

Financial Inclusion and Financial Performance of Microfinance Institutions in Rwanda: Analysis of the Clecam Ejoheza Kamonyi

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Abstract

The present research named "Financial inclusion and financial performance of microfinance institutions in Rwanda: Case of CLECAM EJOHEZA KAMONYI (2011-2014)", had the main objective of evaluating the implementation of financial inclusion in microfinance institutions in Rwanda. The study used the techniques of questionnaire addressed to a sample of 162 calculated from a total population 11.121 CLECAM EJOHEZA KAMONYI members in collection of primary data and the technique of documentation for secondary data. During the treatment and analysis of data, the frequency calculation and tabulation, the IMF Factsheet and multiple regressions have been used. The major findings show that 70.4% of all respondents have been pushed by quick service and appropriate products to join LECAM EJOHEZA KAMONYI. 18.1% of all respondents choose this institution because it operates near for them while 11.5% of respondents said that they choose this institution for other reasons. 63.6% of all respondents said that the product and services respond to their needs on the level of excellent, 36.4% of all respondent are satisfied by the products and services on a very good the level. CLECAM EJOHEZA KAMONYI performs financially. In 2014, the portfolio at risk was 2.2%, the Operating Self-Sufficiency arrived at 143%, the portfolio yield was 25.6% while Operating expense ratio was 17%. The evolution of deposit depends on the number of members of CLECAM EJOHEZAKAMONYI, but the number of branches does not affect the deposits. The Operating expense depends on the number of branches but not on the number of members. The evolution of members has effect on evolution of share capital but the number of branches does not affect the evolution of paid up share capital. The deposits are correlated positively to net income at 92.6%.

Keywords: Microfinance; Financial inclusion and financial performance of MFI

Introduction

Microfinance, according to Otero [1], is "the provision of financial services to low income poor and very poor self-employed people". According to Ledgerwood [2], these financial services generally include savings and credit but can also include other financial services such as insurance and payment services.

Anne [3] states that the microfinance is the practice of providing a variety of financial services to the low-income and poor clients. The diversity of services offered reflects the fact that the financial needs of low-income individuals or households and small enterprises can change significantly over time. These services include loans, savings, insurance, and remittances. Because of these varied needs, and because of the industry's focus on the poor, microfinance institutions often use non-traditional methodologies that are not used by the formal financial sector [3].

Financial inclusion typically defined as the proportion of individuals and firms that use financial services has become a subject of considerable interest among policy makers, researchers, and other stakeholders [4]. In international forums, such as the Group of Twenty (G-20), financial inclusion has moved up the reform agenda. At the country level, about two-thirds of regulatory and supervisory agencies are now charged with enhancing financial inclusion. In recent years, some 50 countries have set formal targets and goals for financial inclusion [4].

After the 1994 Genocide in Rwanda, the microfinance sector has known a dramatic progress through the support of relevant international and non-government organizations especially for humanitarians. These NGOs helped people by support of daily use of equipment, foods but had also the microcredit teaching program [5]. During the emergency period, in some cases the loans do not differ to grants or donations and sowed confusion among the population. Thus

developed the non-repayment culture that resulted in non-performing loans, and therefore had a negative impact on results of micro-finance institutions [5].

In Rwanda, the introduction of UMURENGE SACCOs, in conjunction with the expansion of bank and MFI branches, the introduction of agent banking and the modernization of financial services such as mobile banking, ATMs and mobile money, have all helped to drive financial inclusion in Rwanda [6]. According to the FINSCOP survey conduct in 2012, the percentage of Rwanda's population accessing formal financial services has doubled from 21% to 42% and those completely excluded from the formal financial system has dropped by almost half, from 52% to 28% between 2008 and 2012 [7].

For the microfinance institutions which want the sustainability resists to deal with the poor because their income is not only low but also irregular and are therefore more vulnerable to external shocks and uncertainties of their cash flows [8]. Thus, we want to know if the introduction of financial inclusion had really negative impact on financial performance of MFIs in Rwanda. In addition, as we have seen the number of Rwandan population who has access on formal financial services has been doubled. So we are wondering the factors that accelerate financial inclusion on side of Rwanda's microfinance institutions.

