

# Credit Risk Management and Financial Performance of Savings and Credit Cooperatives in Bushenyi District

Elias Mugooha\*, Dr. Mohammad Ssendagi

*School of Graduate Studies and Research, Team University, Plot 446, Kabaka Ajagara.rd, Kampala-Uganda*

*\*Corresponding Author*

**Abstract:** The study investigated the relationship between credit risk management and the financial performance of SACCOs in Bushenyi District. Specifically, the study examined the relationship between credit risk identification and financial performance, established the relationship between credit risk assessment and financial performance, investigated the relationship between credit monitoring and financial performance of SACCOs in Bushenyi District and investigated the moderating influence of management structure. A cross sectional case study design which was both quantitative and qualitative in approach was used to study a sample of 86 respondents who were purposively and systematically selected. This sample was arrived at using Krejcie & Morgan (1970) Table for sample size determination. Data was collected using self-administered structured questionnaire, interview guide and documentary review. Quantitative data were analyzed using descriptive and inferential statistics in SPSS (21.0 version) while qualitative data was thematically integrated into quantitative results after content analysis. Generally, the study established a positive significant relationship ( $r=0.633$ ,  $p<0.01$ ) between credit risk management and the financial performance of SACCOs. Specifically, the study established a negative significant correlation ( $r=-0.492$ ,  $p<0.01$ ) between credit risk identification and the financial performance of SACCOs, a positive significant correlation ( $r=0.245$ ,  $p<0.05$ ) between credit risk assessment and the financial performance of SACCOs and a positive significant correlation ( $r=0.245$ ,  $p<0.01$ ) between credit risk monitoring and the financial performance of SACCOs. It was concluded that improving on credit risk management would significantly improve on the financial performance of SACCOs in Bushenyi District. The researcher recommended that credit risk assessment and credit risk monitoring be improved in order to improve the financial performance of SACCOs while credit risk identification process be overhauled in order to eliminate its negative contribution. It was further recommended that the oversight role of management should be aligned with specific areas of risk management such as consumer or commercial loans risk for it has a significant contribution on the financial performance of these institutions,

**Keywords:** credit risk management, credit risk identification, credit risk assessment, credit monitoring and financial performance.

## I. INTRODUCTION

### 1.1 Background to the study

The growth in management of credit risk is among the most significant developments in commercial banking in the past 20 years. These developments hold the potential to permanently reduce the risk profile and improve the financial performance of commercial banks (Berger & Udell, 2003). Ultimately, credit management policy grew out of the need to improve the financial performance of the large corporate loan portfolios in lending institutions. It is however, paradoxical that credit risk management among portfolios is still the biggest problem hindering the financial performance of most lending institutions and Savings and Credit Cooperatives (SACCOs) in particular leading to their ultimate failure (Fallon, 2016). There is therefore need for further research to explore the relationship between credit risk management and financial performance of SACCOs.

This study undertook the Harry Markowitz's portfolio theory as propounded in 1950s which states that the selection of portfolios will maximize the expected returns consistent with the acceptable levels of risk (Brealey, Myers & Allen, 2008). The theory provides a framework for specifying and measuring investment risk and to develop relationship 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. The full spectrum of investments must be considered because the returns from all these investments interact hence the relationship between the returns for assets in the portfolio is important (Reilly & Brown, 2011). In the context of this study, the theory suggests that SACCOs should give credit portfolios that will maximize returns at the acceptable levels of credit risk that will not lead to their failure. Hence the theory suggests that the financial failure of SACCOs is attributed to high credit risk which reduces the rate of returns on the portfolio.

Credit risk is defined as the potential that a borrower or counterparty will fail to meet its obligations in accordance with agreed terms (Brealey, *et al.*, 2008). Relatively, the Basel Committee on Banking Supervision (2003) defines credit risk as the potential that a bank borrower or counterparty will fail

to meet its obligations in accordance with agreed terms. According to the Basel Committee on Bank Supervision (2006), credit risk is most prominent in financial institutions and its effect on the financial performance of these institutions is more significant as compared to other risks as it directly threatens its solvency. While financial institutions have faced difficulties over the years for a multitude of reasons, the major cause of credit risk continue to be directly related to laxity in its management and particularly setting credit standards for borrowers, setting credit terms and collection policy (Basel Committee on Bank Supervision, 2003).

Adequacy, asset quality, management efficiency, earnings, liquidity and sensitivity (to systemic-risk or market interest rates) commonly referred to as CAMELS model (Van Greuning & Bratanovic, 2008). However, capital adequacy, assets quality, earnings and liquidity have been singled out from the model the ideal measures of financial performance of a lending institution (Daley-Harris, 2007). These proxy variables are the ones that were adopted in measuring the financial performance of the SACCOs in this study.

