Establishing the Relationship between Credit Risk Assessment and Financial Performance of SACCOs in Rwanda, Ngororero District

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Abstract:- **The study set out to investigate the Relationship between credit risk assessment and financial performance of SACCOs in Rwanda. Ngororero District. The study adopted cross-sectional and correlational research designs on a sample of 30 respondents using a self-administered and an interview guide. Data were analysed using both quantitative and qualitative data methods. Quantitative data were analyzed using descriptive and inferential statistics in SPSS (21.0) while qualitative data was thematically integrated into quantitative results after content analysis. The study established a positive significant correlation (r=0.245, p<0.05) between credit risk assessment and the financial performance of SACCOs. It was concluded that improving on credit risk assessment would significantly improve on the financial performance of SACCOs in Rwanda, Ngororero District. It was recommended that The management of SACCOs therefore should Employ technically capable professionals to accurately ascertain amount of loan exposed to default and make timely provisions for such losses in their accounting reports so as the prudently report returns and profits.**

Key words: **Credit risk assessment, Financial Performance.**

I. INTRODUCTION

Effective credit risk management through Credit risk assessment, risk assessment and credit monitoring with the oversight of a well-established credit management structure enhances the performance of lending institutions (Basel Committee on Bank Supervision, 2003; Brealey, *et al.,* 2008; Hoque, 2015). Despite the emphasis put on credit risk management through credit risk identification, to enhance the financial performance of SACCOs, undesirable financial performance continues to affect SACCOs in Rwanda, Ngororero District.

Theoretical Review

The theory that underpinned this study was the Harry Markowitz's modern portfolio theory (MPT). The theory provides a framework for specifying and measuring investment risk and to develop relationships between risk and expected returns. Its main basic assumption is that investors often want to maximize returns from their investments for a given level of risk (Brealey, Myers & Allen, 2008). The MPT assumes the principle of diversification where an investor can reduce portfolio risk simply by holding combinations of loan assets that are not perfectly positively correlated. In other words, investors can reduce their exposure to individual asset risk by holding a diversified portfolio of assets. Diversification may allow for the same portfolio expected return with reduced risk (Reilly & Brown, 2011).

II. REVIEW OF RELATED LITERATURE

Credit risk assessment and financial performance of SACCOs

Credit risk assessment models often consider the impact of changes to borrower and loan-related variables such as the probability of default, loss given default, exposure amounts, collateral values, rating migration probabilities and internal borrower ratings (Sirohi & Chauhan, 2015).

According to the Basel Committee for Banking Supervision (2006), effective credit risk assessment and loan accounting practices should be performed in a systematic way and in accordance with established policies and procedures. To be able to prudently value loans and to determine appropriate loan loss provisions, it is particularly important that lending institutions have a system in place to reliably classify loans on the basis of credit risk. Larger loans should be classified on the basis of a credit risk grading system.

Other, smaller loans, may be classified on the basis of either a credit risk grading system or payment delinquency status. Both accounting frameworks and Basel II recognise credit grading systems as tools in accurately assessing the full range of credit risk. Further, Basel II and accounting frameworks both recognise that all credit classifications, not only that reflecting severe credit deterioration, should be considered in assessing probability of default and loan impairment (Sirohi & Chauhan, 2015).

According to Chirinko and Guill (1991), a well-structured credit risk grading system is an important tool in assessing the degree of credit risk in the various credit exposures of the lending institution. Credit exposure is the maximum amount that will be lost if the counter party to a contract defaults. This allows a more accurate determination of the overall characteristics of the loan portfolio, probability of default and ultimately the adequacy of provisions for loan losses. In describing a credit risk grading system, a financial institution

should address the definitions of each credit risk grade and the delineation of responsibilities for the design, implementation, operation and performance of the system.

Credit risk assessment systems typically take into account a borrower's, the current financial condition and paying capacity, the current value and reliability of collateral and other borrower and facility specific characteristics that affect the prospects for collection of principal and interest. Because these characteristics are not used solely for one purpose (eg credit risk or financial reporting), a financial institution may assign a single credit risk grade to a loan regardless of the purpose for which the grading is used (Sirohi & Chauhan, 2015).

Both Basel II and accounting frameworks recognize the use of internal (or external) credit risk grading systems in determining groups of loans that would be collectively assessed for loan loss measurement. Thus, a lending institution such as a bank may make a single determination of groups of loans for collective assessment under both Basel II and the applicable accounting framework (Lawrence, Smith & Rhoades, 1992).

