. Whereas Mokhtar et al. (2013) found that borrowers involved in small business activity were less likely to have problem repaying their microcredit loan than those engaged in agriculture. On the other hand, Baklouti (2013) using the binary logistic regression model showed that borrowers engaged in agricultural projects are more likely to repay their debts than those engaged in small trade activities. Nguta and Huka (2013) still discovered that there is a fairly weak relationship between the type of business and the loan repayment default.

Loan Amount

In a typical MFI clients who have healthy loan repayment performance graduate to the next higher amount of loan. The study carried out by Oladeebo and Oladeebo (2008) on the socio-economic determinants of loan repayment among small scale farmers in Nigeria indicate that the amount of loan obtained by the farmers was among the major factors that positively and significantly influenced loan repayment. To the contrary Wongnaa and Awunyo-Vitor (2013) studied the factors affecting the loan repayment performance of Yam farmers in Ghana and the results of the probit model used indicate that amount of loan was among the factors that had insignificant effect.

Credit Experience

Kocenda and Vojtek (2009) claims that the number of previously concluded loans is the most important behavioral characteristic which indicates the possibility of default risk will decrease as the number of credit rotations increases. According to the findings of the study conducted by Oladeebo and Oladeebo (2008) the number of years of experience with credit has significantly positive influence on loan repayment. On the other hand studies conducted by Pollio and Obuobie (2010) and Bakoulti (2013) indicated that loan repayment rates deteriorated among the repeat borrowers as compared to new borrowers.

Loan Category

Adverse selection and moral hazard are believed to be the two detrimental features of the environment within which MFIs operate significantly increasing default risk (Verhelle & Berlage, 2003). Despite its decisive importance, existing empirical evidence on the significance of loan category has not provided policymakers and institutions the proof needed to determine the relative intrinsic worth of the group and individual loan methodologies (Gine & Karlan, 2011). Collateral requirements are used as an inducement to guarantee repayment of individual loans, whereas in the group lending methods joint liability and future access to credit for each member, which rely on each member carrying on their obligations, are the prime spurs for loan repayment (Kodongo & Kendi, 2013). The results of the research conducted by Gine and Karlan (2011) in Philippines were that individual liability centers were no more likely to default than their peers in group liability centers in the short term as well as the long term. Conversely, Kodongo and Keri (2013) found out loan category significantly affects loan delinquency and individual borrowers are three times more likely to default on their loan than group borrowers.

METHODOLOGY

The Savings and Micro Credit Program of Eritrea has three branches in the Debub (South) Administrative Zone of the country, namely the Dekemhare, Mendefera and Adi Quala branches. The study analyzed the effect of the socio-economic factors on the repayment performance of the SMCP loans in the Dekemhare sub-zone. By the end of the third quarter of the 2013 the branch had a total of 3144 beneficiaries and 1327 of these obtained microcredit loans from the institution.

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Since the study was concerned with the determinants of the institution's loan repayment the 1327 microcredit clients represented the target population of the study.

The study used both primary and secondary data. The main primary data collection instruments employed in the study were the use of structured questionnaires and interviews. The data was collected from a sample of 134 respondents, which were 67 defaulters and 67 non-defaulters. Variables included in the questionnaire were age, gender, level of education, type of business, loan amount, credit experience, and loan category. The study also made use of secondary data obtained from the internet, academic journals, JKUAT library and other sources.

The socio-economic characteristics of the respondents were described using averages and percentages while the factors influencing loan repayment performance of the SMCP loans were analyzed using the probit regression model. An SMCP beneficiary's ability to pay for the loan at the right time is dichotomous. That is the beneficiary is either able to pay for the loan at the right time or not. The probit model was, therefore, used to analyze the effect of the independent variables on the probability of the repayment of the SMCP loans.