Over the past one and a half decades, the financial sector in Uganda has been dominated by commercial banks, Pension funds and Mortgage houses which have roots to the colonial period and were historically oriented towards meeting the financial needs of external trade and largescale commerce (Nuwagaba, 2012). These financial institutions do not therefore have a track record of lending to households and start-up Small Enterprises. When the Government of Uganda recognized this shortfall, it embarked on restoration of cooperatives which had been eliminated for reasons of financial failure during the 1980 and initiatives such as savings and credit cooperatives (SACCOs) are currently in place to facilitate small scale lending (Bank of Uganda, 2016). Savings and Credit Co-operatives (SACCOs) are community membership-based financial institutions that are formed and owned by their members in promotion of their economic interests. These institutions mobilize and intermediate savings exclusively with in their membership under the co-operative statute 1991. Furthermore, they are one of the several types of cooperatives that are unique micro finance institutions categorized under tier four in the financial market and therefore not regulated by Bank of Uganda (BoU, 2016).

Like in most the other Districts in Uganda, a number of SACCOs are been operational in Bushenyi District in Western Uganda. At a glance, the SACCOs in Bushenyi have an average of sh350m in savings each, compared to SACCOs in Acholi and Lango (sh80m) or Buganda (sh200m). Top SACCOs in Bushenyi, like Kitagata Financial Services Cooperative Society Ltd, has got a share capital of sh322m, voluntary savings of sh327m and a loan portfolio of sh698m from 2,833 members. Kyamuhunga SACCO has 2,257 members, sh 332m savings, and a share capital of sh330m and a loan portfolio of sh626m. Bunyaruguru has 2,060 members,

savings of sh174m and a loan portfolio of sh289m (New Vision, 1 August 2017).

Despite the stated promising performance, there is a concern about the credit management policy of SACCOs in the District as many members have accessed loans from the stated SACCOs at the same time and are failing to pay promptly which is affecting the quality of loan portfolio and returns on loan assets. For instance, it is indicated that during the financial year 2013/2014, three SACCOs in the district including Kyambura, Rukoma and Kyangyenyi have ceased their operations (Team & Co certified public accountants, 2014). In the financial year, 2015/2016, the default rates increased from 8% to 12% basing on loan aging in Ishaka SACCOs, from 15% to 25% from 11% to 15% in Kyamuhunga SACCO, from 10% to 17% in Bunyaruguru SACCO, Nyakabirizi SACCO from 15% to 26 and 11% to 24% Rwenjeru SACCO due to the effect of multiple borrowing (Byabashaija, Mbyemeire & Kikanga, 2017). This questioned the credit risk management and unless there was an urgent intervention, this might further adversely affect the financial performance of these SACCOs in the long run.

### *1.2 Purpose of the study*

The purpose of the study was to investigate the relationship between credit risk management and financial performance of SACCOs in Bushenyi District.

#### *1.2.1 Objectives of the study*

The study was guided by the following objectives:

- i. To examine the relationship between credit risk identification and financial performance of SACCOs in Bushenyi District.
- ii. To establish the relationship between credit risk assessment and financial performance of SACCOs in Bushenyi District.
- iii. To investigate the relationship between credit monitoring and financial performance of SACCOs in Bushenyi District.

### *1.3 Scope of the study*

The study focused on credit management and loan performance. Credit risk management, the independent variable in this study was analyzed under three indicators: Credit risk identification, Credit risk assessment and Credit monitoring. Financial performance, the dependent variable was measured using loan recovery rate /loan default rate, return on loan assets and liquidity. The study also investigated the moderating influence of the management structure and particularly the reporting relationships of loans management and existence of a functioning credit section.

The study was conducted in Bushenyi District in Western Uganda. The study further considered the time period of 2012-2017 because this is when the loan performance of the SACCOs in the district indicated signs of inefficiencies with

anecdotal evidence pinpointing to the credit risk management in these SACCOS as the major challenge (Byabashaija, *et al.* 2017; New Vision, 1 August 2017).

1.4 Significance of the study

The study findings would help evaluate and document credit risk management challenges experienced by SACCOS and hence be a basis for designing appropriate policies to guide these lending institutions about credit risk minimization in order to enhance their financial performance.

Furthermore, study findings will enable the management of SACCOS in Bushenyi District to review its credit management system basing on research findings hence making informed decisions on how to improve on it and ultimately the financial performance of the SACCOS.

