

Effect of Liquidity and Dividend Payout on Financial Performance of Deposit Taking SACCOs in Kenya

Robert Shibutse^{a*}, Elizabeth Kalunda^b, George Achoki^c
United States International University, Kenya
shibutser@gmail.com

Abstract

Capital structure is one of the fundamental aspects to the success of Deposit Taking Savings (DPS) and Credit Cooperative Societies (CCS) as it influences the realization of its objectives and goals. The study intended to determine the effect of two capital structure determinants; liquidity and dividend payout, on financial performance as measured by Return on Assets of DPS and CCS, in Kenya. The study was grounded on the Pecking order and Free cash flow capital structure theories. The study utilized a mixed research design using primary and secondary data for the period 2013 to 2017. The population of the study was 174 DPS and CCS. Stratified and purposive sampling technique was employed. Descriptive statistics and a regression model were used to analyze the data. Results revealed that liquidity and dividend pay-out had a significant and positive effect on the financial performance of DPS and CCS in Kenya. The study concluded that liquidity and dividend pay-out play a significant role in the financial performance of DPS and CCS. The study recommends having in place an Assets and Liabilities Committee in each DPS and CCS that would help manage the assets and liabilities of the institution, ensuring adequate liquidity and cash flow management. Having in place a robust dividend policy that addresses; the basis of the rate of payments and activities that would require funding of which internally generated funds by way of dividend retention, is also critical.

Article Info

- **Received** : July 1, 2019
- **Revised** : August 26, 2019
- **Published** : September 15, 2019
- **No. Pages** : 297-312
- **DOI** : 10.33019/ijbe.v3i3.230
- **JEL** : B26, E22, G32, G35
- **Keywords** : *dividend payout, capital structure, financial performance*

1. Introduction

A savings and credit cooperative society (SACCO) is a financial organization formal in nature, owned, controlled, used, and democratically directed by members themselves to address their current economic, social, and cultural needs (International Cooperative Alliance (ICA), 2016). Savings and Credit Cooperatives/Credit Unions represent one of the most important sources of financing in developing countries and the last few years, experiencing tremendous growth all over the world (Lapie & Périlleux, 2008). As at 2008, there were more than 53,000 SACCOs/Credit Union/Cooperative Financial Institution (CFI)/Mutual, serving about 97 countries with membership of over 185million, penetration of 7.7%, Savings of US\$ 995

Billion, Loans of US\$ 847 Billion, reserves of US\$ 115 Billion and total assets of 1.1 Trillion (World Council of Credit Unions (WOCCU),2008). As at 2017, there were more than 89,000 SACCO's/Credit Union/ CFIs/ Mutual, serving 117 countries with membership of over 260million, Penetration of 9.09%, Savings of US\$ 1.7Trillion, Loans of US\$ 1.5 Trillion, reserves of US\$ 195Billion and total assets of 2.1 Trillion (WOCCU, 2017).

In Kenya, SACCO societies were identified to play a key role in deepening financial access, mobilize savings for investments in ventures, and personal development as per the national development blueprint and the Vision 2030 (Mohammed, 2013). In the year ended December 2012, the total assets in the SACCO subsector were Kshs 293 billion, the total number of members was 3 million persons, total deposits wast Kshs 213 billion, and members loans Kshs 221 billion (Ademba, 2013). The commissioner of cooperatives registers and supervises Non-Deposit Taking SACCOs, while Deposit-Taking SACCOs (DT-SACCOs) are licensed and regulated by SASRA after having been duly registered under the Cooperative Societies Act CAP 490 by the commissioner. According to Poulsen (2008), the composition or construction of a firm's liabilities is its capital structure. Taiwo (2012) noted an organizations proportion of short-term and long-term debt which is principally the mix of debt and equity retained by an organization, is its capital structure. Capital underpins cooperatives; members come together to pool money and do more together than they could alone, therefore cooperatives may get bogged down or fail to get off the ground if they cannot get enough capital either due to regulation or long-standing practice, they (Andrews, 2015). Financial performance is a measure of how well an organization employs its primary mode of industry to generate revenue. It involves determining the outcomes of an organizations policies and actions in financial terms based on the apportioned resources to the most feasible ventures that produce earnings which maximize investor's wealth. Different methods can be used to measure financial performance, but all measures should be viewed in aggregation for example financial ratio analysis which has been a convenient way of viewing a summary picture of SACCOs (Milcah & Muturi, 2016).

