INFLUENCE OF CREDIT RISK ON VALUE OF PRIVATE EQUITY FIRMS: AN EMPIRICAL SURVEY OF SAVINGS AND CREDIT COOPERATIVES IN KENYA.

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ABSTRACT

The study sought to examine the influence of credit risk on the value of the firm among SACCOs in Kenya. Positivistic epistemological position was adopted in this study. The study adopted descriptive and causal research designs. The targeted population was 164 SACCOs licensed by Sacco Societies Regulatory Authority. A sample size of 115 respondents was selected using stratified random sampling technique. The study utilized secondary data obtained from organization's published financial statements. Data was analysed using descriptive statistics while inferential data analysis was conducted using Pearson correlation coefficient and panel data regression model. The study results showed that value of the firm was negatively correlated with credit risk. The results further revealed that credit risk had an insignificant negative effect on value of the firm as shown by the coefficient of -0.06402 and a P-value of 0.284. Since, credit risk had a negative effect on value of SACCOs, the study recommended that the management should control their credit risk by reducing non-performing loans. However, since the effect was not significant, the study recommended that the management should economically justify credit management efforts. The results of the study would assist SACCO management, ministry of Industry, Trade and Co-operatives and agencies such as Sacco Societies Regulatory Authority, investors as well as researchers and scholars.

Keywords: Credit risk, value of the firm, SACCOs, Non-performing loans

INTRODUCTION

Risk management is an essential part of the activities undertaken by financial institutions as they are constantly dealing with risks in an effort to maximize profit and wealth of shareholders. As explained by Christoffersen (2012), risk is the possible occurrence of unexpected and not so pleasing happenings in the near future. Financial risk refers to the inability of an organisation to fulfil its financial obligations as they occur. Rejda (2011) offered two classifications of financial risks including internal and external financial risks. The former is because of events occurring in the firm while the latter is as a result of events from outside the organisation such as those from the financial markets. Sadgrove (2016) points out that financial risk can further be sub-classified into market, liquidity and credit risk. Financial risk arises due to uncertainties that occur because of dynamics in the foreign exchange rates, management of liquidity, changing interest rates and defaults on credit obligations. This study focused on credit risk which was operationalised by Greuning and Bratanovic (2009) and Ogle 2010 as the possibility that borrowers will fail to repay the borrowed money and the interest thereof making the lender lose the principal and the loan's interest.

In the global setting, credit risk management is an integral part of the business activities of SACCOS and banks as they are predominantly exposed to these risks in the pursuit of their objectives (Githiomi & Maina, 2016). Essentially, the existence of commercial banks is based on how well they manage the risks they face. Banks therefore aim to achieve acceptable balance between risk and return while at the same time minimizing the possibility of unacceptable outcomes on their performance. According to Giglio (2016), risk management by commercial banks was inadequate and emphasized the importance of uniform monitoring and regulating risks in banks. Although financial institutions have established frameworks for credit risk management, these tools have not prevented loses arising from these risks. It is therefore necessary for these institutions to assess, on a comprehensive and regular basis, the efficacy of credit risk management in achieving their financial performance objectives (Chan & Wong, 2015).

Fundamentally, the existence of SACCOs in the financial sector is crucial for financial deepening and economic development of any country. However, they are exposed to credit/default risk. Since the institutions are in the financial sector, their dominant risk according to Greuning and Bratanovic (2009) is credit risks since their main activity is to accept deposits and lend money to their members. Additionally, Hutson and Stevenson (2010) observed that credit risk is one of the main risks facing SACCOs and therefore their survival is largely determined by how well they manage these risks. SACCOs must therefore, aim at achieving an acceptable equilibrium between risk and return while minimizing possible unacceptable outcomes on their performance.

Statement of the problem

Savings and credit co-operatives in Kenya have perennially faced stiff competition amongst themselves and from the more established commercial banks and other financial institutions such as micro finance institutions (World Bank, 2016). SASRA (2017) observed that have experienced delayed refunds of members deposits due to liquidity issues associated with cash flow problems according to Matundura (2012) opined that delayed cash flow mainly arise from members failure to honour their obligations in terms of periodic deposits and loan repayment. It was further noted that most Saccos in Kenya face huge loan backlogs which expose them to credit risk resulting from defaulting borrowers. This default may lead to Sacco members losing their capital resulting in capital risk. As a result, most Saccos result to less risky short-term lending which is less profitable as opposed to long term lending (World Bank, 2016).