1.5 The Conceptual Framework

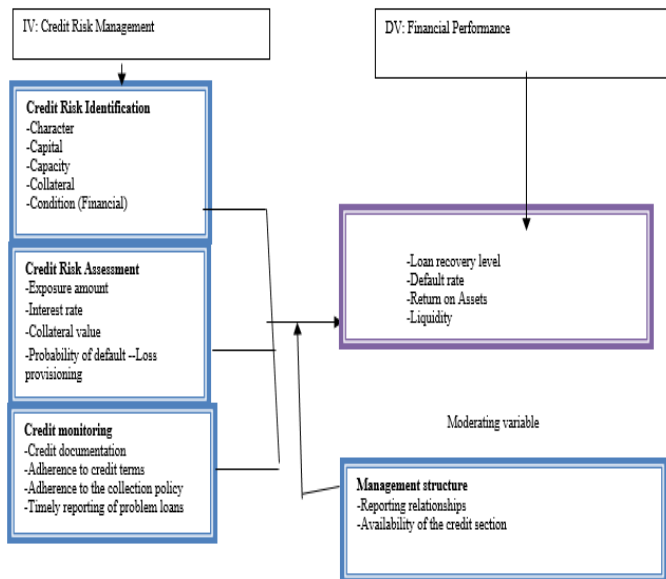


Figure 1: Conceptual framework. Source: Derived from the review of concepts, theories and related literature in concurrence with Van Grueing and Brantanovic (2008).

The conceptual frame work shows that credit management has a relationship with loan performance. It is postulated that if SACCOS properly manage credit risk through credit risk identification, credit risk assessment and credit monitoring the sub-variables indicated, as defined, their financial performance in terms of loan recovery rate, loan default rate, return on loan assets and liquidity would improve. The absence/inadequacy of this ideal credit risk management may lead to declining financial performance. Hence the relationship between credit risk management may be positive or negative (Kagoyie & Shukla, 2016). It is further postulated that the relationship between the two variables might be moderated by management structure such that the existence of clear reporting relationships and credit section might enhance proper monitoring of the credit management which might

reduce the credit risk and improve the financial performance of the lending institution and vice versa.

II. METHODOLOGY

2.1 Research Design

The study adopted a cross sectional descriptive survey design that was both quantitative and qualitative. A cross sectional design was used because it collects data in the quickest possible time (Sekaran, 2003). A quantitative approach allowed precision in the measurement of the variables (Amin, 2005), whereas the qualitative approach enabled detailed investigation of the study issues through probing (Creswell, 2014).

2.2 Study Population

The study population included some SACCOS in Bushenyi District. These were Nyakabirizi SACCO, Ishaka SACCO, Rwenjeru SACCO, Kyamuhunga SACCO, Kyabugimbi SACCO and Butoro SACCO, Kitagata SACCO, Bunyarugura SACCO among others (BOU, 2017). The credit officers and senior management were the target respondents. The respective study populations, samples and the overall sample size are indicated in Table 1 below.

2.3 Sample size and Sampling techniques

A total sample of 101 out of 129 respondents was studied from selected seven selected SACCOS. These SACCOS were; Nyakabirizi, Ishaka, Rwenjeru, Kyamuhunga, Kayanja, Kitagata, Bunyarugura, Butoro and Kyabugimbi. These SACCOS were purposively identified as they were highlighted as the ones facing the credit risk management challenge which is affecting their financial performance (BOU, 2017). The sample specifically included 92 credit officers and 9 senior management executives as the units of inquiry. This sample was arrived at using Krejcie & Morgan (1970) as shown in Appendix 1. The summary of study population, sample size and sampling techniques that were adopted are shown in Table 1 below.

Table 1: showing the sample size and the Sampling Techniques

Population category	Target population	Sample	Sampling Technique
Senior managers	9	9	Purposive Sampling
Credit officers	120	92	Systematic random sampling
Total	129	101	

Source: UBOS (2016) and modified by the researcher in line with Krejcie and Morgan (1970), cited in Amin (2005).

The researcher employed purposive sampling technique because it supported the choice of respondents who were carefully intentionally selected to provide the required information (Tongco, 2007). Whereas systematic sampling method enabled a balanced representation of the study. It ensured that all credit officers had an equal probability of being chosen for the study and as such, selection bias was

minimized. A sampling frame was generated by writing a random list of all credit officers and random picking of representatives who were included in the study sample was done (Mugenda & Mugenda 1999).

2.4 Data collection instruments and methods

The data collection methods that were used included a self-administered questionnaires and interviews. The selection of these methods was based on the nature of the data that was needed; the time available as well as the objectives of the study. The methods are briefly discussed in the following sub sections.

2.4.1 Self-administered questionnaire

A Self-Administered Questionnaire was used to collect quantitative data from the SACCOs credit officers. In this regard, Sekaran (2003) asserts that the main advantage of self-administered questionnaire is that the researcher can collect all the completed responses within a short period of time. The questions within the questionnaire were short and covered a wide area implying that less time was spent to collect comprehensive data (Creswell, 2014).