The progression of free-market capitalism, deregulation of primary trades, and growing global competition have impacted the practicability of the conventional cooperative commercial model (Downing & Schmidt, 2005). The capability to raise equity capital is essential and can be a restrictive aspect of a cooperative's progress and possible competitiveness. The task in obtaining internal that is Member-provided funding in part lies in a steady alteration in member behaviour, as they are increasingly exposed to free-market capitalism (Mikami, 2010). According to Nilsson (2001), the twin character of cooperative members as investors and patrons, when tied with higher than before member heterogeneity that is patron-oriented members and investor-oriented members with different risk profiles, generates tensions and challenges in raising member capital within the conventional cooperative model. In reaction to these concerns, some administrations have endorsed deviations to the conventional cooperative model. Some of these models claim to address the natural faults of the conventional cooperative model and to accommodate the twin needs of cooperative members as investors and patrons (Chaddad & Cook, 2004). The cases of Cooperative Insurance Company (CIC) and Cooperative Bank of Kenya are unique cases where a deviation from the strict cooperative model was achieved. Cooperative Bank of Kenya was initially registered under the Co-operative Societies Act in 1965 when it was founded. Hence unlike the DT-SACCOs, the study focuses on, these two organizations can overcome the natural flaws of the conventional

cooperative model, accommodating the dual cooperative member's needs that are to be patrons and investors as discussed by Chaddad and Cook (2004) and general public needs.

There are several factors, both qualitative and quantitative, including subjective judgment, of organizations management, which together determine a firm's capital structure. According to Shawal (nd), factors such as profitability, liquidity, control, competitive parity, nature of the industry, the timing of issue and characteristics determine an organizations capital structure. Tittman and Wessels (1988) noted that asset structure, non-debt tax shields, growth, uniqueness, industry classification, size, earnings volatility, and profitability, are attributes that different theories of the capital structure suggest may affect the firm's debt-equity choice and therefore are determinants of capital structure. Bauer (2004) noted that several capital structure theory models surveyed had identified many potential determinants of capital structure, but empirical evidence has so far not sorted out which of these are essential in various contexts.

For the year ended 2017, in terms of absolute core capital 161 DT-SACCOs were compliant, 163 DT-SACCOs were compliant with Core Capital to Deposits (CCD) ratios, and in regards to the Core Capital to Assets (CCA) ratio only 146 DT-SACCOs were compliant as compared with the 173 DT-SACCOs which were compliant with the absolute core capital (Sacco Societies Regulatory Authority, 2017). This difference in the comparative level of compliance with the measurements of capital adequacy, indicates that most DT-SACCOs found it easy to meet both the absolute core capital and the CCD ratio, but found it very difficult to attain and maintain the CCA ratio, which consequently results in an exposure of a considerable share of their asset base. This makes it evident that DT-SACCOs are slow in the retention of their surpluses to grow their capital bases but are very quick to lend to their members and build other assets, without proportionate mobilization of deposits or capital funding plan. Further, the number of DT-SACCOs meeting the absolute core capital ratio has dropped from 173 in 2015 to 161 in 2017. This situation could also be because, as the business grows, expansion opportunities can arise that outstrip the financial ability of the DT-SACCO reliant on members' shares and internally generated capital.

Capital structure is arguably fundamental to the success of every institution, including DT-SACCOs as it can, to a significant degree, impact the realization of its objectives and goals. The SACCO industry has confronted threatening challenges globally in recent years, including mission drifts, income generation, compliance, competition, and insufficient capital, among many others (WOCCU, 2012). The principles of cooperation, particularly democratic member control and members' economic participation, influence the choice of capital (Andrews, 2015). The difficulty cooperatives have in raising capital, mainly when competing with corporates and other businesses, is seen by many as the principal drawback for cooperatives in the current environment (Novkovic, 2008; Gentzoglani, 2007; Henry, 2005).

Wasike (2012) study on factors affecting the performance of SACCOs indicated that capital inadequacy, poor asset quality, reduced liquidity, and non-compliance were the key factors affecting SACCOs. Amedeo, Espenlaub, Khurshed, and Simkovic (2010) observed that some cooperatives in Kenya were finding it challenging to operate mainly because of their poor financial state. Mvula (2013) presented a report on common issues affecting the performance of SACCOs and pointed out that the problems affecting the performance of SACCOs are inadequate capital, poor asset quality, poor governance, reduced profitability, poor liquidity, and non-compliance. In last several years, we have seen increased concern from the regulator on DT-SACCO financial management, mainly reflecting on Capital management in the institutions which could potentially impact on institutional performance (Anyanzwa, 2018;

Marete, 2016; Wanzala, 2019; Munaita, 2018). Several DT-SACCOs have encountered challenges in meeting necessary capital ratios as required by SASRA the institution that regulates Kenyan DT-SACCOs. This is an essential problem given that insufficient capitalization, in addition to negatively affecting DT-SACCOs' financial performance, leads to a breach of SASRA's regulations.

