

FINANCIAL LEVERAGE AND FINANCIAL PERFORMANCE OF DEPOSIT TAKING SAVINGS AND CREDIT CO-OPERATIVE SOCIETIES IN NAIROBI CITY COUNTY-KENYA

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Abstract: Statistical evidence from SASRA annual supervisory reports indicate a declining number of Deposit taking SACCOs especially after the introduction of SASRA regulation of 2012 on capital. This study sought to investigate the effect of financial leverage on financial performance of Sacco's in Kenya. The objectives of the study were to determine the effect of debt to capital ratio, debt to equity ratio, short term debt ratio and short term debt ratio on financial performance of Sacco's in Kenya. The study employed purpose sampling technique of the 30 Sacco's out of the 42 available Sacco's in Nairobi City County. The study was carried out between years 2012 to 2018 where secondary data was collected and used for this study. Causal research design was employed to determine the effect of the financial leverage on financial performance. Panel regression model was employed for analysis. Document review guide was used to extract information from the financial statements of the Sacco's in Nairobi. Diagnostic test were carried out to meet the assumptions of the panel regression model. The study found out that debt to equity ratio had a statistically significant negative effect on financial performance, debt to capital ratio had a statistically significant negative effect on financial performance, long-term to total asset ratio had a statistically significant effect on financial performance, short-term to total asset had a statistically significant positive effect on financial performance. The study concluded that debt to equity, debt to capital and short-term to total asset are associated with financial performance of Sacco's. The study recommends that Sacco's should consider debt restructuring when it comes to capital structure, client management with the sole objective of achieving the vision 2030.

Keywords: Financial Leverage, SASRA, Return on Investment, Panel Regression Model.

1. INTRODUCTION

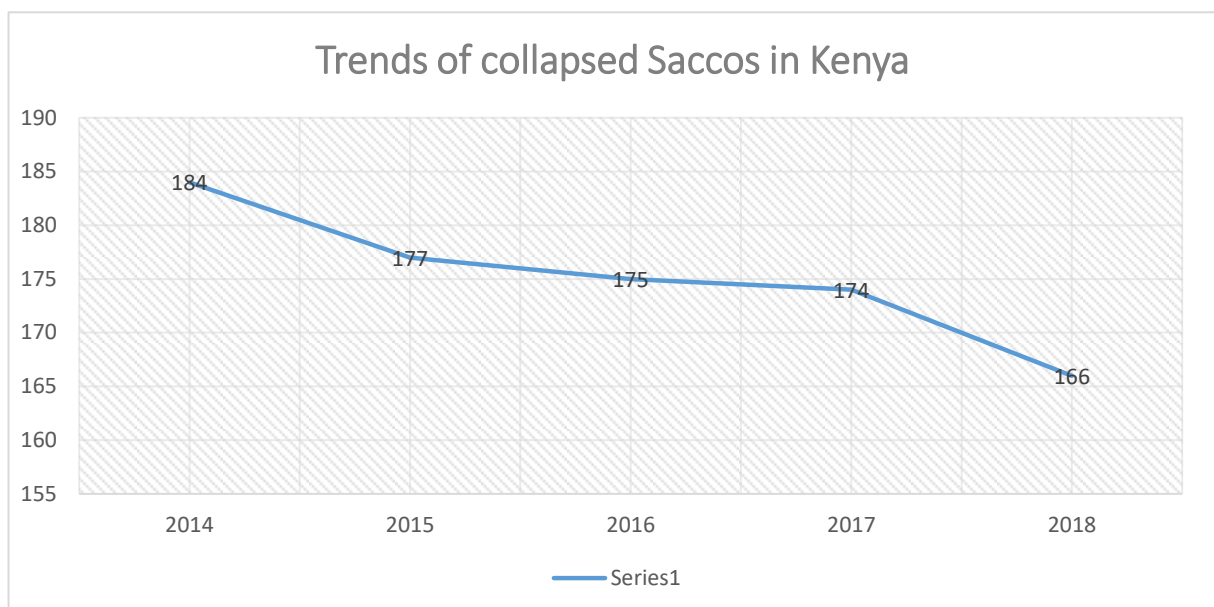
Globally, cooperative development in nineteenth dispensation and all this began in Europe. By 1830, there were a number of cooperative some were from the outset productive, most cooperatives that were built up in the mid nineteenth century had slumped by 1840 (Peacock, 2008). In 1844, this was the year that cooperative development on the planet took a turn towards improvement and development when Rochdale come up with reasonable principles for development of cooperatives (Lothian, 2007). Since this period there has been a speedy advancement in the cooperative improvement introduced upon the definitive strategies for Raiffeisen. Tache (2006) reveals that the cooperatives advancement spread all over the developed countries from 1900 to 1930 and afterward the cooperative movement reached out to Ghana (Obure & Muturi, 2015).