Unlike the linear regression, the probit model has the capacity to constrain the utility value of the ability to pay for loans variable to lie within 0 and 1 as well as the ability to resolve the problem of heteroscedasticity (Wongnaa & Awunyo-Vitor, 2013). The model is based on the threshold theory of decision making in which a reaction occurs only after the strength of a stimulus increases beyond the individual's reaction threshold, Y^*. This implies that every individual when faced with a choice has a latent reaction threshold influenced by several factors (Asante et al., 2011). This yields a binary dependent variable, Y, which takes on the values of one when the beneficiaries pay the loan at the right time and zero otherwise. In the probit regression model the observation would be

$$Y_i = \begin{cases} 1 \; if \; Y_i^* > 0 \\ 0 \; if \; Y_i^* \leq 0 \end{cases}$$

The probability of observing a value of one is:

$$\begin{aligned} Pr\,(Y_i = 1|X) &= Pr(Y^* > 0 \mid X) \\ &= Pr(X_i\beta + \varepsilon_i > 0 \mid X) \\ &= Pr\,(\varepsilon_i > -X_i\beta \mid X) \\ &= 1 - \Phi\,(-X_i\beta) \end{aligned}$$

$$\Pr(Y_i = 1 \mid X) = \Phi(X_i\beta)$$

Where Φ is cumulative distribution function, X_i is the vector of explanatory variables, β is the vector of parameters and ε_i is the error term. Then it follows the probability of observing a value of zero is:

$$P_r\,(Y_i = 0/X) = \Phi\,(-X_i\beta_i)$$

The dependent variable for the probit model takes the value of 1 for borrowers who paid their SMCP loan at the right time, which includes those who paid on the due date or within 30 days after the due date, and 0 otherwise. On the other hand the independent variables used in the regression model are:

AGE: age of the beneficiaries which is measured in number of years.

GDR: gender of the beneficiaries which is takes the value of 1 for male and 0 for female beneficiaries.

LOE: level of education of the beneficiaries which is represented by dummy variables 0, 1, 2, 3, 4 and 5 if the respondents have attended no formal education, primary school, junior school, secondary school, and postsecondary school respectively.

TOB: type of business operated by the beneficiaries which takes the value 1 for agricultural and 0 for non-agricultural business activities.

LAT: loan amount of the beneficiaries acquired from the SMCP recently.

CEP: credit experience of the beneficiaries which is measured in terms of the number of SMCP loans the beneficiaries have acquired so far.

LCG: loan category of the beneficiaries SMCP loans which takes the value of 1 for individual loans and 0 for group loans.

RESULTS

Age distribution

The average age of the respondents in the study was 46.9 years. Based on the findings there were no beneficiaries in the study whose ages were below the 20 years. Similarly beneficiaries between 21 to 30 years of age were only 2.2 % of the respondents. The proportion jumps up sharply to 22.4 % for beneficiaries aged 31 to 40 years. The table also shows the age bracket with highest number of beneficiaries at 36.6% were 41 to 50 years. Following this age bracket the percentage declines to 26.9% and 11.9% for the 51 to 60 and Above 60 age brackets respectively. This implies that no teenagers are engaged in microcredit activities in the branch's domain with only slight increment of beneficiaries who are in their 20s. In other words the beneficiaries could be assumed to be unable to appreciate the benefits of the microloans for their entrepreneurial activities until they reach the third age bracket.

Gender distribution

The results of the study show that 32.8% of the respondents in the study are male borrowers and 67.2 percent are female. This indicates more women are involved in the Dekemhare SMCP branch than men. The institution grants microcredit loans to applicants who have fulfilled their national service duties and currently majority of the men in the country are carrying out their national service duties. Hence presently females are the dominant beneficiaries of the SMCP.

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Education level distribution

The results indicate that 20.1% of the respondents in the branch did not attend formal education at all. Majority of the beneficiaries (32.1%) in the branch completed only their primary school while 31.3% of the beneficiaries reached up to the junior school level. About 15.7% of the beneficiaries concluded their secondary school study while only 1 respondent has gone beyond the secondary school level of education. Thus the beneficiaries of the institution have very low level of formal education achievements which in part may affect their ability to understand the terms and conditions of the loans.

Marital status distribution

The findings on the marital status of the respondents show 80.6% of the respondents were married and 13.4% widowed. Respondents who were separated and divorced accounted for 1.5% and 3% respectively while only 1.5% of the beneficiaries were single. The results, thus, indicate that most of the beneficiaries in the branch are married and the average number of dependents was 3.5 persons for the non-defaulters whereas it is 4.1 persons for the defaulters. Moreover the findings of the research show that all the beneficiaries who were widowed, separated or divorced belonged to the female respondents whereas all the single respondents were males.