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Research Objectives

The objective of the research is to analyse the implementation of financial inclusion for financial performance of microfinance institutions in Rwanda.

Specifically, this research has the following objective:

- To analyse the implementation of financial inclusion in CLECAM EJOHEZA KAMONYI,
- To evaluate the financial performance of CLECAM EJOHEZA KAMONYI,
- To measure the correlation between financial inclusion and financial performance of CLECAM EJOHEZA KAMONYI.

Literature Review

According to Ledgerwood [2], microfinance has evolved as an economic development approach intended to benefit low-income women and men. The term refers to the provision of financial services to low-income clients, including the self-employed.

Fatf [8] states that the terms “financial inclusion” is about providing access to an adequate range of safe, convenient and affordable financial services to disadvantaged and other vulnerable groups, including low income, rural and undocumented persons, who have been underserved or excluded from the formal financial sector. Financial inclusion dimension are grouped into three: Access, usage and quality [9].

Performance is the ultimate result of all the efforts of an organization. These efforts are to do the right things, in the right way, quickly, at the right time, at the lowest cost to produce the good results that meet the needs and expectations of customers, give them satisfaction and achieve the goals set by the organization [10].

International Journal of Engineering Research and Development (2012) conducted the research with objective of knowing why the vulnerable people are limited or no access to financial products and services in Tamil Nadu (Chine). The result show that the first factor was “Access to Financial Services”, the second factor was “Flexible Terms on Savings & Deposits”, the third factor was “Flexible terms of borrowing”, the fourth factor was “Access to information about various services” and the fifth factor was “Responsibility”. In the book “Financial Literacy: A Step for Clients towards Financial Inclusion”, Monique [11] state that financial inclusion is a multidimensional, pro-client concept, encompassing better access, better products and services, and better use, without the third element, use, the first two are not worth much.

The issue regarding the best way to provide financial services to the poor has fuelled intensive debates between two different schools of thinking: institutionalism and welfarist. This opposition faces two requirements of microfinance: Targeting the poorest among the poor (social performance) and enhancing the profitability of the institution (financial performance). Is there a trade-off between these two performances or can they combine [12].

According to Herein et al. financial education is an important tool to address this imbalance and help consumers both accept and use the products to which they increasingly have access. Because it can facilitate effective product use, financial education is critical to financial inclusion. It helps clients to both to develop the skills to compare and select the best products for their needs and empower them to exercise their rights and responsibilities in the consumer protection equation

Methodology

This section summarized dimensions of the research, tools and techniques and methods used to achieve the research objectives.

Data collection

The technique of questionnaire addressed to 162 members of CLECAM EJOHEZA KAMONYI (total population was 11.121 members) in collection of primary data and the technique of documentation for secondary data was used. The sample was calculated by using the formula of Alain BOUCHAR with confidence level of 99% and a permissible error of 10%.

Data analysis

To assess the implementation of financial inclusion, the researcher used frequency calculation and tabulation by using SPSS 16.0 where the factors influencing the financial inclusion were identified.

For the evaluation of the financial performance, the researcher used MFI Factsheet 3.5 while the identification of the relationship between financial inclusion and microfinance financial performance, the correlation matrix extracted by using SPSS 16.0 was used to show the correlation between net income and deposits and the running of the models (multiple regression) by using the Ordinary Least Squares to determine the statistical inference between financial inclusion indicators (independent variables) and financial performance indicators (dependent variables). The following are the models used:

$$\text{Model 1: } ED z_t = \beta_0 + \beta_1 M_t + \beta_2 B_t + \varepsilon_t$$

$$\text{Model 2: } OE = f_0 + f_1 M_t + f_2 B_t + \varepsilon_t$$

$$\text{Model 3: } OSS_t = \gamma_0 + \gamma_1 D_t + \gamma_2 LD_t + \gamma_3 PR_t + \varepsilon_t$$

$$\text{Model 4: } PY_t = \alpha_0 + \alpha_1 D_t + \alpha_2 L_t + \alpha_3 PR_t + \varepsilon_t$$

$$\text{Model 5: } PaR = \tilde{N}_0 + \tilde{N}_1 D_t + \tilde{N}_2 L_t + \tilde{N}_3 PR_t + \varepsilon_6$$