In Africa, the idea of Saccos was first delineated and discussed in 1955 in Ghana (Mumanyi, 2014). Further advancement of Sacco's in Africa has been the historical backdrop of cooperative improvement in free Africa for the most part staged into two eras: the first era running from the quick post-provincial period in the 1960's to the mid-1990s and the subsequent time happening during the worldwide financial changes from the mid 1990's to the present, which has been portrayed progression of the economy (Develtere & Pollet, 2009). While the first era was described by severe government authority over agreeable improvement through institution of approaches, enactment and projects that advanced cooperatives as vehicles for quickening national monetary turn of events, the second era has been the circle of liberating cooperatives from the state to appreciate self-sufficiency and work like undertakings reacting to market demands (Wanyama, 2009).

In Kenya Sacco's were established in 1908 as a way to achieve the economies of scale, Sacco's are a basic piece of the Kenyan government's monetary methodology, executed to improve income creating openings. Especially in country regions has the cooperative development been perceived by the administration as a crucial establishment for the activation of material assets for advancement in these specific territories, where most of residents procure their living basically from horticulture (Anaya & Otinga, 2019). Sacco's in the nation have aggregated 35% of the nations national reserve funds, unmistakably the need more acknowledgment for the job they play in Kenya. The vision 2030 blue print in Kenya perceives savings and credit co-operative societies social orders as significant players in extending financial access to prepare reserve funds for interests in undertakings and self-awareness (Ndung'u, 2010).

1.1.1 Financial Performance

Financial execution alludes to the demonstration of performing money related movement. In more extensive sense it is the way toward estimating the results of a company's approaches and activities in monetary terms (Gibson, 2012). Because of liquidity issue that Sacco's face in Kenya they are compelled to obtain to support their customer base (Simeyo, 2013). The returns from the borrowed funds tend to have an impact on financial execution of Sacco's. Statistics show that 6% of the legal members abandon their membership yearly due to low returns on investments (James, Alala & Douglas, 2014). Furthermore the declining trends of the number of Sacco's is a cause of concern; in 2014 there were 184 Sacco's, in 2015 there were 177, in 2016 reduced to 175, in 2017 it still reduced to 174 and in 2018 it further reduced to 166 Sacco's, this implies that as members exit the Sacco's the entry is not significant thus closure of Sacco's.



(Author, 2019)

Figure 1.1: Collapsed Sacco's over the Years

Figure 1.1 represents the collapsed Sacco's over the years, and this is due to low returns from the Sacco's thus the members quit their Sacco's due to low return on investment (ROI), and thus as a result of low return on investment will also follow suit since there is positive correlation.

Return on asset, net income margin, return on equity, return on investment and Profit margin are measures found in literature that studies have used as financial performance indicators (Gulzara *et al.*, 2018). For the purpose of this study return on investment will be used as a measure of financial performance since the phenomena under study is centred towards establishing the effect of leverage on return on investment. The withdrawal of members from a Sacco's due to low returns on investment and the declining trend of the number of Sacco's in Kenya is a phenomenon to be studied.

1.1.2 Financial Leverage

Financial leverage is a proportion of using obligations and equity to fund its resources (Abubakar, 2015). Financial leverage can also be referred to capacity of an organization in using borrowed money (Mohammad, 2015). Financial leverage appears as a credit which is ploughed back with the purpose to procure a more prominent pace of return than the expense of venture (Chigbu, 2012). Financial leverage utilized by a Sacco is planned to win more profit for the fixed-charge assets than their expenses. The excess will increment the arrival on the proprietors' value (Pandey, 2010). The pace of profit for the proprietors' value is turned above or beneath the pace of profit for absolute resources. Consequently, financial leverage is considered as a twofold edged blade since it gives the possibilities of expanding the investors' profit just as creating the dangers of misfortune to them (Chigbu, 2015).

Financial leverage ratio is comprised of a number of measurements; debt-to-assets ratio, debt-to-equity ratio and debt-to-capital ratio, (Lan, 2012). For the purpose of this study; debt to capital ratio and debt-to-asset ratio will be used as measures of financial leverage as well as the explanatory variable for the study.