Type of business

The majority of the respondents (78.4%) were primarily engaged in non-agricultural business activities while the remaining were involved in agricultural activities. The beneficiaries might have been encouraged to venture into non-agricultural activities because rainfall is commonly once a year in major parts of the area and it is often unpredictable. Cattle breeding (52%) and horticulture (48%) were the only agricultural activities practiced by the agriculturalists. For the non-agriculturalists the majority were involved in retailing business accounting for about 80% of these respondents. Moreover the findings show around 93% of the businesses had sole-proprietorship type of ownership and about 78% of the business's startup capital was obtained either from personal savings or other informal sources. Furthermore 78% of all the respondents indicate that the SMCP loans were too low and this was composed of 86% of the agriculturalists and 75% of the non-agriculturalists. The results, additionally, show that on average the non-agriculturalists make higher monthly average income than the agriculturalists with Eritrean Nakfa (ERN) 1501 to 2000 and ERN 1001 to 1500 respectively.

Credit experience

The number of SMCP loans obtained is used as a proxy for the credit experience of the respondents. The findings show on average the non-defaulters have higher number of SMCP loans than the defaulters which were 3.4 and 2.2 respectively. Moreover the maximum number of loans obtained was 7 for the non-defaulters but 6 for the defaulters. The results indicated that only 20% of the respondents saved portion of their monthly income commonly for business expansion and 80% of which were among the non-defaulters. Moreover, 78% of the beneficiaries indicated that the SMCP loans were too low and majority turned to family, friends and other informal sources to supplement the loans. However, no one of the beneficiaries acquired additional finance to add-on to the SMCP loans from banks or other formal sources.

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Loan Amount

The findings on the size of the respondents' last loans show that the non-defaulters have larger SMCP loan size than the defaulters which were ERN 29,851 and ERN 19,224 respectively. Moreover the non-defaulters have higher minimum and maximum amount of SMCP loans at ERN 6,000 and ERN 100,000 respectively than the defaulters. This would indicate that the institution has graduated better performing clients to the next higher loan offer and the increased amount of loan enables the clients to invest in bigger ventures which are more lucrative further improving their loan repayment performance.

Loan category

According to the findings Dekemhare branch has more clients participating in the individual loan (57.5 %) than the group loan category (42.5%). The findings further show that about 53% of the individual loan beneficiaries were non-defaulters whereas about 54% of the group loan beneficiaries were defaulters. Majority of the individual loan clients (70%) obtained Small Business Loan (SBL), however, the Irrigated Agricultural Loan (IAL) and Oxen Loan (OL) clients defaulted more often consecutively. Similarly majority of the group loan clients (89%) acquired Micro Business Loan (MBL) but the Small Seasonal Agricultural Loan (SSAL) clients defaulted more often. On average group loans were composed of 4 members. The results further indicate that the individual loan clients were visited by the loan officer more often than the group loan clients and the group loan clients who were never visited by the loan officer were more than twice as many as their individual loan counterparts.

DISCUSSION

The results of the probit regression analysis on the effect of the socio-economic variables on the probability of the SMCP loans repayment is illustrated in Table 1 below. The results indicate that level of education, loan amount and loan category have insignificant effect on the probability of the repayment of the SMCP loans. On the other hand age, gender, type of business and credit experience are significant determinants of the probability of the SMCP loans repayment at 5% level of significance.

Table 1. The Binary Regression Analysis Results

Variable	Coefficient	Standard Error	Significance
Gender	0.64	0.31	0.04*
Age	-0.04	0.02	0.01*
Level of Education	-0.25	0.14	0.06
Type of Business	-0.70	0.33	0.03*
Loan Amount	0.00	0.00	0.10
Credit Experience	0.23	0.10	0.03*
Loan Category	0.08	0.33	0.82
Intercept	1.27	0.84	0.13

* Significant at 5 percent level of significance.