Besides these models, we computed the correlation between the net income and deposits of CLECAM EJOHEZA KAMONYI. The correlation coefficient of two variables, sometimes simply called their correlation, is the covariance of the two variables divided by the product of their individual standard deviations. It is a normalized measurement of how the two variables are linearly related. The correlation lies in the interval of [+1, -1]. If the correlation coefficient is close to 1, it would indicate that the variables are positively linearly related and the scatter plot falls almost along a straight line with positive slope. For -1, it indicates that the variables are negatively linearly related and the scatter plot almost falls along a straight line with negative slope. And for zero, it would indicate a weak linear relationship between the variables.

Findings and Results

Analysis of implementation of financial inclusion in CLECAM EJOHEZA KAMONYI

The analysis of data, by using frequency calculation and tabulation, shows that many respondents, 51.2% of all respondents, have four years and above of experience with CLECAM EJOHEZA KAMONYI. It means that the answers given by the respondents are true because they know very well the institution.

The majority of the respondents were pushed to become members of CLECAM EJOHEZA KAMONYI by the quick service and the appropriate products (140 members of our sample). Other reasons such

as methodology of solidarity group and proximity were responded by a small number of respondents (18.1% and 11.5% respectively).

Concerning the usage of services and products, 55.9% of all respondents use the savings product, 32.8% received the loan product and 11.4% of all respondents received the training on financial education. We assessed also the reasons that pushed some members to do not receive a given service or product. Some respondents didn't get loan because they did not want it or because they do not have information; 6% of the respondents did not get loan because they have loans in other financial institutions. The 78.4% of all respondents didn't receive training on financial education because they have no information about the training. Only two respondents said that they didn't receive the training because they have no time. According to the respondents who received the training (20.4%) said that the training was excellent (7.4%), very good (9.9%) and good (3.1%). This shows that the CLECAM EJOHEZA KAMONYI should increase training as long as this enhances the usage of its products and services.

The findings indicate that the product and services respond to customers' needs, this is confirmed by 63.7% of all respondents while 36.4% of all respondent said that they are very satisfied by the products and services. This shows that CLECAM EJOHEZA KAMONYI strives to adapt its product and services to its members' needs.

Generally the respondents are satisfied about the distance between the institution and the member's residence, according to their perceptions, 32.1% of the respondents are very satisfied of distance, 54.3% are satisfied and 13.6% are not satisfied. This situation justify that the products and services of CLECAM EJOHEZA KAMONYI are near of its members. The microfinance institutions should try to increase the number of branches, outlets and other service terminals so as to maximize the satisfaction of its members about the distance. About the working hours, 74% are very satisfied by the working hours, 25, 3% are satisfied while 0.6% is not satisfied by working hours.

Suggestions about the loan were made by the respondents, the 23.7% of them suggested to reduce the security deposit, 20.7% suggested to increase the period of reimbursement, 17.2% suggested to reduce the interest rate, 12.6% suggested to reduce the period of loan analysis, 11.5% required to enhance lending methodology. Concerning the suggestions about the proximity and accessibility of CLECAM EJOHEZA KAMONYI, 46.1% suggested to increase the number of sub branches or outlet. 20.6% suggested the increase of working days and increase of working hours. The adoption of technology has been suggested by only 12.7%.

Reference made on the above main findings, the implementation

of financial inclusion in CLECAM EJOHEZA KAMONYI is based on accessibility and adaptation of product and services to the member's needs. The financial education is not included in factors which accelerate financial inclusion in this institution.

Analysis of financial performance of CLECAM EJOHEZA KAMONYI

The analysis of financial statements (balance sheet, income statement and other financial information) indicated that CLECAM EJOHEZA KAMONYI is performing well year by year.