Several studies have been carried out on the capital structure, some aspects of capital structure, and other relevant variables and their effects on the financial performance of organizations. These have been limited by; period, geographic scope, Industry, or firm biases, and so far, none has holistically covered all DT-SACCOs in Kenya except Mwatu & Abdul (2018) study which utilized debt, equity, and liquidity as study variables. Thus, this research was necessitated to evaluate the effect of relevant capital structure determinants specifically Liquidity, and dividend pay-out on the financial performance of DT-SACCOs in Kenya giving the significance of each determinant and whether it has a negative or positive effect on financial performance.

The general objective of the research was to establish the effect of determinants of capital structures on the financial performance of DT-SACCOs in Kenya.

The specific objectives of the study were three, namely:

1. To determine how liquidity affects the financial performance of DT-SACCOs in Kenya.
2. To evaluate the effect of dividend pay-out on the financial performance of DT-SACCOs in Kenya.
3. To assess the combined effect of liquidity and dividend pay-out on the financial performance of DT-SACCOs in Kenya.

2. Literature Reviews

Pecking Order Theory

Based on the principle that financing decisions are made in such a way as to cause the least difficulty to management, the Pecking order theory (POT) is said to be a behavioural approach to capital structure (Myers & Majluf, 1984). An organization has a specific order of preferences which it follows in making financing decisions (Myers, 1984). The POT is all about financing the companies by an order from safer too riskier; it means it gives an advantage to internal financing compared to external funding; prefer debt to convertible bonds; prefer hybrid securities compared to equity. The hierarchy of financing firms, according to POT suggests, a portfolio of financing, does not eliminate any kind of funding, but merely provides an order to be followed. According to ICA (2016), Cooperatives should always consider the relative priority for raising capital from the following sources; first from its members, second from other cooperatives and cooperative financial institutions, third from social bonds and social investors, fourth and last from commercial lenders, the financial markets.

Free Cash Flow Theory

The central agency theory as proposed by Jensen and Meckling (1976) and the reality of information asymmetry amongst shareholders and managers, (Jensen, 1986) extended the work to highlight a significant problem, the free cash flow. He defined Free Cash flow as, the cash flow more than that necessary to finance all ventures that have positive net present values when discounted at the applicable cost of capital. When organizations generate a high level of free cash flow, pay-out policies become a severe source of conflict between shareholders and managers. How to inspire managers to disgorge the cash rather than investing it at lower than the cost of capital or wasting it on institutions inefficiencies is usually the task. The theory

covers; first, the advantages of debt in reducing agency costs of free cash flows, and secondly how debt can substitute for dividends.

Conceptual Framework

The conceptual framework of the study is developed from the research objectives (Kothari, 2004). The relationship between the independent and dependent variables is outlined in Figure 1.