1.2 Statement of the Problem

SACCOs assume an essential role in elevating lives in the community through financial inclusion. The cooperative subsequently assumes a pivotal role in members' work creation and wealth creation which encourages poverty alleviation (Dana, 2010). In Kenya, cooperatives are an imperative piece of the economy and are in charge of fourth five percentage of Kenya's gross domestic product with about twenty percent of the populace enlisted as a partner (Kirimi, Simiyu & Murithi, 2017). However, despite the significant role the sector plays in the economy, statistics show that 2 percent of the cooperatives go under every year as a result of financial challenges (Simeyo, 2013; Karuru & Agnes, 2016). Due to financial problems among the Sacco's it has been a challenge for them to repay borrowed loans from external sources (Mwende & Kalio, 2014; Onyango, 2016). As a result of the financial distress 6% of the members abandon their membership yearly due to low returns on investments (James, Alala & Douglas, 2014; Kirimi *et al.*, 2017). SASRA Supervisory reports shows that the number of deposit taking Sacco's have declined from 184 Supervised in 2014 to 166 in 2018, many of them being deregistered due to failure to comply with the SASRA regulations (Sasra, 2016). Since Sacco's depend on member's deposits and external funds, thus the effect of financial leverage components on financial performance of Sacco's is an issue that needs to be investigated further. Therefore, this formed the basis for the current study.

A number of studies have been conducted on financial leverage and financial performance (Kirimi, Simiyu & Murithi, 2017; Wabwile, Chitiavi, Alala, and Musiega, 2014; Mwatu & Abdul, 2018; Karuru & Njeru, 2016; Abubakar, 2016). However, some of the studies have been based on data from other counties whose findings may not be relevant to the local Sacco's context. Hence this study sought to bridge this research gap though establishing the effect of financial leverage on financial in Sacco's in Nairobi County, Kenya.

1.3 Objectives of the Study

1.3.1 General Objective

The main objective of the study was to investigate the effect of financial leverage on financial performance of deposit taking SACCOs in Nairobi County.

1.3.2 Specific Objectives

- (i) To determine the effect of debt to capital ratio on financial performance of deposit taking SACCOs in Nairobi County.
- (ii) To determine the effect of debt to Equity ratio on financial performance of deposit taking SACCOs in Nairobi County.
- (iii) To examine effect of long-term debt ratio on financial performance of deposit taking SACCOs in Nairobi County.

- (iv) To assess the effect short term ratio on financial performance of the deposit taking SACCOs in Nairobi County.
- (v) To Determine Moderating effect of SASRA Regulations on the relationship between financial leverage and financial performance of deposit taking SACCOs in Nairobi County.

1.4 Research Hypothesis

Ho₁: Debt to capital ratio has no significant effect on financial performance of deposit taking SACCOs in Nairobi County.

Ho₂: Debt to equity ratio has no significant effect on financial performance of deposit taking SACCOs in Nairobi County.

Ho₃: Long term debt ratio has no significant effect on financial performance of deposit taking SACCOs in Nairobi County.

Ho₄: Short term debt ratio has no significant effect on financial performance of deposit taking SACCOs in Nairobi County.

2. EMPIRICAL REVIEW

This segment presents past studies that have been done by different scholars comparable to financial leverage and financial performance. The empirical review looks to break down different study and feature the research gaps in those studies.

2.1 Debt to Capital Ratio and Financial Performance

Eriki and Osagie (2017) sought to investigate the impact of debt to capital ratio on performance of gas firms in Nigeria. The study was carried between 2011 to 2015 among the listed Nigerian Stock Exchange oil firms. Secondary data was extracted from the oil company's annual financial reports thus employing panel regression model for the analysis. Debt to capital ratio was one of the independent variables in the study while return on asset and returns on equity were proxy to financial performance of oil firms in Nigeria. From the findings the study found out that debt to capital ratio had an insignificant negative effect on performance of Oil Company in Nigeria. The current study was carried in deposit taking Sacco's in Nairobi County Kenya thus filling the contextual gap.

Abeywardhana and Magoro (2017) sought to examine the effect of debt capital on financial performance of listed companies operating in the wholesale and retail sector in Sri Lanka and South Africa. The study was carried between 2011 to 2015 while employing fixed effect regression model for analysis. The study broke down debt capital into short term debt and long-term debt. From the findings the study found out that debt capital financing had a significant negative effect on financial performance of companies in South Africa. While in Sri Lanka debt financing measured by long-term debt had a significant negative effect on financial performance and short term debt had a significant positive effect of financial performance of companies in Sri Lanka. There exists a contradiction in literature thus the current study was carried out in deposit taking Sacco's in Nairobi Kenya.