According to McAllister and Mingo (1994), credit risk assessment should be reviewed and updated whenever relevant new information is received. Loans to which credit risk grades are assigned should receive a periodic formal review (eg at least annually) to reasonably assure that those grades are accurate and up-to-date. Credit risk grades for individually assessed loans that are either large, complex, higher risk or problem credits should be reviewed more frequently.

Saunders (1997), states that credit risk assessment and loan loss provisioning may involve risk measurement models and assumption-based estimates. Models may be used in various aspects of the credit risk assessment process including credit scoring, estimating or measuring credit risk at both the individual transaction and overall portfolio levels, portfolio administration, stress testing loans or portfolios and capital allocation. Saunders (1997) further posits that credit risk assessment models often consider the impact of changes to borrower and loan-related variables such as the probability of default, loss given default, exposure amounts, collateral values, condition for the use of the loan, rating migration probabilities and internal borrower ratings.

For groups loans that are collectively assessed for impairment, Saunders (1997) estimated credit losses should reflect consideration of the bank's historical net charge-off rate of the groups, adjusted upward or downward for changes in trends, conditions and other relevant factors that affect repayment of the loans in these groups as of the evaluation date. The scholars further states that the methodologies for the determination of the historical net charge-off rate on a group of loans can range from a simple average of an bank's net charge-off experience over a relevant credit cycle coupled with appropriate adjustments as noted above for factors that

affect repayment to more complex techniques, such as migration analysis or models that estimate credit losses.

Therefore, risk assessment will inform the lending organisation the magnitude of the risk involved and hence enable provision for such losses through a critical determination of the loan amount to be advanced and the interest rate which reduce the risk of default and increase profitability of lending hence keeping the lending institution solvent and operational.

Financial performance

The financial performance is the ability of the lending institution to earn the expected return from the credit advanced to borrowers and also to ensure that the principal is recovered in the specified time period (Brealey, Mayers& Allen, 2010). Furthermore, Brealey, *et al.* (2010) further point out that the specific indicators of financial performance include profitability or return on assets as indicated by interest income less collection costs, default rates and loan recovery rate. In concurrence with Brealey, *et al. (2008),* the International Monetary Fund (IMF, 2012) states that the financial performance of the lending institutions is indicated by any loan in which: payments, interest are less than 90 days past due, has not been placed on non-accrual or workout status and all interest has been refinanced together with continuous payment.

III. METHODOLOGY

The study adopted the cross-sectional and correlational research designs to examine the situation as it existed in its environment. The cross-section design allowed collection of data using different modes of data collection such as self-administered questionnaires and face-to-face interviews (Williams, 2011). In addition, the study being cross-sectional, data gathered represents what is going on at a particular point in time thus helping to obtain useful data in a relatively short period saving time and costs of data collection (Bordens & Abbott, 2011). With respect to the correlational design, this involved exploration of the correlation between the risk assessment and financial performance of SACCOs (Williams, 2011). The study used both quantitative and qualitative approaches of data collection. Quantitative data was the basis for drawing statistical inferences by relating the independent and dependent variables. Qualitative data supplemented the quantitative data by providing detailed information in form of statements from interviews for in-depth analysis.

Sample size determination and sampling method

A study sample of 30 respondents were purposively and systematically selected. This sample was arrived at using Krejcie & Morgan (1970).Using Simple random sampling and purposive sampling methods were used for the study because simple random sampling ensured that each individual is chosen randomly and entirely by chance, thus giving each individual in the population the same probability of being chosen for the study (Onen, 2005) and Purposive sampling

was used to select particular people to provide in-depth views since the study was both quantitative and qualitative(Patton, 2003).

Data Analysis

Data were collected using self-administered structured questionnaire, interview guide and through documentary review. Quantitative data were analyzed using descriptive and inferential statistics in SPSS (21.0) while qualitative data was thematically integrated into quantitative results after content analysis.

IV. RESULTS AND DISCUSSION

Credit risk assessment

This subsection presents descriptive statistics on risk assessment in SACCOs in Rwanda, Ngororero District. The results are summarized in Table 1:

Table 1: Descriptive Statistics on credit risk assessment					
	N	Min.	Max.	Mean	Std. Dev.
This SACCO assesses credit exposure before extending the loan to the borrower	28	1.00	4.00	1.9877	.51220
This SACCO assesses the ability of the borrower to pay interest before extending the loan to the borrower	28	1.00	5.00	3.8272	.68539
This SACCO accurately assesses the collateral value before extending the loan to the borrower	28	1.00	5.00	2.4148	.89598
This SACCO assesses probability of default of the principal amount before extending the loan to the borrower	28	1.00	5.00	2.2222	.68920
This SACCO makes a provision for the loss in case of loan default before extending the loan to the borrower	28	1.00	5.00	2.2099	.89045

Source: Primary data (2018).