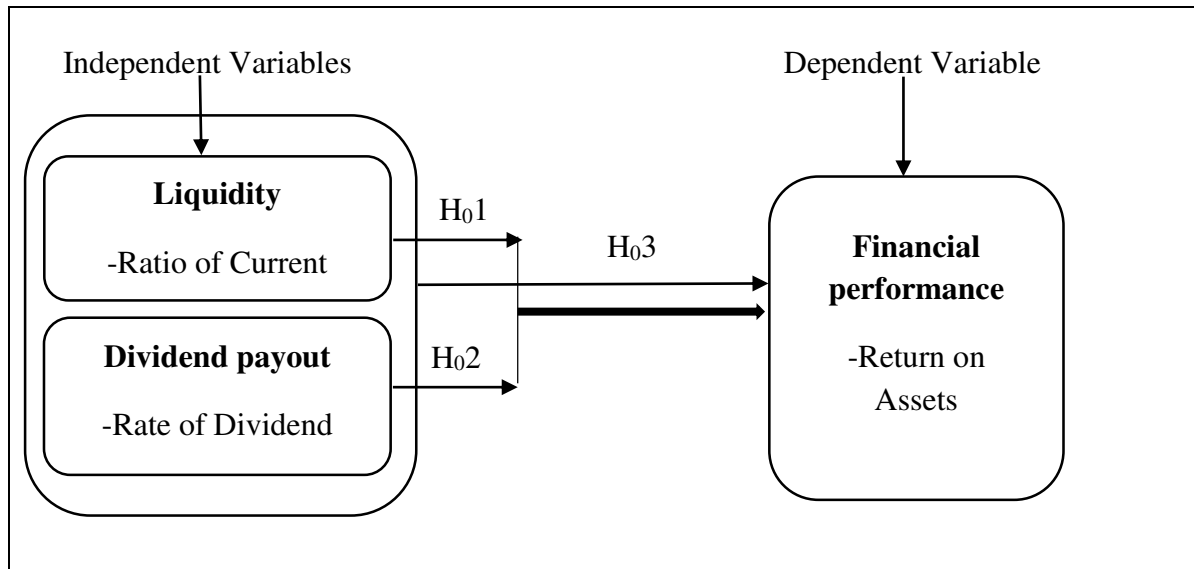


Figure 1. Conceptual Framework

The hypotheses tested in the research were:

- H01** There is no significant effect of liquidity on the financial performance of DT-SACCOs in Kenya.
- H02** Dividend pay-out does not significantly affect the financial performance of DT-SACCOs in Kenya.
- H03** The combined capital structure determinants liquidity and dividend pay-out have no significant effect on the financial performance of DT-SACCOs in Kenya.

Empirical Review

According to Sharma and Paul (2015), the significance of liquidity as a determining factor for the capital structure was indirectly proposed by at least dual strands of literature, which are; one research on the effects of transaction cost on the cost of equity and the other clarifying capital structure choices grounded on trade-off theories. The first study to directly test this inferred association was Lipson and Mortal (2009), their findings based on a sample of US firms, found a significant negative relationship between the equity market liquidity and capital structure. Specifically, they found that measured through several different liquidity measures, liquidity of a firm's equity is a significant predictor of a firm's leverage.

According to Nwankwo (2004), adequate liquidity enables a bank to meet three risks. First is the risk of funding, which is the ability to replace net outflows either by the withdrawal of retail deposits or nonrenewal of wholesale funds. Second, sufficient liquidity is required to allow the bank to compensate for the non-receipt of inflow of funds if the debtor or debtors fail to meet their commitments. The third risk rises from need to honour maturity commitments or from a request for funds from key customers. Having adequate or enough liquidity to meet all

obligations at all times and normal market rates of interest is essential for both large and small banks. Liquidity is the lifeblood of a banking operation.

Kabure (2014) noted that in Kenya, the coming into effect of the SASRA regulations altered the way deposit-taking SACCOs managed their organizations as minimum capital adequacy and liquidity thresholds were affected. To meet these requirements, SACCOs had to reduce the interest rebates to their members while also retaining more to build on their institutional capital. The main study objective was to establish the effect that liquidity has on the investments in the deposit-taking SACCOs in Nairobi. The study findings showed that liquidity had a positive impact on the return on investments in the SACCOs. In addition, the study recommended that a central depository fund for SACCOs be set up to help them have a cheaper avenue for short term borrowing to help address seasonal liquidity challenges. Mwatu and Abdul (2018) found a differing result to Kabure (2014) there study found liquidity to have a negative but insignificant effect on financial performance.

Malombe (2011) in her research asserts that there is an insignificant but positive association between dividend policy and profitability of DT-SACCOs in Kenya. Dabrowska (2009) noted that decisions regarding the most ideal choice of financing and dividend policy are some of the most challenging financial decisions. In her article 'Does dividend policy follow the capital structure theory,' she presents the findings of the study concerning the association between two capital structure theories that is the hierarchical theory and substitution theory, and dividend payments policies for period 2001-2006 of polish stock companies in the agricultural and food sector. The research hypothesis was positively verified; that is, company management limits dividend payment according to the hierarchy theory and prefers internal sources of financing economic activities. This was verified using descriptive analysis, financial analysis, and descriptive statistics together with a fixed-effects model.

3. Research Methods

A positivist research philosophy was adopted for this study. The research adopted a mixed research design. The mixed-method research design involves the collection, analyzing, and interpreting data using both quantitative and qualitative methods offering a complete picture, hence why it is most suited for this study (Cresswell, 2013). The study target population was comprised of the 174 DT SACCOs licensed by SASRA in Kenya. The sampling frame consists of 174 licensed DT-SACCOs which was obtained from the SASRAs 2017 list of licensed DT-SACCOs and were in existence in 2013. To ensure the quality of data collected in terms of ensuring its representative of the DT-SACCOs, the study concentrated on the categorization of SACCOs into the three subgroups/strata by assets size, hence use of stratified sampling. The sample of respondents was then being drawn from each stratum using simple random sampling, improving the representativeness of the sample by reducing sampling error.