2.2 Debt to Equity and Financial Performance

Karanja and Gweyi (2014) conducted a study on financial leverage on return on asset, return on equity, profitability and income growth of Sacco's in Kenya. Descriptive and analytical design approaches were used, the study extracted secondary data from the financial statements of 40 Sacco's between period 2010 to 2012. Debt-Equity ratio was used as an explanatory variable while return on asset, return on equity, profitability and income growth were used as measure for financial performance as well as the dependent variable of the study. From the findings debt-equity had a significant relationship on return on equity and profitability while the analysis found an insignificant relationship with return on asset and income growth is Sacco's in Kenya.

Thaddeus (2012) investigated a study on financing leverage and performance of commercial banks in Nigeria. The study used both descriptive and analytical design; simple random sampling technique was used to sample 6 banks from the total 24 commercial banks in Nigeria. Secondary data was extracted from the financial statements of the 6 selected commercial banks and also from the Nigerian Stock Exchange fact books. Debt-equity ratio and coverage ratio were used as the explanatory variables while earning per share was the proxy for bank performance which was the dependent variable. The study analyzed the 6 banks separately and from the findings there existed a mixed conclusion across the banks.

Abubakar (2015) sought to investigate leverage and performance of commercial banks in Nigeria. Convenience sampling method was used to analyse 11 commercial banks. Secondary information was extracted from the financial statements of the selected commercial banks between years 2005 to 2013. Debt ratio and debt-equity ratio was used as an explanatory

variable while return on equity (ROE) was as a measure of financial performance and as the dependent variable. From the findings, debt- Equity ratio had a significant relationship on financial performance while debt ratio had an insignificant relationship on financial performance. The current study was carried out in deposit taking Sacco's in Kenya.

Kirimi, Simiyu and Murithi, (2017) examined a study on debt financing and financial execution of Sacco's of Tharaka Nithi County in Kenya. The study employed a causal research design, inferential and descriptive analysis was carried out. Secondary data was extracted among 10 sampled Sacco's in Tharak Nithi County. Interest coverage ratio, debt/equity ratio, loan tenure and interest rate were used as explanatory variable while ROE was employed as proxy to financial execution. From the findings, loan tenure and interest rate had a negative effect, while the rest of the independent variables showed a positive effect on return on equity as per the outcome.

2.3 Long-term debt to total asset ratio and Financial Performance

Wanjiku (2015) carried out a study on leverage and performance of Sacco's in Kenya. Descriptive design was utilized while information for data analysis was extracted given the financial statements of the 44 deposit taking Sacco's in Kenya. Panel data regression model was used and done for a period of 2011 to 2014. Total debt, long term debt and short term debt were used as explanatory variable while return on asset, return on equity and earnings per share were used as measures for financial performance. From the findings short term debt had insignificant relationship on performance; total debt to asset had a significant relationship with return on asset while long-term debt had a negative relationship with return on asset as proxy to financial performance.

Mwaniki, Oluoch and Ndambiri (2018) sought to investigate the effect of long term debt on financial performance of deposit taking Sacco's in Kenya. The study together examined the effect of short term debt on financial performance. Modigliani and miller, static trade off, pecking order and signaling were theories that the study employed. Return on equity was used as a proxy to financial performance while long term debt and short term debt were employed as an explanatory variable. The study was carried out in 18 deposits taking in Nairobi between 2012 to 2016. Data was extracted from the financial statements of the respective Sacco's thus employing secondary data. From the findings the study found out that long term debt and short term debt had a significant positive effect of financial performance of Sacco's in Kenya measured by return on equity.

2.4 Short-term debt to total asset ratio and Financial Performance

Karuru & Njeru (2016) sought to examine a study on financial leverage and profitability of Sacco's in Kiambu County, Kenya. Return on investment, ROA and ROE were utilized as indicators of profitability while long term, short term, retained earnings were used as explanatory variable for the study. Descriptive research was used for the study while multiple regression model was utilized for the analysis. A sample of 10 was picked from 28 savings and credit co-operative societies in the county of Kiambu using simple random method. Primary data was employed thus questionnaire was tailor made to address the objectives of the study. From the findings retained earnings, long term debt, short term debt had a positive relationship on profitability indicators. On the other hand equity had a negative relationship on profitability of Sacco's in Kiambu County.