Moreover, as noted by SASRA (2017), most Saccos have low member loyalty where members move from one Sacco to the other where their peculiar needs are served. This results to non-performing loans and one of the major issues affecting Saccos financial position. In his study, Okundi (2011) concluded that some Saccos lack funds to advance loans leading to delayed disbursements of such loans, liquidity constraint as a result of delayed submissions of deductions by employers and limited contribution by members. The

challenges facing Saccos affect their value. Although many scholars have attempted to interrogate the construct of firm value, they have focused on factors affecting the firm value (Fama & French, 2002). Saunders and Allen (2010), Kostyuk (2006) and Minnis (2011) further pointed out that the firm's value is impacted by different complex factors. However, among Saccos, determination of firm value has been a complex issue mainly because the construct is multifactor and their shares are not traded openly in the exchange market. This study will thus be necessary to guide Saccos in determination of their value.

Attempts by previous scholarship to address the influence of credit risk on the value of the firm is conspicuously missing in existing literature. Instead, previous scholars (Saunders & Allen 2010; Minnis, 2011; Christoffersen, 2012; Kipruto, 2014; Yuko, 2016) focused on the relationship between value of the firm and other variables such as income level, levered level, operational efficiency, liquidity level, growth capacity, tax rate, cash flows from investment projects, cost of capital, and technology. Studies in the current study context were conducted in public limited companies listed in the Nairobi securities exchange and their findings may not be inferred on private equity firms such as SACCOs. Therefore, it was established that previous researchers have not adequately addressed the influence of credit risk as a determinant of firm value. As such, there is need to carry out this study to establish the influence that credit risk has on the value of the firm among SACCOs in Kenya.

LITERATURE REVIEW

Every financial institution has to expose themselves to a risk when it gives loans to enterprises and customers as they experience loss in case of default in the loan payment (Klimenok, 2014). Credit risk is one of the threats to soundness of SACCOs. Psillaki, Tsolas and Margaritis (2010) observed that credit risk, which is a function of financial risk, has been largely attributed to insider lending, foreign exchange, legal compliance and strategic risks amongst other internal influences such as financial inducements provided to the personnel of a financial institution. This financial inducement gives rise to opportunism and moral hazards due to giving credit to business with poor credit history and persons with doubtful credit history. As noted by Chinwe (2015) default risk fuels credit risk.

Subjective decisions made by the managers can result to giving loans to organisations affiliated to the manager or to people whose credit history is not good. Managers can also give loans to some undeserving clients in an attempt to have relationships with celebrities of those who have a higher status in the society. This problem can be solved by use of lending methods that are quantitative in nature or those, which have been trained and tested (Griffith & Persuad, 2003). Loans that are given to the borrowers may not be paid and although SACCOs give credit to the borrowers on the understanding that they are going to repay, some of these borrowers do not pay their debt and this decreases the income of the financial institution (Saunders & Allen, 2010). In instances where SACCOs do not know the number of borrowers who are likely to default they face a risk of varying profits or earnings. The

Basel Committee on Banking Supervision encourage financial institutions to thoroughly evaluate their customers to reduce the incidences of credit risk (Kargi, 2011).

Additionally, the challenge of risk management is based on two factors. The first is the Newtonian reaction against losses, which is the realization that the loss incurred is unbearable. The second one is new developments in commercial financing where competition from non-bank competitors and securitization has led financial institutions to look for loan borrowers who are qualified to get loans (Nason, Fraser & Simkins, 2011). This has resulted to many companies and individuals to seek loans and finance from the open market sources such as bonds. Lending the loans in a professional manner and managing the risks can minimize the possibility of default among borrowers. It is possible for financial institutions to use innovative measuring methods to ensure proper risk management (Repullo & Saurina, 2011).

Attempting to resolve the issue of credit risk, several studies have been carried out globally. Ogle (2010) comparative study looked at the credit risk management activities of Kenyan banks. According to the findings, the Kenyan Islamic banks lack proper risk management systems compared to the other banks. The conclusion was reached since there were differences in the credit risk levels, the time taken by the institution to detect the defaulting customers and the way the firms dealt with defaulting clients. According to the study, the credit risks were equal in Islamic and convectional banks but the loans of the Islamic banks do not accrue interest.