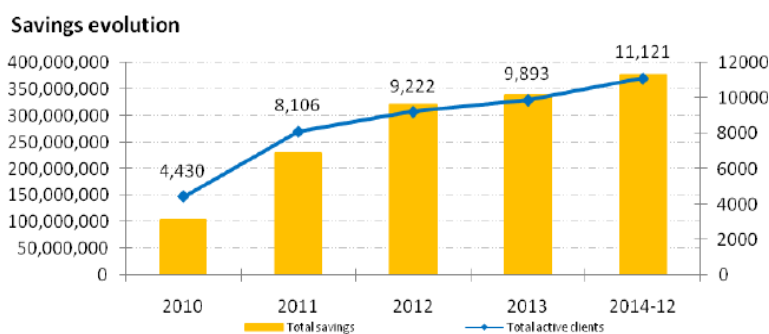
Evaluation of annually financial variation indicators: The total assets have been grown on the level of 121% in the year 2011, 51.8% in 2012, 5.3% in 2013 and 17.6% in 2014. Even if there is evolution of total assets, the decreasing of the percentage of evolution from 2011 to 2014 show that the trend is not good. The decreasing rate of assets has been caused by the composition of assets like net portfolio, total deposits, total borrowed funds where those posts have been grown with a declined percentage.

In the year 2012, the operating income have been grown to 91, 8% but this growth didn't increase significantly the equity, trough the increasing of the net profit, because the operating expenses have been also increased until 85%. The good situation could be when the operating income increases and the operating expenses decrease or if the increase in operating income is greater than increase in operating expense. Especially for the deposit and the number of members, Savings evolution is presented in the following graphic (Figure 1).

This graphic shows the evolution of total deposit and the evolution of the members. Those two aspects which have been grown in the same sense, their trend promise the good future and explain somehow that the product of saving respond to the needs of the members from 2010 to 2014.

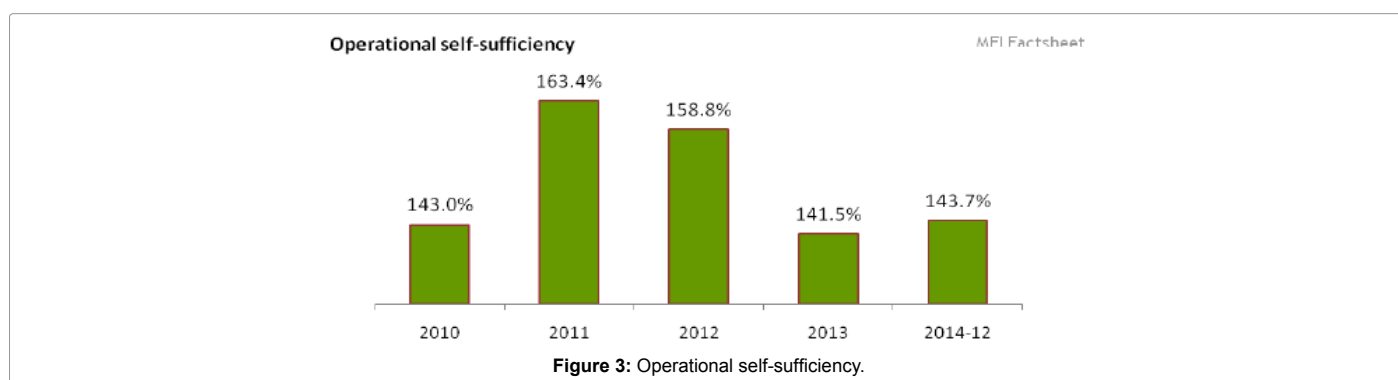
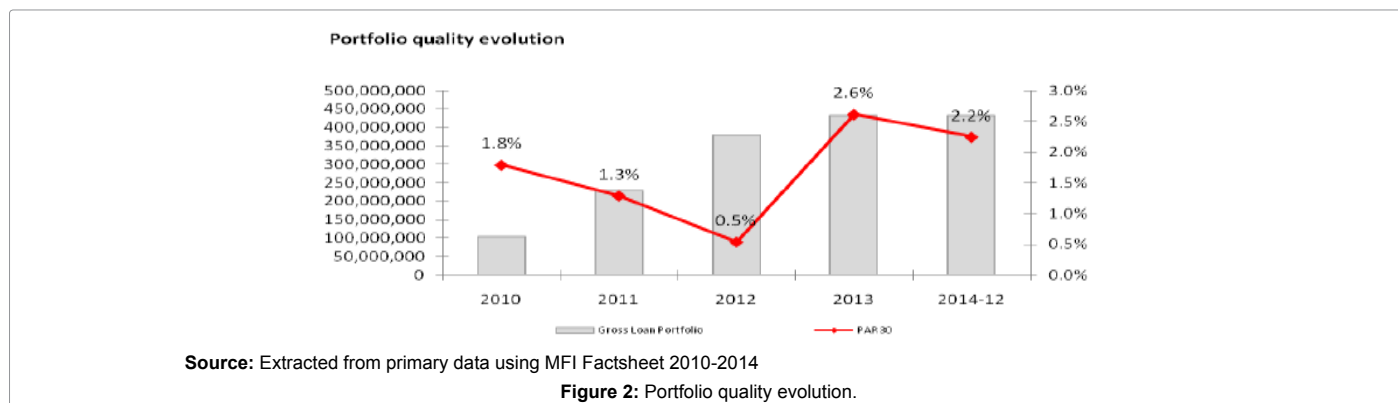
Portfolio quality: According to the regulation no. 02/2009 related to the organization of microfinance activity, which fixes the portfolio at risk at 5% as maximum, The CLECAM EJOHEZA KAMONYI respects that prudential norm from 2010 to 2014 the portfolio at risk (PaR 30) is 1.8%, 1.3%, 0.5%, 2.6% and 2.2% respectively for the year 2010, 2011, 2012, 2013 and 2014. Graphically, the portfolio at risk of CLECAM EJOHEZA KAMONYI from 2010 to 2014 is presented as follow (Figure 2).