3. RESEARCH METHODOLOGY

3.1 Empirical Model

In order to establish the effect of financial leverage on financial performance in Sacco's in Nairobi, the study used panel regression model. A panel model was suitable for this research because of the cross-sectional and time dimensions.

The model of the study is defined as follows:

$$Y = \beta_0 + \beta_n X_n + \varepsilon \dots \dots \dots (3.1).$$

Y = Dependent variable representing financial performance of Sacco's

i = Sacco's under observation with i = 1 to 42

t = the time with t = 2012... 2018

β_0 = constant term,

X = Explanatory Variables

$\beta =$ Coefficients to be estimated

$\varepsilon =$ Error term.

When equation 3.1 is expanded and applied to the study variables, 3.3 is obtained.

$$ROI = \beta_0 + \beta_1 DCR_{it} + \beta_2 DER_{it} + \beta_3 LTDA_{it} + STDA_{it} + \varepsilon \dots\dots\dots 3.3$$

ROI = Return on investment of Sacco i at time t

$\beta_0 =$ Constant term

DCR = Debt to Capital Ratio of Sacco i at time t

DER = Debt to Equity Ratio of Sacco i at time t

LTDA = Long term debt to total asset ratio of Sacco i at time t

STDA = Short term debt to total asset ratio of Sacco i at time t

4. DESCRIPTIVE STATISTICS

Descriptive statistics are utilized to depict the fundamental highlights of the information in a study. They provide straightforward summaries about the sample and the measures. The summary is shown in table 4.1.

Table 4.1: Descriptive statistics for the data used in the analysis.

Variables	Obs	Mean	Std. Dev.	Min	Max
ROI	210	.153367	0.203614	-1.29167	1.75301
Debt to Capital Ratio	210	0.697285	0.854641	-10.8826	2.91823
Debt to Equity Ratio	210	6.30708	14.63436	-190.9659	39.95571
Long-term debt to Total Asset Ratio	210	.087617	.1776343	.0002816	2.154995
Short-term debt to Total Asset Ratio	210	.7105299	.1654032	.004455	1.505222

Source: Study Data (2020)

As indicated in table 4.1, the mean value for mean value of ROI was 0.153367 with a standard deviation of 0.203614 and minimum and maximum values of -12.9167 and 1.75301 respectively. The positive ROI shows that deposit taking Sacco’s in Nairobi County were on average a positive return on investment however a number of Sacco’s were operating at a loss as indicated in the negative minimum observed value of ROI.

From the outcome in table 4.1 the mean value of debt to capital ratio 0.697285 with a standard deviation of 0.854641 which shows a larger variability of debt to capital ratio overtime. This implies that Sacco’s under study were in a technical insolvent state since on average the Sacco’s were operating above the 0.5 mark that is considered ideal as far as debt to equity ratio is concerned. The results on debt to equity ratio show a mean value of 6.30708 and a standard deviation of 14.63436. The mean value under debt to equity indicates that most of the Sacco’s were operating above the ideal mark of 1.5 to 3; hence the collapsing of Sacco’s due to less return from investment. Further results show long-term to total asset ratio had a smaller variability overtime with a mean value of 0.087617 and a standard deviation of 0.1776343 which is explained from the difference between the min of 0.0002816 and max value of 2.154995. Further results show short-term to total asset ratio had larger variability overtime with a mean value of 0.7105299 and a standard deviation of 0.1654032. This implies that on average Sacco’s had 71 percent of short-term debt for each Kenya shillings Sacco’s had in assets.

4.1 Diagnostic Tests

Normality test, multicollinearity test, panel unit root, heteroscedasticity test, autocorrelation test and Hausman test which comprises of fixed and random effect models were the diagnostic tests that the study employed as assumption to be fulfilled under panel regression model.

4.1.1 Normality Test Results

A normality test is utilized to decide whether sample data has drawn from a normally distributed population. The study employed Jarque-Bera test to test the normality distribution of the variables.

Table 4.2: Normality Test Results

Skewness/ Kurtosis tests for Normality					
Variables	Observation	Pr(Skewness)	Pr(Kurtosis)	adj chi2(2)	Prob>chi2
my Residuals	210	0.0000	0.0001	27.95	0.0000

Source: Study Data (2020)

As per the results in table 4.2, the study employed Jarque-Bera test of normality. The null hypothesis under this test was that the residuals were not significantly different from a normal distribution. Given that the $P = 0.0000 < 0.05$ significant level for the residual, the null hypothesis was rejected. The study concluded that the residuals were not normally distributed. Going by the rule of the thumb, a sample size of 30 observations and more will usually result in a sampling distribution for mean that is very close to a normal distribution (Saunders, Lewis & Thornhill, 2009).