2.4.2 Face-to-face interviews

Face-to-face interviews were used to collect data from SACCOs top management or executives. The interviews enabled the researcher to establish rapport with those categories of respondents, gain their cooperation, and clarify ambiguous answers and ultimately enabled obtaining in-depth information through probing. In addition, the qualitative data that were collected using interview method complemented quantitative data that were collected using self-administered questionnaires to give more valid and reliable results (DiCicco-Bloom & Crabtree, 2006; Saunders, et al., 2009).

2.4.3 Documents review

A number of documents regarding credit risk management and the performance of SACCOs were reviewed. The purpose was to obtain relevant secondary data to supplement primary findings.

2.5 Validity and reliability

To ensure content validity, the data collection instruments were constructed in such a way that they had an adequate number of items and that each item or question on the scale was related to the objectives of the study and covered a full range of issues being measured. Thereafter, content validity index was computed using the following formula:

$$CVI = \frac{\text{Number of items declared valid}}{\text{Total number of items}}$$

Total number of items

The resultant index was measured against the ideal minimum of 0.70 to conclude on the validity of the contents of the instrument (Waltz, Strickland and Lenz, 2005). The validity results are summarized in Table 2 below.

Table 2: showing the Content Validity Results of the Measuring Instrument

Variables	Total Items Tested	Items valid	CVI
Questionnaire	26	23	0.884
Interview guide	15	13	0.867

Source: Primary Data 2018

The resultant indices were above the ideal minimum of 0.70 indicating that the items in the measuring instruments were valid (Waltz, Strickland & Lenz, 2005).

To ensure reliability, the data collection instruments were pre-tested on a small sample of the respondents from three SACCOs. Based on the data from the pilot study, the reliability of the instruments was tested using Cronbach’s Alpha Coefficient in the Statistical Package for the Social Scientists (SPSS) for internal consistency and inter-items correlations (DeVellis, 2003). The resultant alpha coefficients were measured against the minimum of 0.70 to conclude on reliability of the instrument (Drost, 2011; Tavakol & Dennick, 2011). The results are presented in Table 3.3:

Table 3: Showing the reliability Results.

Constructs	Items tested	Items deleted	Cronbach’s alpha
Questionnaire	26	2	0.842
Interview guide	15	3	0.777

Source: Primary Data, 2018

The results in Table 3 above show that the items retained met the minimum required coefficient of 0.7. The items therefore provided reliable results.

2.6 Data Analysis

The researcher computed the relationship between the study variables using Pearson Correlation Coefficient. Further, the researcher tested the hypotheses using linear regression analysis and analysis of variance (ANOVA) while multiple regression analysis was conducted to analyze the overall relationship between credit risk management and the performance of SACCOs and also to test the relative strengths of the predictor variables on the dependent variable (Zikmund, Babin, Carr, & Griffen, 2010). The resultant coefficients were fitted in the multiple regression model to come up with the model specification that relates the variables. The model specification for the particular variables in this study was as follows:

$$CRM = \beta_0 + \beta_1 CRI + \beta_2 CRA + \beta_3 CRM + \epsilon$$

Where: CRM is Credit Risk Management

CRI is Risk Identification

CRA is Credit Risk Assessment

CRM is Credit Risk Monitoring

$\beta_0$  = Constant parameter

$\beta_1, \beta_2, \beta_3$  = Coefficient of the independent variables/Regression parameters.

$\varepsilon$  = Probabilistic error term.

In order to estimate the influence of the independent on the dependent variable given the moderating management structure, a versatile computational tool for observed variable mediation, moderation and conditional process modelling was used (Hayes, 2012). Qualitative data was analyzed basing on content and thematically integrated with quantitative data. Where necessary, direct excerpts were used (Creswell, 2014).

### III. PRESENTATION, INTERPRETATION AND DISCUSSION OF RESULTS

#### 3.1 Analysis of the response rate

Table 4: showing the response rate

Category of respondents	Expected respondents	Actual Sample	Response rate
Managers	9	6	66.7%
Staff	92	81	88.0%
Total /Overall response rate	101	87	86.1%

Source: Primary data (2018)

The results in Table 4 above indicate that the response rate for the qualitative sample was 66.7% while for quantitative sample, the response rate was 88.0%. The response rates are above the recommended minimum ideal response rates of 60% for surveys to give generalizable results (Fincham, 2008). Hence the results are reliable to be inferred to the general population.