In a study undertaken to investigate the association existing between bank credit risk and financial performance and the role played by risky lending which resulted to decreased liquidity and profitability Berrios (2013), adopted the descriptive study on a population of 793 public companies in the United States. 80 banks were sampled but only 40 were studied; the forty banks had completed sought data set for the period covering 2005-2009. Data analysis was done via panel data regression analysis, descriptive statistics and analysis of covariance. The study finds a negative relationship between less prudent lending and net interest margin, insider holdings and longer chief executive officer tenure were negatively related to bank performance. This study considered only one component of financial risk, credit risk. The sample population for the study was very low with a response rate of 5% of the population only. In addition, the study was conducted among commercial banks in United States while the current study was conducted among SACCOs in Kenya.

To test the hypothesis that the collapse of banking institutions is primarily driven by inadequate credit risk practices in the context of Zimbabwe, Nyamutowa and Masunda (2013) used qualitative survey study with a population of 14 commercial banks, from which primary data was obtained using questionnaires. The researchers observed that the deteriorating economy, forced Zimbabwe to adopt lending guidelines that focused credit to predominantly agriculture sector to increase economic output through cheap funds obtainable at negative real interest rates. The study established that commercial banks in Zimbabwe

place much weight and emphasis on collateral. The outcome being poor asset quality that in turn increases bank exposure. Foreign commercial banks operating in Zimbabwe were found to be having better credit risk practices than indigenous commercial banks. This study focused on credit risk only ignoring interest rates, capital management and liquidity risks as components of financial risks. Additionally, the study was conducted in Zimbabwe while the current study was conducted in Kenya.

Examining the effect of credit risk management on the financial performance of banks in Rwanda, Magnifique (2013) used a descriptive study on eleven banks. The data collection was done with the help of a questionnaire. According to the findings, there were three factors except risk monitoring that could help in the prediction of the financial performance of banks. Identification of risks helped to indicate the banks productivity while the analysis, scoring and assessment of credit risk showed the financial performance of banks. However, the research looked at the effect of risk management to the monetary performance of banks that had capital requirements that are different from those of SACCOs. The research was also done in Rwanda while the current study seeks to determine the effect of financial risk management on value of SACCOs in the Kenyan context.

Locally, Waweru and Kalani (2009) looked at the causes of nonperforming loans, what the managers do to manage the problem and if these actions are successful. The study used an exploratory research design and collected primary data from 30 managers in large Kenyan banks. Data analysis done through regression analysis revealed that national economic recession, client keeping some of the vital data when applying for the loan, and lack of an effective debt collection policy contribute to the non-performing debt problem in Kenya. The focus of this study was only to establish the causes of nonperforming loans. Additionally, the study used a very small sample comprising of 30 respondents in the banking sector.

In an attempt to establish how management of credit risk influenced Kenya commercial bank's financial performance and established a relationship between determinants of credit risk management, Ogilo (2012) gathered secondary data from CBK publication for analysis. Multiple regression analysis was preferred, from which it was revealed that bank's financial performance was strongly affected by CAMEL elements. In addition, there was a weak relationship between availability of capital, assets quality, efficiency in management and liquidly, with financial performance. This study was conducted in commercial banks while the current study was conducted among SACCOs.

In an attempt to establish the relationship between financial risk and financial performance of insurance companies in Kenya, Obudho (2014) conducted a census of 49 insurance firms covering the period 2009 to 2013. Descriptive research design and secondary data collected from the said firms' financial reports were employed in the study. Data was analysed using inferential statistics, regression analysis and correlation analysis and found that a higher financial risk results to lower financial performance of the firm; solvency, capital management and liquidity risks negatively affects financial performance of Kenyan insurance

firms. Financial risk management therefore is essential as financial risk impacts firm performance. Although the findings of this study are relevant to the current study, it was conducted among insurance firms while this research looked at SACCOs. Secondly, the study did not consider interest rate risk as a component of financial risk.

In a study to establish the relationship between financial risk management and financial performance of Kenyan commercial banks, Muteti (2014) used a descriptive research design on a population of 43 commercial banks in Kenya and covered the period from 2009-2013. The study used secondary data and regression analysis. The study showed an unfavourable relationship between liquidity, foreign exchange, interest, credit risks and the financial performance of Kenyan banks. A favourable relationship was also observed between capital management risk, bank deposits, bank size and financial performance. The study was conducted among commercial banks and not SACCOs.