The study used the Yamane (1967) formula for determining the sample size given by:

$$n = N / (1 + N e^2)$$

Where n, is the sample size

N is the population size, and e is the margin of error fixed at 5%

From our target population

$$n = 174 / (1 + 174 (0.05^2))$$

$$n = 121.25$$

Hence our sample size was 122 DT-SACCOs.



Secondary and primary data were used in this study. Secondary data was collected from the audited financial statements of the sampled deposit-taking SACCOs for the last five years 2013 to 2017, sourced from SASRA using datasheets. This provided the data on financial information necessary to ascertain the values for financial performance and determinants of Capital structure. The financial information collected was Surplus/Profit after tax, Total Assets, Total fixed assets, Current Assets, Current Liabilities, Total debt, Total equity, and dividend payout rate. A questionnaire which incorporated a Likert scale was used as the instrument of collecting primary data. The respondents for the questionnaires were the senior management team in the SACCOs specifically the CEO and Finance managers as they are the ones responsible for the day to day financial management of the organizations and members of the board or supervisory committees. To test the reliability of the questionnaire the study employed the Cronbach alpha (α), with value of 0.7 being the acceptable cut-off for the study (Nunnally, 1998) This study adopted the self-evident validity, which refers to the degree to which the instrument measures what it's supposed to measure that is face and content validity (Kothari, 2004).

Data was edited and coded into SPSS (Statistical Packages for Social Sciences) software in readiness for analysis, where both descriptive and inferential data analyses were carried out. Regression diagnostic tests for multicollinearity, heteroscedasticity, normality, and linearity were carried out to evaluate the model assumptions. A regression model was used to evaluate the effect of determinants of capital structure on the financial performance of DT-SACCOs in Kenya as presented below;

$$\text{Eq. (1) } Y_i = \beta_0 + \beta_1(X)_i + \varepsilon$$

Where: Y_i = financial performance measured by ROA in this case

β_0 = the y-intercept (constant) for the independent variable

β_1 = regression model coefficient that is the slope which represents the degree with which the financial performance changes as the independent variable changes by one unit.

ε = Error term

$$\text{Eq. (2) } Y_i = \beta_0 + \beta_1\text{LIQ} + \beta_2\text{DIV} + \varepsilon$$

Where: ROA = financial performance of the DT-SACCO

β_0 = the y-intercept (constant) for the independent variables

$\beta_1 \dots \beta_2$ = regression model coefficient that is the slope which represents the degree with which financial performance changes as the independent variables changes by one unit.

LIQ = liquidity

DIV = dividend pay-out

ε = Error term

4. Results

Liquidity and Dividend Payout as Determinants of Capital Structure

From the primary data, we find the level of importance for the determinants of capital structure in the SACCOs, the mean values represent points of convergence of the different respondent's opinions regarding the importance of the determinants of capital structure. Table 1 shows that liquidity was the highest-rated determinant of capital structure (mean=1.57, SD=1.11) followed by Dividend policy (mean=2.34, SD=1.29). The low standard deviations implied that the capital determinant responses dispersed narrowly about the mean, implying low variations in the responses given by the respondents.

Table 1. Rating on Determinants of Capital Structure

	Most important	More important	Important	Less important	Least important	Mean	Std. Dev.	Total (%)
	N (%)	N (%)	N (%)	N (%)	N (%)			
Liquidity	72 (73.5)	10 (10.2)	6 (6.1)	6 (6.1)	4 (4.1)	1.57	1.11	98 (100)
Dividend policy	34 (34.7)	24 (24.5)	22 (22.4)	9 (9.2)	9 (9.2)	2.34	1.29	98 (100)

Source: Authors compilation

Effect of Capital Structure Determinants on Financial Performance

In relation to the level of effect of capital determinants on financial performance, the mean values represent points of convergence of the different respondent's opinions regarding the level of effectiveness of the determinants of capital structure. Table 2 shows that liquidity has the strongest effect on financial performance (mean=1.45, SD=0.94) followed by Dividend policy (mean=2.20, SD=1.26). The low standard deviations implied that the capital determinant responses dispersed narrowly about the mean, implying low variations in the responses given by the respondents

Table 2. Effect of Capital Determinants on Financial Performance

	Most important	More important	Important	Less important	Least important	Mean	Std. Dev.	Total (%)
	N (%)	N (%)	N (%)	N (%)	N (%)			
Liquidity	75 (76.5)	10 (10.2)	7 (7.1)	4 (4.1)	2 (2.0)	1.45	0.94	98 (100)
Dividend policy	37 (37.8)	27 (27.6)	20 (20.4)	5 (5.1)	9 (9.2)	2.20	1.26	98 (100)

Source: Authors compilation

Financial Performance Trend as Measured by ROA

Descriptive statistics were used to compute the means for return on assets for each of the five years, and the results are presented in Table 3. The return on assets ranged from a minimum of -0.37 to a maximum of 1.00. The average return on assets for the five years ranged from a minimum of -0.06 to a maximum of 0.08 with a standard deviation of .01864.