#### 3.2 Descriptive statistics

Descriptive statistics in this sub section are presented and discussed in accordance with the sub variables of the independent variable, the dependent variable and the moderating variable. These sub-variables include credit risk identification, credit risk assessment and credit risk monitoring, the performance of SACCOs and the management structure respectively. The interpretation of means is based on a five-point Likert scale ranging from 1= strongly disagree, 2 = disagree, 3 = not sure, 4 = agree, 5 = strongly agree (Amin, 2005).

##### 3.2.1 Credit risk identification

The results in this subsection explain the descriptive statistics on risk identification amongst SACCOs in Bushenyi District and they are as given in Table 5 below.

Table 5: Descriptive Statistics of credit risk identification

Measuring items	SD f(%)	D f(%)	N f(%)	A f(%)	SA f(%)	Mean	Std. Dev.
Management of this SACCO assesses the borrowers' character before advancing them loans.	12(14.8)	8(9.9)	6(7.4)	43(53.1)	12(14.8)	4.112	.925
SACCOs assess the borrowers' capacity before advancing him/her a loan	16(19.8)	4(4.9)	6(7.4)	9(11.1)	46(56.8)	4.716	.854
SACCOs require collateral from borrowers when they are to advance them loans	2 (2.5)	6(7.4)	11(13.6)	22(27.2)	40(49.4)	3.842	.840
SACCO management evaluates the borrowers' capital before advancing him/her a loan	38(46.9)	22(27.2)	2(2.5)	11(13.6)	8(9.9)	2.214	.726
SACCO management evaluates the borrowers' conditions and status before advancing him/her a loan	41(50.6)	19(23.5)	4(4.9)	10(12.3)	7(8.6)	1.765	.075

Source: Primary data (2018).

The study findings in table 5 revealed that respondents agreed (mean=4.112) Management of this SACCO assesses the borrowers' character before advancing them loans as further explained by a lower standard deviation of 0.926. on whether SACCOs assess the borrowers' capacity before advancing him/her a loan, respondents strongly agreed as given by mean=4.716 and standard deviation of 0.854. the researcher further assessed whether SACCOs require collateral from borrowers when they are to advance them loans and study findings indicated that respondents were in agreement as shown by a mean=3.842 and standard deviation of 0.84. more so, the researcher assessed whether SACCO management

evaluates the borrowers' capital before advancing him/her a loan and study findings indicated a disagreement as given by a mean of mean= 2.214. lastly, the study investigated whether SACCO management evaluates the borrowers' conditions and status before advancing him/her a loan and study findings revealed a strong disagreement of a mean of 1.765 and low standard deviation of 0.075.

The overall mean interpretation regarding credit risk identification is based on the statistics provided in Table 6 below:

Table 6: Overall mean results on Credit Risk Identification

Statistic		Value
Mean		3.3301
95% Confidence Interval	Lower Bound	3.2924
	Upper Bound	3.5356
Minimum		1.0000
Maximum		4.8000
Range		3.8000

Source: Primary data (2018).

The results in Table 6 show that the overall mean value regarding credit risk identification in Selected SACCOs was 3.3301. This mean value suggests that respondents were generally neutral regarding credit risk identification by SACCOs in Bushenyi District. This implies that SACCOs do not regularly conduct risk identification; they do some times conduct risk identification exercise some times while they do not at other times. The lower and upper bounds indicate that the mean results for observations were falling between 3.2924 and 3.5356, 95% of the time for all the while 5% were the extremes that were either below the lower bound or above the upper bound as indicated by the minimum and maximum mean values of 1.000 and 4.8 respectively. The results further suggest that extreme cases of observations which occurred by chance were few and as such the reported mean is highly

reliable for the inference to be made to the whole population of SACCOs in Bushenyi District.

The study findings are further supported by the results from the key interview from one of the credit officers who was quoted saying

*“What we consider most is character, capacity and collateral values. From our experience, our clients have demonstrated that they meet the put by these 3Cs, they automatically pass the capital and condition tests (June, 22<sup>nd</sup> 2018).*

Whereas the results concur with the with the assertions by Van Horne (2004), Altman, *et al.* (1995) and Delis, *et al.* (2016) ideal credit risk identification, they contradict with findings by Brealey, *et al.*, (2010) and institutions such as the Basel Committee on Banking Supervision (2006) that evaluation of the capital and the condition of the business of the borrower are important aspects to identify the credit risk. It is thus deduced from the findings that strong aspects in credit risk identification by the SACCOs in Bushenyi District are evaluation of borrower’s character, capacity and collateral, while the weak aspects are the reluctance of SACCOs to evaluate the capacity and condition of the borrowers.