Looking at the association between credit risk management and the performance of loans of Kenyan MFIs Kisala (2014) selected a sample of nine MFIs on a descriptive study. The data used was both primary and secondary. The tool of primary data collection was a questionnaire while secondary data was collected from the yearly reports (2007-2011). Profitability was measured using ROE, while risk management was quantified using NPL and CAR. The results indicated a relationship between the study variables. The NPL ratio effect was greater on ROE compared to the effect of CAR. The study scope was on deposit taking MFIs and the non-deposit taking MFIs were not included. The current research focus is on Kenyan SACCOs. In addition, the study sought the link between credit risk management on the loan performance while the current study aimed at establishing the interaction between financial risk management and value of the firm among SACCOs in Kenya.

In a bid to determine the impact of credit risk management on the DTMs financial performance, Korir (2014) applied a descriptive research design and focused on DTMs that were licensed by central bank. The effect of credit management on the performance of DTMs was analysed. The study sample size was made up of nine DTMs but the data used was collected from six DTMs using a questionnaire and from the yearly reports of the institutions (2011 - 2014). Return on asset (ROA) was used to measure profitability while credit risk management was measured using cost of bad debt, cost of loan assets and the rate of default. The study used multiple regression analysis. The results of the study indicated that the risk management measures had an inverse impact on the DTMs financial performance. The study looked at deposit taking DTMs that operate under different legal framework from SACCOs.
A positive relationship between credit risk and debt to equity ratio and corporate liquidity for DTMs. These results were posted by Murage (2014) in a study on the relationship existing between credit risk and the corporate liquidity of DTMs in Kenya. To conclude, the study used secondary data for the period between 2011 and 2013 relating to five DTMs was corrected from Kenya's CBK and AMFI. Descriptive statistics, variance analysis, regression analysis and correlation analysis helped analyse the data. However, the study used a very small population of five DTMs to come up with its conclusions. Additionally, the time

covered by the study was a very short duration of four years, which is a short duration the relationship between the variables and may therefore significantly affect the results.

To evaluate the impact credit risk management on Kenya MFIs financial performance, Wakaria (2016) exploited descriptive research design. Secondary data gathered from microfinance institutions yearly reports (2011- 2015) from 13 microfinance institutions licensed by CBK and 22 non-deposit taking MFIs were used in the study. The data collected was subjected to linear regression, multiple regression analysis and correlation analysis. This study found a considerable correlation involving financial performance and credit risk management.

RESEARCH METHODOLOGY

The study was guided by a positivism epistemological research philosophy. The positivist paradigm enables a researcher to investigate the social science as a natural science with the hypothesis being tested empirically to discover the truth and the quality is assured through the reliability and validity (Koul, 2008). This study adopted both descriptive research design and causal research design. Descriptive research design was used because the study sought to describe characteristics of the SACCOS and the variable being studied and describe, "What exists" with respect to the variable and conditions in a situation as recommended by Ojukwu (2013).

The target population for this study consisted of 164 Savings and Credit Co-operative Societies in Kenya. A sample size of 115 deposit taking SACCOS was arrived at by calculating the target population of 164 with a 95% confidence level and an error of 0.05 using the Cochran (1977) formula adopted from Kothari (2004). This study adopted stratified random sampling techniques to select the sample size.

This study exclusively utilized secondary data obtained from audited financial statements and Sacco offices using a data collection sheet. The researcher collected data from the Sacco's published financial statements that are available online in their websites, brochures, journals, periodicals, and other relevant sources such as SASRA. Where the information was not obtained from published sources, the affected SACCOs were contacted for the requisite data. Pilot testing in this study was conducted to test the accuracy of the model in making accurate predictions based on the operationalization of the study variables as outlined in the conceptual framework.

Descriptive statistics such as means and standard deviation skewness and kurtosis of the variables data was to show the characteristics of the data in terms of central tendency and the extent of their dispersion. Inferential data analysis was conducted using Pearson correlation coefficient and panel regression model involving cross-sectional data from SACCOs registered by SASRA for a period of eight years.