In 2012 where the PaR was very low, the portfolios at risk written off were 43.8%. This situation means that the deceasing of PaR to 0.5% has not been caused by the mechanism good management of loan but by the procedure of write off of 43%. The portfolio at risk of CLECAM



Source: Extracted from primary data using MFI Factsheet, May, 2015

Figure 1: Savings evolution.



EJOHEZA KAMONYI is covered by the provision on the level of 32% in 2010, 67% in 2011, 59% in 2012, 65% in 2013 and 56% in 2014.

Sustainability: Return on Equity (ROE) is the most important profitability indicator; it measures an MFI's ability to reward its shareholders' investment, build its equity base through retained earnings, and raise additional equity investment [13]. There is no ROE in 2010 because the calculation of this ratio requires the data of 2009. The results mean that the equity of 100Frw in this institution generates 42.8, 32.9, 21.5, and 17.2 of income for the year 2011, 2012, 2013 and 2014. Even if this ratio is somehow high in 2011, from 2012, the ratio began to decrease, in other word, the trend is not satisfied in 2014 where the ratio reached 17.2% in 2014. CLECAM EJOHEZA KAMONYI has to put in place the mechanism of increasing the net profit in order to improve this ratio. This situation justify that from 2012 the equity and the net profit have not been increased at the same level.

A Return on Assets is an indication of how well an MFI is managing its asset base to maximize its profits (Ruth, 2008). The ratio includes not only the return on the portfolio, but also all other revenue generated from investments and other operating activities [13].

About the ROA, the assets of CLECAM EJOHEZA KAMONYI are performing well. The analysis shows that 100 Frw of asset generates the income of 9.3 in 2011, 6.9 in 2012, 5.0 in 2013 and 4.5 in 2014. The ROA ratio has been decreased from 2012 to 2014 even if the results are positive because the profit is not sufficient in comparison with the total assets.

The Operating Self-Sufficiency of CLECAM EJOHEZA KAMONYI shows that this institution covered all the expenses for the period of our research, as shown in the following graphic (Figure 3).