### 3.2.2 Credit risk assessment

This subsection presents descriptive statistics on risk assessment in SACCOs in Bushenyi District. The results are summarized in Table 7 below:

Table 7: Credit risk assessment of SACCOs in Bushenyi District

Measuring items	SD f(%)	D f(%)	N f(%)	A f(%)	SA f(%)	Mean	Std. Dev.
This SACCO assesses credit exposure before extending the loan to the borrower	36(44.4)	21(25.9)	7(8.6)	5(6.2)	12(14.8)	1.988	.512
This SACCO assesses the ability of the borrower to pay interest before extending the loan to the borrower	9(11.1)	4(4.9)	11(13.6)	9(11.1)	44(54.6)	3.827	.685
This SACCO accurately assesses the collateral value before extending the loan to the borrower	18 (22.2)	27(33.3)	8(9.9)	15(18.5)	13(16.0)	2.415	.896
This SACCO assesses probability of default of the principal amount before extending the loan to the borrower	23(28.4)	25(30.9)	10(12.3)	10(12.3)	13(16.0)	2.222	.689
This SACCO makes a provision for the loss in case of loan default before extending the loan to the borrower	21(25.9)	29(35.8)	11(13.6)	13(16.0)	7(8.6)	2.200	.891

Source: Primary data (2018).

The results in Table 7 show that the respondents disagreed (mean=1.988) that SACCOs assess credit exposure before extending the loan to the borrower, but agreed (mean=3.827) that SACCOs assess the ability of the borrower to pay interest before extending the loan. The result further indicate that the respondents disagreed (mean=2.415) that SACCOs accurately assess the collateral value before extending the loan to the borrower, but disagreed (mean= 2.222) 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=2.200) that SACCOs provide for the loss in case of loan default before extending the loan to the borrower. The overall mean interpretation regarding credit risk assessment is based on the statistics provided in Table 8 below:

Table 8: Overall mean results on Credit Risk Assessment

Statistic		Value
Mean		2.5324
95% Confidence Interval	Lower Bound	1.3321
	Upper Bound	3.1860
Minimum		1.0000
Maximum		4.8000
Range		3.8000

Source: Primary data (2018).

The results in Table 8 show that the overall mean value regarding credit risk assessment in Selected SACCOs was 2.5324. This mean value suggests that respondents were

generally neutral regarding credit risk assessment by SACCOs in Bushenyi District. The results imply that SACCOs do conduct risk assessment sometimes while they do not carry out risk assessment at some other time. The lower and upper bounds indicate that the mean results for most observations were lying between 1.3321 and 3.1860, 95% of the time for all the while 5% were the extremes that were either below the lower bound or above the upper bound as indicated by the minimum and maximum mean values of 1.000 and 4.800 respectively. The results further suggest that extreme cases of observations which occurred by chance were few and as such the reported mean is highly reliable.

### 3.2.3 Credit risk monitoring

This subsection presents descriptive statistics on credit monitoring of SACCOs in Bushenyi District.

Table 9: Credit monitoring of SACCOs in Bushenyi district

Measuring items	SD f(%)	D f(%)	N f(%)	A f(%)	SA f(%)	Mean	Std. Dev.
SACCO management ascertains a complete documentation of credit for every SACCO client	24(29.6)	21(25.9)	8(9.9)	11(13.6)	17(21.0)	2.247	.859
SACCO management always adhere to the credit terms before and when lending	26(32.1)	21(25.9)	10(12.3)	9(11.1)	15(18.5)	2.185	.654
SACCO management emphasizes timely reporting of any loan hindrances	20 (24.7)	23(28.4)	12(14.8)	10(12.3)	16(19.8)	2.148	.654
SACCO management always sticks to the credit policy in relation to lending	27(33.3)	22(27.2)	10(12.3)	10(12.3)	12(14.8)	1.938	.532

Source: Primary data 2018

Study findings in table 9 above revealed that respondents were in disagreement with the statement SACCO management ascertains a complete documentation of credit for every SACCO client as given by a mean of 2.247. In addition, the study findings showed another disagreement that SACCO management doesn't adhere to the credit terms before and when lending as given by a mean of 2.185 and the standard deviation of 0.54. Further, the researcher investigated whether SACCO management emphasizes timely reporting of any loan hindrances and study findings were also in disagreement as given by the mean of 2.148. Lastly, results also revealed a disagreement that SACCO management always sticks to the credit policy in relation to lending as given by the lowest mean of 1.938 and standard deviation of 0.532.

This implies that all the credit risk monitoring tools are not adhered to hence shortages in money recoveries by some credit officers in Bushenyi District.

To ascertain the position of credit risk monitoring in SACCOs, overall mean was computed and the results are provided in Table 10 below.