To achieve the study objective, the study ran a panel data regression model.
This general model was specified as follows;

$$Fv_{it} = \beta_0 + \beta_1 Cr_{it} + \varepsilon_{it}$$

Where: - Fv = Firm Value; β_0, β_1 = Constants; CR = Credit Risk; ε= Error Term

RESULTS AND DISCUSSIONS

The purpose of the study was to establish the influence of credit risk on the value of the firm among SACCOs in Kenya. This section provides the analysis of the data collected and the interpretations thereof. The summary of variables characteristics is presented first followed by inferential analysis results. The study used panel data, which was essentially a cross-sectional time series data in which the variables in the SACCOs were observed across time.

Variables Characteristics

The study sought to establish the general description of the study variables. Measures of central tendency including the mean and the standard deviation minimum and maximum values were used to summarize the characteristics of the variables under investigation. The results were presented in Table 1

Table 1: Financial Risk Profile of SACCOs

Variable	Obs	Mean	Std. Dev.	Min	Max	Skewness	Kurtosis
Credit Risk	410	69.44398	283.6851	.099406	3479.851	0.027	2.850
Value of the Firm	410	1.517546	3.517641	-11.6478	33.85699	0.768	3.1059

The results in table 1 showed that credit risk had a mean score of 69.44398 million and a standard deviation of 283.6851 million. The results showed that on average SACCOs in Kenya there was high variation in coverage of interest expense from operating earnings before depreciation, interest and tax suggesting that while some SACCOs were able to adequately cover their interest expenses others had excessive interest expenses, which could not be covered exposing the SACCO to poor performance and reduced overall firm value. These results were consistent with the findings of Psillaki, Tsolas and Margaritis (2010) who concluded that credit risk is one of the threats to soundness of financial institutions. The results also agreed with the findings of Magnifique (2013) who concluded that credit risk identification, scoring, and assessment of credit risk explained the financial performance and value of financial institutions in Rwanda. However, the results contradicted the findings of Berrios (2013) who showed a negative relationship between less prudent lending and net interest margin which were negatively related to bank performance and value of commercial banks.

Correlation Analysis

Correlation analysis in this study was conducted using Pearson's correlations analysis at 95% confidence interval and 5% confidence level 2-tailed test. The results of correlation analysis between, credit risk on value of the firm were as shown in Table 2.

Table 2: Correlation Coefficients

		value of the firm	Credit risk
Value of the firm		1.0000	
Credit risk	r	-0.0772	1.0000
	Sig	0.1184	

The results in table 2 show that the correlation between credit risk and value of the firm was -0.0772 Based on these results the study observes that there was a weak negative correlation between value of the firm and credit risk. These results were consistent with the findings of Psillaki, Tsolas and Margaritis (2010) who noted that credit risk, which is a function of financial risk is one of the threats to soundness of SACCOs since credit extended to borrowers may be at the risk of default thereby reducing the profitability and value of the firm especially if the losses are unbearable.

Determining Association between Credit Risk and Value of the Firm

The objective of the study was to determine the effect of credit risk on the value of the firm among SACCOs in Kenya. Panel data analysis results were as presented in table 3.

Table 3: Association between Credit Risk and Value of the Firm

Source	SS	Df	MS	Number of obs	=	410
				F (1, 408)	=	65.7012
Model	701.9520	1	701.952	Prob > F	=	0.0184
Residual	4358.9317	408	10.68366	R-squared	=	0.1387
				Adj R-squared	=	0.1366
Total	5060.8838	409	12.373799	Root MSE	=	3.5114

Value of the firm	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Credit risk	-.09578	.0612	-1.565	0.118	-.002161	.0002454
_cons	1.584059	.1785496	8.87	0.000	1.233067	1.935051

The model was summarised as follows:

$$\textbf{Value of the Firm}_{it} = 1.5841 + -0.0958\ cr_{it}$$

The results showed that credit risk had a coefficient of -0.09578 meaning that holding all other factors constant, a unit increase in credit risk would result in a 0.09578 decrease in value of the firm. Correspondingly, the results in Table 3 showed that the coefficient for the constant was 1.584059 meaning that if credit risk was held constant at zero, the value of the firm would be equal to 1.584059.