This graphic shows that in the year 2011 CLECAM EJOHEZA

KAMONYI was able to cover all expenses on the level of 163.4%. In other year also, even if it was able to cover all expenses, the trend was not very well because for example this ratio was dropped to 141.5% and 143.7% respectively in 2013 and 2014.

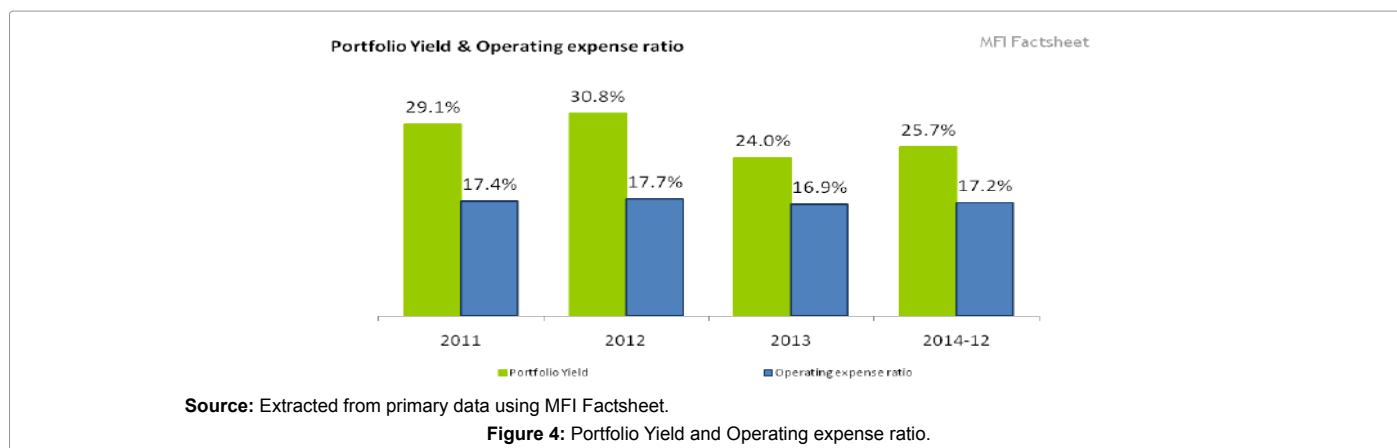
Efficiency and productivity: The comparison between portfolio yield and Operating expense ratio is summarized in the graphic (Figure 4).

This graphic shows that the income generated by the loan is greater than the cost engaged. For example in 2011, the cost of 100Frw given as loan was 17.4 while this amount generates 29.1 of income. In addition when comparing the operating ratio with portfolio yield ratio (29.14 in 2011, 30.76 in 2012, 24.04 in 2013 and 25.67 in 2014), there is a good margin between those two ratios [14].

Financial structure indicators: A set of financial ratios was calculated to see the performance of CLECAM EJOHEZA KAMONYI in terms of meeting short and long term obligations.

The capital adequacy ratio showed that this institution has the capacity of paying all liabilities with available equity on the level of 29% in 2010, 27% in 2011, 26% in 2012, 34% in 2013 and 37% in 2014. CLECAM EJOHEZA KAMONYI has to continue in this sense and avoid a decrease of this ratio. The ratio of leverage showed that the liabilities are 3.4 times of equity in 2010, 3.7 times of equity in 2011, 3.8 times of equity in 2012, 2.9 times of equity in 2013 and 2.7 times of equity in 2014. More this ratio decreases; more the institution becomes able to meet its short term and long term obligations (solvability). But the ratio short term liabilities/Total liabilities shows that CLECAM EJOHEZA KAMONYI had the problem of mobilization of long-term external funds because in all liabilities, short term were above 84% except in 2012 where this ratio was 61%.

In addition, the analysis shows that the deposits were 89% of total



liabilities in 2010, 86% of total liabilities in 2011, 79% of all liabilities in 2012, 85% of all liabilities in 2013 and 81% of all liabilities in 2014. This situation is very beneficial to this institution because normally the deposits are not very expensive in comparison with other external funds like borrowers.