Table 10: Overall mean results on Credit Risk Monitoring

Statistic		Value
Mean		2.1296

95% Confidence Interval	Lower Bound	1.2325
	Upper Bound	2.9366
Minimum		1.0000
Maximum		5.0000
Range		4.0000

Source: Primary data (2018).

The results in Table 10 show that the overall mean value regarding credit risk monitoring in Selected SACCOs was 2.1296. This mean value suggests that respondents generally disagreed regarding credit risk monitoring by SACCOs in Bushenyi District. The results imply that SACCOs do not effectively monitor credit risk. The lower and upper bounds indicate that the mean results for most observations were lying between 1.2325 and 2.9366 with 95% of the time for all while 5% were the extremes that were either below the lower bound or above the upper bound as indicated by the minimum and maximum mean values of 1.0000 and 5.0000 respectively. The results further suggest that extreme cases of observations which occurred by chance were few and as such the reported mean is highly reliable.

3.2.4 Financial Performance of SACCOs

This subsection presents descriptive statistics on the financial performance of SACCOs in Bushenyi District. The results are summarized in Table 11 below.

Table 11: Descriptive statistics on the financial performance

Measuring items	SD f(%)	D f(%)	N f(%)	A f(%)	SA f(%)	Mean	Std. Dev.
SACCO management mostly attains the desired credit recovery rate for the period of 2012-2017	30(37.0)	17(21.0)	8(9.9)	8(9.9)	18(22.2)	2.161	.697
SACCO management always minimized the loan default rate to the desired level for the period of 2012-2017	27(33.3)	25(30.9)	10(12.3)	8(9.9)	11(13.6)	2.000	.000
SACCO management has always achieved the desired returns on assets for the time period of 2012-2017	16(19.8)	32(39.5)	16(19.8)	6(7.4)	11(13.6)	2.111	.670
SACCO management always achieved the liquidity level desired for the period of 2012-2017	19(23.5)	33(40.7)	12(14.8)	7(8.6)	10(12.3)	2.086	.479

Source: Primary data, 2018

Results from the study findings in table 11 revealed a disagreement that SACCO management doesn't most times attain the desired credit recovery rate for the period of 2012-2017 as given by a mean of 2.161. Study findings on SACCO management always minimizing the loan default rate to the desired level for the period of 2012-2017 revealed also a disagreement with a mean of 2 and 0 standard deviation. The researcher in addition, investigated whether SACCO management always achieved the liquidity level desired for the period of 2012-2017 and results indicated a disagreement of a mean of 2.086 and standard deviation of 0.479. To ascertain the overall position of Financial Performance of SACCOs in Bushenyi District, overall mean was computed and the results are provided in Table 12.

Table 12: Overall mean results on the Financial Performance of SACCOs

Statistic		Value
Mean		2.0895
95% Confidence Interval	Lower Bound	1.2153
	Upper Bound	3.1441
Minimum		1.2500
Maximum		4.2500
Range		3.0000

Source: Primary data (2018).

The results in Table 12 show that the overall mean value regarding respondents rating of the financial performance of SACCOs was 2.0895. This mean value suggests that respondents generally rated the financial performance of SACCOs in Bushenyi District as poor. The results imply that SACCOs do not financially perform to their expectation. The lower and upper bounds indicate that the mean results for most observations were lying between 1.2153 and 3.1441 with 95% of the time for all the while 5% were the extremes that

were either below the lower bound or above the upper bound as indicated by the minimum and maximum mean values of 1.2500 and 4.2500 respectively. The results further suggest that extreme cases of observations which occurred by chance were few and as such the reported mean is highly reliable.

The researcher also undertook a qualitative data interview in respect to the credit recovery rate and the response from one of the credit officers was due to low returns of the clients' businesses. He is quoted saying "The low returns to both the clients and SACCOs have sometimes forced SACCOs to loosen their credit policy which has resulted into liquidity constraints (June 29, 2018)".

3.3 Inferential statistics

This subsection is the presentation of inferential statistics. These particularly include correlations and regression analyses for testing the relationship between the variables and the study hypotheses.

3.3.1 Correlations

The researcher undertook a Pearson correlation to test the relationship between the study variables and the results are as given in table 13 below.

Table 13: Correlation results on Credit Risk Management and Financial Performance

		Risk identification	Risk assessment	Credit monitoring	Financial performance
Risk identification	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	81			
Risk assess	Pearson Correlation	-.040	1		



ment	Sig. (2-tailed)	.720			
	N	81	81		
Credit Monitoring	Pearson Correlation	-.072	.077	1	
	Sig. (2-tailed)	.526	.494		
	N	81	81	81	
Financial Performance	Pearson Correlation	-.492**	.245*	.243*	1
	Sig. (2-tailed)	.000	.027	.029	
	N	81	81	81	81
**. Correlation is significant at the 0.01 level (2-tailed).					
*. Correlation is significant at the 0.05 level (2-tailed).					