The results further showed that the coefficient of credit risk had a t-statistic of -1.565 and a P-value of 0.118. Based on these results, the study found that the t-statistic of -1.565 was less than the t-critical of 6.3137 and it was therefore concluded that credit risk is not a significant predictor of firm value. In addition, the study found that the P-value of 0.118 was greater than the significance level of 0.05 and therefore the study failed to reject the null hypothesis and concluded that credit risk has no significant effect on the value of the firm among SACCOs in Kenya.

The results also show that the adjusted R-squared was 0.1366 implying that the model was able to predict 13.66% of the variation in the value of the firm while the remaining 86.34% was predicted by other variables not captured in the model. The F-statistic for the model was 65.7012, which was greater than the F-critical of 3.8644. Thus, on the basis of the F-statistic the study found the model fit to predict firm value. On the other hand, the P-value for the model was noted to be 0.0184, which was less than the significance level of 0.05.

The results were consistent with the conclusions reached by Chinwe (2015) who concluded that default risk fuels credit risk which influences performance. Furthermore, Berrios (2013) also concluded that there is a negative relationship between credit risk and bank performance. The study concluded that measures of credit risk such as less prudent lending and net interest margin and insider holdings were negatively related to bank performance and liquidity. In addition, the findings concurred with the findings of Nyamutowa and Masunda (2013) that better credit risk practices help improve performance and value of the firm and that collapse of banking institutions is primarily driven by inadequate credit risk practices.

The results were also consistent with the findings reported by Kisala (2014) who observed that nonperforming loans and capital adequacy ratio have a negative and comparatively significant effect on firm performance. However, the results were inconsistent with the findings of Magnifique (2013) who concluded that credit risk identification explained the productivity of banks in Rwanda while scoring, analysis and assessment of credit risk explained the financial performance and their value. Finally, the results of this study resonated with the conclusions made by Korir (2014) that credit risk measures such as cost per loan asset, bad debts and default rate have an inverse effect on financial performance of DTMs.

CONCLUSIONS

The study concluded that credit risk had no significant effect on the value of the firm among SACCOs in Kenya. The study deduced that a unit change in the interest rate risk would lead to negative change in value of the firm among SACCOs in Kenya. The study also noted that the findings of the study supported the provisions of credit metrics model developed by Cantor & Packer (1996) that advocate for determining a risk-based credit limit. As noted by Altman and Kuehne (2016) changes in value of the firm is caused by possible default events and upgrades and downgrades in credit quality since the value of a particular credit varies

with the corresponding credit quality. Further, the models support that carefully considering credit risks during appraisal help organizations reduce the number of non-performing loans thus improving their performance and value. The findings in this study contribute to the body of knowledge both theoretically and empirically. This is because the findings of the study supported the provisions of credit metrics model that increase in credit risk influences performance and value of the firm. Empirically, the study aid in bridging the gap in literature on the effect of credit risk on the value of SACCOs in Kenya. The study showed that credit risk though it affects the value of the firm the effect is not significant. This is mainly because most SACCOs relied on member deposits to lend to their customers as opposed to external credit.

RECOMMENDATIONS

The study found that credit risk is not a significant predictor of value of SACCOs in Kenya. The study therefore recommend that the management should economically justify the credit management efforts so that the costs of risk management do not outweigh the benefits. However, the study noted that there is a negative relationship between credit risk and value of the firm. The management should therefore seek to improve their EBITDA-To-Interest Coverage Ratio by operating more efficiently to increase their earnings before depreciation interest and tax. In addition, the management of SACCOs should seek to avoid over reliance on debt capital, as it would result in increased interest expense whose payment is mandatory.
Suggestion for further study

This study was conducted among SACCOs registered and regulated by SASRA which are significantly controlled by the government. The results may therefore not be applicable to non-deposit taking SACCOs. The study thus suggests that another study should be conducted among non-deposit taking SACCOs to establish if the findings in this study would concur. In addition, since these results were based on SACCOs, the study recommends that another study be conducted among other financial institutions such as Micro Finance Institution and commercial banks in Kenya to determine if similar results would be obtained. Since the study established that there is a requirement of SACCOs having 15% of savings deposits to be in liquid assets it recommended that another study can be done on the influence of this requirement on the value of SACCOs. The study was limited to credit risk as a determinant of firm value, which is a function of financial risk. The study therefore recommends that another wider study should be conducted to cover other types of risk to establish their effect on the value of SACCOs in Kenya.

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