Table 3. Descriptive Statistics for Return on Assets

ROA	N	Minimum	Maximum	Mean	Std. Dev.
2013	98	-.02	.11	.0221	.01971
2014	98	-.02	.12	.0210	.02105
2015	98	-.37	.20	.0168	.05137
2016	98	-.10	1.00	.0330	.10304
2017	98	-.18	.08	.0170	.03687
Mean	98	-.06	.08	.0200	.01864

Source: Authors compilation

The average return on assets were .0221 (2013), .0210 (2014), .0168 (2015), .0330 (2016) and .0170 (2017). ROA was highest in 2016.

Liquidity Trend

Descriptive statistics were used to compute the means for liquidity for each of the five years, and the results are presented in Table 4. The liquidity, as measured by the ratio of current assets to current liabilities, ranged from a minimum of 0.0 to a maximum of 319.09. The average liquidity ranged from a minimum of 0.06 to a maximum of 47.09 with a standard deviation of 9.60914.

Table 4. Descriptive Statistics for Liquidity

Liquidity	N	Minimum	Maximum	Mean	Std. Dev.
2013	98	0.00	35.04	2.7465	4.72916
2014	98	0.00	319.09	5.9051	32.79742
2015	98	.09	78.29	3.7166	9.01277
2016	98	.14	111.51	4.6081	15.10786
2017	98	.17	25.34	2.8567	4.29765
Avg. Liquidity	98	.06	47.09	4.9483	9.60914

Source: Authors compilation

The average liquidity was 2.7465 (2013), 5.9051 (2014), 3.7166 (2015), 4.6081 (2016) and 2.8567 (2017). Liquidity was highest in 2014 than 2016, with 2016 also being the highest year of financial performance for the period under study.

Dividend Payout

Descriptive statistics were used to compute the means for dividend payout for every five years, and the results are presented in Table 5. The dividend payout, as measured by the rate of dividend and rebate, ranged from a minimum of 0.0 to a maximum of 22.50. The average dividend payout ranged from a minimum of 0.00 to a maximum of 21.14 with a standard deviation of 4.78006.

Table 5. Descriptive Statistics for Dividend Payout

Dividend payout	N	Minimum	Maximum	Mean	Std. Deviation
2013	98	0.00	21.95	5.4954	4.42621
2014	98	0.00	17.50	5.2007	4.40653
2015	98	0.00	21.00	6.0592	4.48438
2016	98	0.00	22.50	6.1722	4.60425
2017	98	0.00	21.78	6.1461	4.73614
Average Dividend payout	98	0.00	21.14	6.1745	4.78006

Source: Authors compilation

The average dividend payout was 5.4954 (2013), 5.2007 (2014), 6.0592 (2015), 6.1722 (2016) and 6.1461 (2017). Figure 4.10 shows the movement of the average dividend payout over the five years. Dividend pay-out was highest in 2016, with 2016 also being the highest year of financial performance for the period under study.



Effect of Liquidity on Financial Performance of DT-SACCOs in Kenya

The results for the effect of liquidity on the financial performance of DT-SACCOs in Kenya were assessed using the Pearson correlation coefficient, as shown in Table 6. The output indicates that liquidity had a strong positive and significant relationship with the financial performance of DT-SACCOs in Kenya ($r=.512$, $n=98$, $p<0.05$).

Table 6. Correlations between Liquidity and Financial Performance

		ROA	Liquidity
ROA	Pearson Correlation	1	.512**
	Sig. (2-tailed)		.000
	N	98	98
Liquidity	Pearson Correlation	.512**	1
	Sig. (2-tailed)	.000	
	N	98	98

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Authors compilation

The fourth objective was to determine how liquidity affects the financial performance of DT-SACCOs in Kenya. The research hypothesis formulated from the specific research objective was:

H₀₁ There is no significant effect of liquidity on the financial performance of DT-SACCOs in Kenya.