4.1.2 Autocorrelation Test Results

Wooldridge test was employed under autocorrelation test.

Table 4.3: Autocorrelation test for ROI

Wooldridge test for autocorrelation in panel data H0: no first order autocorrelation $F(1, 9) = 3.674$ $Prob > F = 0.0663$

Source: Study Data (2020)

From the outcome in table 4.3, the study employed Wooldridge test for autocorrelation for equation 3.3. The findings indicated that the null hypothesis of no autocorrelation was not rejected since the p value was above the critical value of 0.05 ($P = 0.0663 > 0.05$) hence no autocorrelation in the data as noted by (Wooldridge, 2013).

4.1.3 Heteroskedasticity Test Results

The researcher employed Breuch Pagan test to take care of consistent standard errors of heteroscedasticity.

Table 4.4: Heteroskedasticity Test Results for ROI

Breusch – Pagan / Cook-Weisberg test for heteroscedasticity H0: Constant variance Variables: Fitted values of ROI $Chi^2(1) = 19.68$ $Prob > chi^2 = 0.0014$
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Source: Study Data (2020)

From the results output displayed in table 4.4, the study tested for panel heteroskeskedasticity employing Breusch-Pagan test. The null hypothesis was that the error term is homoscedastic. Since the calculated p value for variables fitted values of ROI (0.0014) is less than the critical p value (0.05), the null hypothesis that the data is homokedastic was rejected. This implied that the data had hetroscedasity problems hence the heteroscedastic was corrected by running a robust regression.

4.1.4 Hausman Test Results

The researcher employed the Hausman Test to detect the presence of endogenous regressors in the regression model.

Table 4.5: Hausman test for ROI

	coefficients		(b-B) Differences	Sqrt(diag(v_b-v_B)) S.E
	(b) Fixed	(B) Random		
Debt to Capital Ratio	-.1224811	-.1132916	-.0091895	.1104903
Debt to Equity Ratio	.2838894	.4205081	-.1366187	.1043288

Long-term debt to Total Asset Ratio	-.2299317	-.142384	-.0875477	.0787683
Short-term debt to Total Asset Ratio	.8420715	.0018957	.8401758	.8268992
SASRA Regulations	-.1580039	.191778	-.349782	.1369493
Chi ² (4) = 11.08 Prob>chi ² = 0.0497				

Source: Study Data (2020)

From the results in table 4.5 the P value was less than the critical value (P=0.0497<0.05). Therefore, the alternative effects model for the model was adopted as suggested by (Green, 2008).

4.2. Regression Analysis

This study is anchored on the foundation that there is an association between financial leverage and financial performance of Sacco's in Nairobi City County. To establish the statistical significance of the respective hypotheses, regression analysis is conducted at 95% confidence level.

4.2.1 Test for Direct Effect

The four objectives of the study was to determine the effect of debt to capital ratio on financial performance of deposit taking SACCOs in Nairobi County, to determine the effect of debt to Equity ratio on financial performance of deposit taking SACCOs in Nairobi County, to examine effect of long-term debt ratio on financial performance of deposit taking SACCOs in Nairobi County and to assess the effect short term ratio on financial performance of the deposit taking SACCOs in Nairobi County. The results are presented in 4.6 the discussions are provided subsequently

4.2.2 Effect of Financial Leverage on Return on Investment

Table 4.6 presents the results of regression Model 3.3 on the direct effect of financial leverage measures and return on investment (ROI).

4.6: Regression results with ROI as the Dependent Variable

Robust				
ROI	Coefficient	Standard Error	Z	P> z
Debt to Capital Ratio	-.6315662	.1529925	-4.13	0.000
Debt to Equity Ratio	-.5324115	.1964793	-2.71	0.007
Long-term debt to Total Asset Ratio	-.1059587	.0755608	-1.40	0.163
Short-term debt to Total Asset Ratio	.166664	.0846789	1.97	0.051
_cons	-.8592609	.3684964	-2.33	0.021
F statistics = 5.01 Prob > chi ² = 0.0008				

Source: Study Data (2020)

The outcome in Table 4.6 showed the F statistics value was 5.01 with a P =0.0008<0.05. This indicates that financial leverage indicators had a significant effect on return on investment of deposit taking Sacco's in Nairobi City County.