Source: Primary data (2018)

The results in Table 13 show that there is a weak negative relationship between credit risk identification and financial performance of SACCOs as given by the r coefficient of -0.04 that is statistically significant at p-value of (0.000). The researcher also revealed a weak negative relationship between credit risk assessment and financial performance of SACCOs as given by the r coefficient of -0.245. Lastly, table 13 results indicate a weak positive relationship between credit monitoring and financial performance of SACCOs as given by the r coefficient of 0.243 significant at 0.029.

Therefore, study findings suggest that risk identification in SACCOs in Bushenyi District are negatively related to the financial performance of SACCOs and continuing with such practices will continue to adversely affect the financial performance of these organizations.

### 3.3.2 Linear regression analysis/ANOVA results

Linear regression/ANOVA were conducted to establish the general relationship between credit risk management and the financial performance of SACCOs.

Table 14: Model summary of the relationship between credit risk management and financial performance of SACCOs

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.633 <sup>a</sup>	.401	.393	.28175
a. Predictors: (Constant), Credit Risk Management				

Source: Primary data (2018)

The results in Table 14 indicate that credit risk management is correlated (r=0.633) with the financial performance of SACCOs in Bushenyi District. The results further show that credit risk management explains 40.1% of the financial performance of SACCOs in Bushenyi District.

### 3.3.2 Multiple regression analysis

Multiple regression analysis was conducted to measure the relative strength of the predictor variables. The results are provided in Table 15 below.

Table 15: Multiple Regression Model Beta Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	
	B	Std. Error	Beta			
1	(Constant)	2.989	.685		4.363	.000
	Risk identification	-.726	.168	-.421	-4.318	.000
	Risk assessment	.405	.138	.287	2.939	.004
	Credit monitoring	.300	.148	.197	2.032	.046
a. Dependent Variable: Financial performance						

Source: Primary data (2018)

The results in Table 15 show that all the three predictors, Credit Risk identification (CRI) (p<0.01), Credit Risk Assessment (CRA) (p<0.01) and Credit Risk Monitoring (CRM) (p<0.05) are significant predictors of the financial performance of SACCOs. However, credit risk identification is the strongest, but a negative predictor (β<sub>-</sub> -0.726), followed by credit risk assessment (β<sub>-</sub> 0.405) and lastly credit risk monitoring (β<sub>-</sub> 0.300). Basing on the coefficients, the model specification for the relationship between credit risk management and the performance of SACCOs in Bushenyi District basing on the hypothetical model chapter three is as follows:

$$CRM = 2.989 - 0.726CRI + 0.405CRA + 0.300CRM + .28175$$

$$\text{Hence, } CRM = 3.271 - 0.726CRI + 0.405CRA + 0.300CRM$$

## IV. CONCLUSION AND RECOMMENDATIONS

### 4.1 Conclusion of the study

Based on the study findings, the researcher concludes that there improving on credit risk management would greatly improve the financial performance of SACCOs in Bushenyi District. Whereas aspects of credit risk assessment and credit risk monitoring need improvement, the credit risk identification systems need great improvement to reduce the significant negative contribution on the financial performance of SACCOs in the district.

## 4.2 Recommendations of the study

### 4.2.1 Credit risk identification and financial performance

Based on the study findings, the researcher recommends that there should be a strong consideration of evaluating the capacity of borrowers to repay the loan and this should be done by comparing income against recurring debts of the borrower. Also, there is need to evaluate the use of the loans borrowed as the loan purpose communicate the usage and the outturns of the loan.

### 4.2.2 Credit risk assessment and financial performance

The researcher also recommends that SACCOs employ technically capable professionals to accurately ascertain amount of loan exposed to default and further compose timely reports in relation to the loan defaults such that prudent measures be taken on time.

### 4.2.3 Credit risk monitoring and financial performance

Lastly, based on the study findings of weak aspects in credit risk monitoring that were identified such as lack complete credit documentation for each client by SACCOs and failure by SACCOs to adhere to the preset credit terms when lending, the researcher recommends that SACCO management should ensure detailed documentation of the client's details regarding the loan of the individual client as this guide in follow up cases. Also, there is need to emphasize adherence to the present credit terms.

## 4.3 Areas for further research

This study established that other factors other than those considered in this study have a significant relationship with the financial performance of SACCOs. However, these factors have not be specifically explored. Therefore, future studies could focus on exploring those factors. Case areas could be:

- ✓ Lending methodology and Loan recovery among SACCOs
- ✓ Lending rates and Loan Performance of SACCOs.

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