To test the above hypothesis, linear regression was used to test the relationship between liquidity and financial performance of DT-SACCOs in Kenya. Path coefficients were used to determine the direction and strength while T=statistics provided information on the significance to the relationships. The results are presented in Table 7.

The R^2 for the regression model between liquidity and financial performance of DT-SACCOs in Kenya was 0.262 meaning that financial leverage explains 26.2 % variation in the financial performance of DT-SACCOs in Kenya while the remaining variation is explained by other factors not included in the model. The regression model was a good fit, as indicated by a significant F statistic ($F=34.161$, $p<0.05$). The regression model obtained from the output was;

$$\text{Eq. (3) } Y_i = 0.025 + 0.001 (\text{liquidity}) + \epsilon$$

The unstandardized regression coefficient for liquidity was 0.001. This indicates that a unit increase in the liquidity would result in 0.001 increase in the financial performance of DT-SACCOs in Kenya. The t-statistic for the regression coefficient for liquidity was significant at 5% level of significance ($T=5.845$, $p<0.05$) implying failing to confirm the null hypothesis. By these statistics, the study concludes that there is a significant positive relationship between liquidity and financial performance of DT-SACCOs in Kenya.

Table 7. Effect of Liquidity on Financial Performance

Model	Model Summary			
	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.512 ^a	.262	.255	.01609

a. Predictors: (Constant), Liquidity

ANOVA^a



Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.009	1	.009	34.161	.000 ^b
	Residual	.025	96	.000		
	Total	.034	97			

a. Dependent Variable: ROA

b. Predictors: (Constant), Liquidity

Model		Coefficients ^a				Sig.
		Unstandardized Coefficients		Standardized	t	
		B	Std. Error	Beta		
1	(Constant)	.025	.002		13.629	.000
	Liquidity	.001	.000	.512	5.845	.000

a. Dependent Variable: ROA

Source: Authors compilation

Effect of Dividend Payout on Financial Performance of DT-SACCOs in Kenya

The results for the effect of dividend payout on the financial performance of DT-SACCOs in Kenya were assessed using the Pearson correlation coefficient, as shown in Table 8. The output indicates that dividend payout had a strong positive and significant relationship with the financial performance of DT-SACCOs in Kenya ($r=.510$, $n=98$, $p<0.05$).

Table 8. Correlations between Dividend Payout and Financial Performance

		ROA	Dividend payout
ROA	Pearson Correlation	1	.510 ^{**}
	Sig. (2-tailed)		.000
	N	98	98
Dividend payout	Pearson Correlation	.510 ^{**}	1
	Sig. (2-tailed)	.000	
	N	98	98

** Correlation is significant at the 0.01 level (2-tailed).

Source: Authors compilation

The second objective was to assess the impact of dividend pay-out on the financial performance of DT-SACCOs in Kenya. The research hypothesis formulated from the specific research objective was:

H₀₂ Dividend pay-out does not significantly affect the financial performance of DT-SACCOs in Kenya.

To test the above hypothesis, linear regression was used to test the relationship between dividend payout policy and financial performance of DT-SACCOs in Kenya. Path coefficients were used to determine the direction and strength while T=statistics provided information on the significance to the relationships. The results are presented in Table 9.

The R² for the regression model between dividend pay-out policy and financial performance of DT-SACCOs in Kenya was 0.260 meaning that financial leverage explains 26.0 % variation in the financial performance of DT-SACCOs in Kenya while the remaining variation is explained by other factors. The regression model was a good fit, as indicated by a significant F statistic ($F=33.723$, $p<0.05$). The regression model obtained from the output was:

$$\text{Eq. (4) } Y_i = 0.008 + 0.002 (\text{dividend pay-out}) + \varepsilon$$

The unstandardized regression coefficient for dividend pay-out policy was .002. This indicates that a unit increase in the dividend payout policy would result in 0.002 increase in the financial performance of DT-SACCOs in Kenya. The t-statistic for the regression coefficient for dividend pay-out policy was significant at 5% level of significance (T=5.807, p<0.05) implying failing to confirm the null hypothesis. By these statistics, the study concludes that there is a significant positive relationship between dividend pay-out and the financial performance of DT-SACCOs in Kenya.