The findings indicate the level of education of the beneficiaries is negatively related with the probability of the SMCP loan repayment. This means, contrary to the findings of Baklouti (2013) but similar to Salazar (2008), clients with lower education have better loan repayment performance. This signifies that the clients with lower education have fewer financial options and thus they would improve on their loan repayment performance in order not to lose their only formal source of credit. However, this factor has an insignificant effect on the loan repayment probability and thus the null hypothesis H_0LOE is accepted.

The SMCP loan amount, on the other hand, has positive relationship with the repayment probability of the SMCP loans which means, in line with Oladeebo and Oladeebo (2008), clients with larger loans have better loan repayment likelihood. The larger loans allow the clients to venture in bigger investments with higher rate of return. However, similar to the findings of Wongnaa and Awunyo-Vitor (2013), loan amount has insignificant effect on the SMCP loan repayment probability and thus the null hypothesis H_OLAT is accepted.

Similarly the probit model results indicate that loan category has positive relationship with the probability of the repayment of the SMCP loans and thus, contrary to the findings of Kodongo and Kendi, (2013), clients engaged in the individual loans have better SMCP loan repayment probability than the clients involved in group loans. Nevertheless the regression analysis results also indicate loan category is an insignificant determinant, similar to the findings of Gine and Karlan (2011), and therefore the null hypothesis H_OLCT is accepted. This means, despite the absence of collateral, the repayment performance of the group loan clients is fairly equivalent to the individual loan clients' performance.

The gender of the beneficiaries, on the other hand, has a significantly positive relationship with the SMCP loan repayment probability. This implies, unlike the common tendency, male beneficiaries have better likelihood of paying the institution's loans than their female counterparts. Therefore the null hypothesis H_0GDR is rejected. This is contrary to the findings of studies carried out by Armandariz and Morduch (2005) and Bhatt and Tang (2002). The study shows that 98% of the male respondents were married and the remaining 2% single, whereas 72% of the female respondents were married and the remaining 28% were either widowed or divorced or separated. Therefore the female respondents find themselves at a more disadvantaged position struggling to provide as a single parent than the male respondents.

The age of the beneficiaries has a significantly negative effect on the SMCP loan repayment probability and consequently the null hypothesis H_0AGE is rejected. This entails that the younger beneficiaries of the institution are likely to have significantly better loan repayment performance than the older ones. This is in line with the findings of Oladeebo and Oladeebo (2008) but opposes the findings of Kodongo and Kendi (2013). The results indicate that the average ages among the defaulters and non-defaulters were 48 and 45 years respectively. The older respondents may be financially more disciplined, however, the younger generations have the desire and ability to break from the status quo and become innovative and dynamic which are keys to success in an age of knowledge centered economies and continuously complex technologies.

Likewise the type of business operated by the beneficiaries has significantly negative relationship with the probability of the repayment of the SMCP loans and the null hypothesis H_0TOB is,

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therefore, rejected. This signifies beneficiaries who are engaged principally in non-agricultural business activities have considerably better likelihood of repaying the SMCP loans than those involved in agricultural activities. This result coincides with the findings of Mokhtar et al. (2013) but contradicts with that of Baklouti (2013) and Nguta and Huka (2013). The smallness of the SMCP loans do not allow the agriculturalists to invest in advanced technologies that would enable them to expand their productivity beyond the rainy season and subsequently improve their SMCP loan repayment performance. The majority of the non-agriculturalists on the other hand are engaged in retailing activities which require relatively smaller startup capital and the SMCP loans would, therefore, suffice relatively better for the non-agriculturalists than the agriculturalists.

Lastly the regression analysis shows that credit experience of the beneficiaries has significantly positive effect on the probability of the SMCP loans' repayment and thus the repayment likelihood of the SMCP loans improves noticeably as the number of loans acquired by the beneficiaries increase. Therefore the null hypothesis H_0CEP is rejected. This result corresponds with the findings of Oladeebo and Oladeebo (2008) but contravenes the conclusions reached by Pollio and Obuobie (2010) and Bakoulti (2013). The findings indicate that the beneficiaries rely on informal sources of finance when the SMCP loans are low but never on banks or other formal sources. Hence the SMCP represents the only formal institution majority of the beneficiaries have made business with and the clients obtain better understanding of the terms and conditions of the loans with increased credit rotation in the institution and eventually improve their loan repayment performance. Moreover as the beneficiaries continue acquiring loans they start to appreciate the importance of the SMCP loans for their entrepreneurial activities and thus work on improving their repayment performance in order to maintain their access to their only microcredit which they cannot access in the conventional financial system.