4.2.2.1 To determine the effect of debt to capital ratio on financial performance of deposit taking SACCOs in Nairobi County.

The first objective of the study determined the effect of debt to capital ratio on financial performance of deposit taking SACCOs in Nairobi City County. The outcomes are as displayed in Table 4.6. The coefficient of debt to capital ratio was ($\beta = -0.6315662$, $p = 0.000 < 0.05$). The results showed that there was a negative statistically significant effect of debt to capital ratio on return on investment of deposit taking SACCOs in Nairobi County. The null hypothesis that debt to capital ratio has no significant effect on financial performance of Sacco's in Nairobi was rejected at 5% level of significance.

The negative coefficient implies that a unit increase in debt to capital ratio would lead to a decrease in return on equity of Sacco's. When Sacco's use more of debt to finance its investment the less they get as far as return on investment is

concern. Debt in this Sacco's from statistics is proving to be an expense venture of raising funds since creditors will require higher returns from the same. The finding of this study is in agreement with those of Wanjiku (2015) but inconsistent with those of Mwaniki, Oluoch and Ndambiri (2018).

4.2.2.2 To determine the effect of debt to equity ratio on financial performance of deposit taking SACCOs in Nairobi County.

The third objective of the study determined the effect of long-term debt ratio on financial performance of deposit taking SACCOs in Nairobi County. The outcomes are as displayed in Table 4.6. The coefficient of debt to equity ratio was ($\beta = -.5324115$, $p = 0.007 < 0.05$). The results showed that there was a negative statistically significant effect of debt to equity ratio on return on investment of deposit taking SACCOs in Nairobi County. The null hypothesis that debt to equity ratio has no significant effect on financial performance measure by return on investment of Sacco's in Nairobi was rejected at 5% level of significance.

The negative coefficient implies that a unit increase in debt to equity ratio would lead to a decrease in return on investment of Sacco's. When Sacco's use more of debt to finance its investment the less they get as far as return on investment from the findings is concerned. Debt is a cheaper way of raising funds as opposed to equity which agrees with pecking order theory however in this scenario a manager will end up choosing equity as opposed to debt financing. The finding of this study is in agreement with those of Wanjiku (2015) but inconsistent with those of Mwaniki, Oluoch and Ndambiri (2018).

4.2.2.3 To examine effect of long-term debt ratio on financial performance of deposit taking SACCOs in Nairobi County.

The third objective of the study determined the effect of long-term debt ratio on financial performance of deposit taking SACCOs in Nairobi County. The outcomes are as displayed in Table 4.6. The coefficient of long-term debt ratio was ($\beta = -.1059587$, $p = 0.163 > 0.05$). The results showed that there was a negative statistically insignificant effect of long-term debt ratio on return on investment of deposit taking SACCOs in Nairobi County. The null hypothesis that long-term ratio has no significant effect on financial performance measure by return on investment of Sacco's in Nairobi was not rejected at 5% level of significance.

The negative coefficient implies that a unit increase in long-term debt to total asset ratio would lead to a decrease in return on investment of Sacco's. When Sacco's use more of long-term to finance its investment the less they get as far as return on equity is concern. Long-term debt is an expense venture of raising funds since creditors will require higher returns from the same. The finding of this study is in agreement with those of Wanjiku (2015) but inconsistent with those of Mwaniki, Oluoch and Ndambiri (2018).

4.2.2.4 To assess the effect short term ratio on financial performance of the deposit taking SACCOs in Nairobi County.

The fourth objective of the study determined the effect of short-term debt to total asset ratio on financial performance of deposit taking SACCOs in Nairobi County. The outcomes are as displayed in Table 4.6. The coefficient of short-term debt to total asset ratio was ($\beta = 0.166664$, $p = 0.051 < 0.05$). The results showed that there was a positive statistically significant effect of short-term debt to total asset ratio on return on investment of deposit taking SACCOs in Nairobi County. The null hypothesis that short-term debt to total asset ratio has no significant effect on financial performance measured by return on equity of Sacco's in Nairobi was rejected at 5% level of significance.

The positive coefficient implies that a unit increase in short-term debt to total asset ratio would lead to an increase in return on investment of Sacco's. Short term debt is cheaper venture of getting quicker returns on investment. Thus an increase of the same would lead to would lead to an increase in return on investment.