The results in Table 1show that the respondents disagreed (mean=1.9877) that SACCOs assess credit exposure before extending the loan to the borrower, but agreed (mean=3.8272) that SACCOs assess the ability of the borrower to pay interest before extending the loan. The result further indicate that the respondents disagreed (mean=2.4148) that SACCOs accurately assess the collateral value before extending the loan to the borrower, but disagreed (mean= 2.2222) that SACCOs assess the probability of default of the principal amount before extending the loan to the borrower. Furthermore, the results indicate that the respondents disagreed (mean=2.2099) that SACCOs provide for the loss in case of loan default before extending the loan to the borrower.

Qualitative findings from KIIs affirmed the above quantitative results that there is laxity are SACCOs assessment of credit risk. Particularly, Key Informants (KIs) concurred that techniques of estimating the amount loan exposed to default risk are difficult to implement due to lack of the technical ability of these organisations. In addition, a key informant stated:

> *"Most SACCOs cannot accurately assess collateral value given the fact that most assets pledged as collateral in these rural based SACCOs and particularly land appreciates every time and as such capturing the values over the life of the loan cannot be accurate." (June 29, 2018).*

It is deduced from the findings that the strong aspect of credit assessment by the SACCOs in Ngororero District is their capability to assess the ability of the borrower to pay interest before extending the loan while the weak aspects are failure to ascertain the amount of loan exposed to default and providing for such losses in their accounting system and failure to accurately ascertain the value of collateral**.**

		Risk assessment
Risk assessment	Pearson Correlation	1
	Sig. (2-tailed)	
	N	81
Financial Performance	Pearson Correlation	.245[*]
	Sig. (2-tailed)	.027
	N	28

Source: Primary data (2018)

Relationship between credit risk assessment and the financial performance of SACCOs

The results in Table 2 show that there is a positive significant correlation (r=0.245, p<0.05) between credit risk assessment and the financial performance of SACCOs. Therefore, the study hypothesis one that there is no significant relationship between credit risk assessment and the financial performance of SACCOs is rejected and the alternative hypothesis is accepted.

The results suggest that credit risk assessment practices in SACCOs in Ngororero District are positively related to their financial performance. The relationship is however weak implying that continuing with these practices will slightly improve the financial performance of SACCOs. This weak

relationship is attributed to the failure of SACCOs to accurately ascertain the amount of loan exposed to default and provide for such losses in their accounting system and failure to accurately ascertain the value of collateral strong. Qualitative findings for instance cited out that in cases of where collateral have changing values due to inflation, appreciation or depreciation, it becomes very difficult for the credit section to accurately ascertain the value at the time of expiry of the loan period. Ultimately, SACCOs find themselves making losses when they sell collateral whose value has depreciated beyond the expected value at the expiry of the credit period.

Qualitative findings through KIIs in concurrence with the quantitative results established that SACCOs lack the skills and techniques to evaluate these aspects. This could be attributed management laxity in recruiting employees with such technicalities and specially professionals in the of credit risk management despite employing, on average highly educated employees. Contrary to the assertion by Chirinko and Guill (1991), Sirohi and Chauhan, (2015) and Saunders (1997), the results suggest that SACCOs in Ngororero District largely do not adhere to the criteria of credit risk assessment and particularly assessing of credit exposure, accuracy in assessment of collateral value, assessment of the likely probability of default of the principle amount and provision for such loan default. In addition, this makes delineation of responsibilities for the design, implementation, operation and performance of the system difficult and as such bad debts and NPLs may accumulate without the knowledge of the management and the organization at large.

V. CONCLUSION AND RECOMMENDATIONS

Conclusion

Generally, it is concluded that improving on credit risk assessment would significantly improve on the performance of SACCOs in Ngororero District. The credit risk assessment systems need an overhaul to eliminate its negative contribution to financial performance.

Recommendations

The management of SACCOs therefore should: Employ technically capable professionals to accurately ascertain amount of loan exposed to default. Secondly, make timely provisions for such losses in their accounting reports so as the prudently report returns and profits.