IMPLICATION AND CONTRIBUTION TO KNOWLEDGE

The repayment performances of MFIs' loans signal their appropriateness to the beneficiaries' requirements, that is the demand side hence the Welfarist theory, as well as to the future sustainability of the institution, that is the supply side hence the Institutionalist theory. To the best knowledge of the researcher, however, no study has so far been conducted on the determinants of the repayment performance relating to the SMCP or other MFIs operating in Eritrea. The study sought to assess the effect of socio-economic factors, age, gender, level of education, loan amount, credit experience and loan category, on the probability of the repayment of the SMCP loans. The findings of the study establish that caution should be taken against the risk of retaining a broad view of MFIs' loan default risk since these institutions operate in geographically isolated places where borrowers experience varying social, cultural, political and economic conditions. A global scheme, therefore, on how the socio-economic factors affect the probability of MFIs' repayment probability may not be effective. Rather detailed separate systems should be developed and installed for separate target prospective beneficiaries to spur the repayment performance.

CONCLUSION AND RECOMMENDATION

MFI play crucial role in fostering entrepreneurial undertakings and hence alleviating poverty in developing countries such as Eritrea where the poverty level is high and the financial institutions are underdeveloped. The majority of the SMCP beneficiaries are female accounting for 67.2% and

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the average age distribution of the beneficiaries were 48 and 45 years for the defaulters and non-defaulters respectively. Moreover about 80.6% of the respondents were married and the average number of dependents was slightly bigger for the defaulters than the non-defaulters. All those who were divorced, separated or widowed in the study were female respondents. Perhaps motivated by the pettiness and unpredictability of the rainfall in the area the majority (78.4%) were engaged in non-agricultural activities. SMCP represents the only formal financial institution majority of the respondents have made deals with so far and only 20% save part of their monthly income majority of which primarily saved for business expansion and 80% of which were among the non-defaulters. The results, additionally, show that 57.5% of the respondents were individual loan clients of the institution.

The analysis indicates that the level of education, loan amount and loan category have insignificant effect on the probability of the repayment of the SMCP loans at 5% level of significance. Hence the null hypothesis with regards to these determinants, H_0LOE, H_0LAT and H_0LCT are accepted. On the other hand age, gender, type of business, and credit experience have significant effect on the probability of the repayment of the SMCP loans and therefore the null hypothesis with respect to these determinants, H_0AGE, H_0GDR, H_0TOB and H_0CEP, are rejected. Gender and credit experience have a positive effect whereas the age and type of business have negative effect on the repayment probability.

Based on the results, therefore, the SMCP should work on how to bring its beneficiaries together and establish businesses which are owned in partnerships. This would allow the beneficiaries to accumulate their SMCP loans and invest in bigger and more lucrative businesses. Moreover SMCP should provide business advice to the beneficiaries with the objective of expanding the business sectors the beneficiaries can invest in. The business sectors the beneficiaries have failed exploit with the prevailing market situation included poultry, bee farming and modernized agriculture.

The institution should, in addition, work on encouraging younger individuals to acquire microcredit for their entrepreneurial activities. Moreover the SMCP beneficiaries who practiced savings, even though few, have succeeded to perform better in the SMCP loan repayment. Hence the MFI needs to introduce mechanisms that would motivate its beneficiaries to develop the habit of savings. This would enable the clients to enhance their financial ability to expand their businesses, guarantee the SMCP loan repayment and hence graduate to the next level of SMCP loans.

SUGGESTIONS FOR FURTHER RESEARCH

The socio-economic factors considered in this study may not be the only determinants of the SMCP loan repayment probability. Therefore, a similar research could be carried out that would would include individual borrower's household characteristics, saving behavior, business characteristics and loan characteristics. Moreover, a study could be carried out to investigate the factors that affect loan repayment probability in the individual loan category and the group loan category separately.

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