Profitability: About the profitability of CLECAM EJOHEZAKAMONYI, the Net Margin ratio was calculated to show the financial performance of the microfinance for the period from 2010 to 2014. The findings show that CLECAM EJOHEZA KAMONYI was profitable from 2010 to 2014 where the Net Margin was 30% in 2010, 42% in 2011, 28% in 2012, 22% in 2013 and 20% in 2014. This ratio has been decreased in 2013 and 2014. Though the ratio is fluctuating, the normal condition of the profitability is respected as the ratio is above 10% (threshold of normal net margin). The analysis of the financial statement of this institution indicated that the net income in 2013 and 2014 has been decreased by the payment of income tax.

In addition, the Operating Margin which measure the percentage of financial income remained after the payment of financial and operating expenses (Net operating Margin/Financial income), is positive for the period of research but as habitude in 2013 and 2014 this ratio has been decreased due to fluctuations in net income. The cost of clients deposit was not significant from 2010 to 2014 and was 0.2% in 2011, 0.25 in 2012, 0.3 in 2013 and 0.2% in 2014. But the cost of borrowed funds was high in comparison with the cost of client's deposits.

Relationship between financial inclusion and financial performance

The empirical analysis of the effect of financial inclusion on the financial performance of CLECAM EJOHEZA KAMONYI revealed that the deposits depends on the number of members of CLECAM EJOHEZA KAMONYI, but, according to the results; the number of branches does not affect the deposits of CLECAM EJOHEZA KAMONYI. When the number of members increases by 1%, the deposits grow by 1.267% ceteris paribus. This shows how much CLECAM EJOHEZA KAMONYI has to enhance its mobilization so as to increase its members which entails the performance of deposits.

The number of branches/outlets affects positively the operating expense (the probability of the estimated parameter is less than 5%) while the number of members does not! When the number of branches increases by 1%, the operating expense of CLECAM EJOHEZA KAMONYI grows by 0.112 ceteris paribus. Though the sign is positive, the variable of number of branches creates expenses to CLECAM

EJOHEZA KAMONYI which affect negatively the net income of the microfinance.

The findings showed that the number of active debtors, loan disbursed and portfolio rotation have positive effects (positive sign) on the Operational self-sufficiency of CLECAM EJOHEZA KAMONYI at 5% level of significance. The probability of their estimated parameters is less than 5%. Therefore the following interpretation is made:

- When number of active debtors increases by 1%, the Operational self-sufficiency increases by 0.7% ceteris paribus.
- When the loan disbursed increases by 1%, the Operational self-sufficiency increases by 0.41% ceteris paribus.
- When the portfolio rotation increases by 1%, the Operational self-sufficiency increases by 0.38% ceteris paribus
- The expected sign matches with the estimated sign.

These variables should be controlled in CLECAM EJOHEZA KAMONYI and held at a constant threshold to allow a continued financial performance. Having a big number of active debtors, a rising loan disbursed and high portfolio rotation increases the Operational self sufficiency of CLECAM EJOHEZA KAMONYI [15].

According to the results the number of debtors, loan disbursed and portfolio rotation do not have effect on the portfolio yield of CLECAM EJOHEZA Kamonyi as long as the probabilities of their estimated parameters are greater than 5% level of significance. It means that portfolio yield was influenced by other variables which are not included in the regression model. The lack of statistical inference in this model may be resulted from the short period of study (5years), if the period of study (sample size above or equal to 15) is expanded, then an interpretation would be made without some reserves (Appendix 1).

The loan disbursed and portfolio rotation does not have statistical effect at 5% level of significance on the portfolio at risk of CLECAM EJOHEZA Kamonyi. Only the number of active debtors has effects on the portfolio at risk at 5% level of significance. Therefore when the number of active debtors increases by 1%, the portfolio at risk decreases by 1.25% ceteris paribus.

In this research, we computed the correlation between Net income and deposits of CLECAM EJOHEZAKAMONYI to see if the evolution of deposits in CLECAM EJOHEZAKAMONYI is related to the net income from 2010- 2014. The deposits show the usage of products and services of CLECAM EJOHEZA. The correlation coefficient is close to +1 and the deposits are correlated to net income at 92.6%.

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