5. CONCLUSIONS AND RECOMMENDATION

5.1 Conclusions

Based on the findings the study concludes that, for Sacco's to increase on their returns, they need to manage their financial leverage as proxied by ratios. Debt to capital ratio indicated that higher debt to capital ratios implied that Sacco's were not managing their debts well. They therefore need to implement debt cutting initiatives to manage capital. Increased debt to capital is an immediate indicator to Sacco's of emerging problems in the cash flow. Furthermore the

study concluded that Sacco's with a high debt-to-capital ratio would be taking a big risk if they leveraged existing equipment or real estate as collateral for a new venture. Since they would theoretically be increasing their ratio, they would be seen as a greater liability since the leveraged items might not be enough to cover their financial obligations if the new venture did not work out as planned, thus cutting down on returns on investments.

The study noticed that debt to equity ratio negatively influenced the financial performance as proxied by ROI of deposit taking Sacco's in Nairobi City County in Kenya. It can be observed from the table 4.1 that Sacco's under study were operating above the ideal state of debt to equity ratio of 1.5 to 3. The debt to equity ratio shows a company's debt as a percentage of its shareholder's equity. If the debt to equity ratio is less than 1.0, then the firm is generally less risky than firms whose debt to equity ratio is greater than 1.0. Understanding the debt to equity ratio in this way is important to allow the management of a Sacco to understand how to finance the operations of the Sacco. This increasing leverage (using debt to finance growth) adds additional risk to the company and increases expenses due to the higher interest costs and debt.

The study noted that short-term to total asset ratio had a positive effect of financial performance of deposit taking Sacco's in Nairobi City County. As observed from table 4.1 that Sacco's on average were operating at 0.71 which implies that Sacco's have a 71 percent of short-term debt for each Kenya shilling it has in assets. The study concluded that deposit taking Sacco's should invest more in short term debt unlike long term debt since it's associated with financial performance of Sacco's .

The study furthermore indicated that sasra regulation moderated the relationship between the study variable and rather not as an explanatory variable. Sasra regulation as a moderator had a statistically significant effect of the study variables. The study concluded that deposit taking Sacco's in Nairobi County should pay attention to institutional capital against the total asset since they are associated with financial performance of Sacco's in Nairobi County.

5.2 Recommendations

Based on the findings, the study made the following recommendations. First, the study sought to evaluate the effect of debt to capital ratio on financial performance of deposit taking Sacco's in Nairobi County. The study findings showed that debt to capital ratio had a statistically significant negative effect on financial performance. The study therefore recommends that Sacco's can use certain tools like debt restructuring in order to lower their debt-to-capital ratio. By using certain bottom-line accounting techniques, the Sacco's can help to make themselves appear in a better financial position without the fear of insolvency. Furthermore the study recommends that the most logical step a Sacco can take to reduce its debt-to-capital ratio is that of reduce on their services charges, this will attract more clients and in the long run they become profitable. This can be achieved by reducing on interest rates. This will increase customer uptake of loans, the monies generated in this process can then be used to pay off existing debt.

Secondly the study sought to establish the effect of debt to equity ratio on financial performance of deposit taking Sacco's in Nairobi County in Kenya. The study findings showed that debt to equity ratio had a statistically significant negative effect on financial performance. A high debt-to-equity ratio indicates that a Sacco is primarily financed through debt. That can be fine, of course, and it's usually the case for Saccos in the financial industry. But a high number indicates that the Sacco's higher risk. That's why a high debt-to-equity ratio may be a red flag for investors. In fact, it may also turn off lenders, partners and suppliers. Because debt is inherently risky, lenders and investors tend to favor Sacco's with lower D/E ratios. For lenders, a low ratio means a lower risk of loan default. For shareholders, it means a decreased probability of bankruptcy in the event of an economic downturn. A Sacco with a higher ratio than its industry average, therefore, may have difficulty securing additional funding from either source.

The study therefore recommends that Sacco's can use certain tools like debt restructuring in order to lower their debt-to-capital ratio. By using certain bottom-line accounting techniques, the Sacco's can help to make themselves appear in a better financial position without the fear of insolvency.

Thirdly the study sought to determine the effect of short-term to total asset ratio on financial performance of deposit taking Sacco's in Nairobi County. Short-term to total asset ratio had a positive effect on financial performance. The study therefore recommends that the Sasra the regulators should encourage the Sacco's to invest more on short-term debt unlike long-term debt as part of debt restructuring among Sacco's since short-term financing is cheaper and there is an increased return on investment and also an increased return on equity.

5.3 Areas for Further Research

Further study can be done on the effect of financial leverage and financial performance on non-deposit taking Sacco's in Nairobi County in Kenya.

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