Table 9. Effect of Dividend Payout on Financial Performance

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.510 ^a	.260	.252	.01612		
a. Predictors: (Constant), Dividend Payout						
ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.009	1	.009	33.723	.000 ^b
	Residual	.025	96	.000		
	Total	.034	97			
a. Dependent Variable: ROA						
b. Predictors: (Constant), Dividend Payout						
Coefficients ^a						
Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.008	.003		2.905	.005
	Dividend payout	.002	.000	.510	5.807	.000

a. Dependent Variable: ROA

Source: Authors compilation

Effect of Combined Liquidity and Dividend Pay-out on Financial Performance

The objective was to assess the combined effect of liquidity and dividend pay-out on the financial performance of DT-SACCOs in Kenya. The research hypothesis formulated from the specific research objective was:

H₀₃ The combined capital structure determinants liquidity and dividend pay-out have no significant effect on the financial performance of DT-SACCOs in Kenya.

To test the above hypothesis, linear regression was used to test the relationship between liquidity and dividend pay-out on the financial performance of DT-SACCOs in Kenya. Path coefficients were used to determine the direction and strength while T=statistics provided information on the significance to the relationships. The results are presented in Table 10.

The R² for the regression model for the combined effect of liquidity and dividend pay-out on the financial performance of DT-SACCOs in Kenya was 0.450 meaning that liquidity and dividend pay-out explain 45.0 % variation in the financial performance of DT-SACCOs in Kenya while the remaining variation is explained by other factors not included in the model. The regression model was a good fit, as indicated by a significant F statistic (F=42.074,

$p < 0.05$), implying failing to reject the null hypothesis. Based on these statistics, the study concludes that there is a significant combined effect of liquidity and dividend pay-out on the financial performance of DT-SACCOs in Kenya. The regression model obtained from the output was:

$$\text{Eq. (5) } Y_i = .015 + 0.001(\text{liquidity}) + 0.001(\text{dividend pay-out}) + \varepsilon$$

The standardized regression coefficient for liquidity was 0.487. This indicates that a unit increase in the financial liquidity would result in 48.7% decrease in the financial performance of DT-SACCOs in Kenya. The t-statistic for the regression coefficient for financial liquidity was significant at 5% level of significance ($T = 6.514$, $p < 0.05$). The standardized regression coefficient for the dividend was 0.371. This indicates that a unit increase in the dividend would result in a 37.1% increase in the financial performance of DT-SACCOs in Kenya. The t-statistic for the regression coefficient for dividend was significant at 5% level of significance ($T = 4.961$, $p < 0.05$).

Table 10. Effect of Combined Liquidity and Dividend Pay-out on Financial Performance

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
2	.671 ^a	.450	.439	.01422		
a. Predictors: (Constant), Dividend pay-out, Liquidity						
ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
2	Regression	.017	2	.009	42.074	.000 ^b
	Residual	.021	103	.000		
	Total	.038	105			
a. Dependent Variable: ROA						
b. Predictors: (Constant), Dividend pay-out, Liquidity						
Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
2	(Constant)	.015	.003		6.100	.000
	Liquidity	.001	.000	.487	6.514	.000
	Dividend payout	.001	.000	.371	4.961	.000

a. Dependent Variable: ROA
Source: Authors compilation

5. Conclusion

Inferential regression results show a significant positive relationship between liquidity and financial performance. The study indicated that liquidity as an only determinant of capital structure influenced 26.7% of financial performance and a unit increase in liquidity would result in a 0.1% increase in the financial performance of the institution. Hence the rejection of the null hypothesis. The significance of liquidity on performance indicates the more liquid the DT-SACCO, the better its financial performance. This is so as it allows the DT-SACCO to meet its obligations promptly and key, in this case, being loan disbursements which in turn earns revenue by way of interest income improving the financial performance of the organization. These study findings are consistent with those of Wang, (2002) who investigated

liquidity management and its association with performance and corporate value using data of Taiwan and Japan. Furthermore, he found that the cash conversion cycle (CCC) has a negative relationship with the financial performance measured by returns on assets (ROA) or returns on equity (ROE) that is to say, liquidity has a positive relationship with financial performance. However, the findings of this study are inconsistent with that of Mwatu and Abdul (2018), who found an insignificant but negative association between liquidity and financial performance.

Liquidity was ranked top in terms of being a key determinant of capital structure from our descriptive analysis hence its importance in managing DT-SACCO finances. The study objective was to determine how liquidity affects the financial performance of DT-SACCOs in Kenya, with results showing it has a significant positive relationship with financial performance. According to Nwankwo (2004), sufficient liquidity allows organizations meet three risks; first is the funding risk, second is to compensate for the non-receipt of inflow of funds if the debtor or debtors fail to meet their commitments, and third is the ability to honour maturity commitments or request for funds from important customers. All the three have critical implication for the financial performance of DT-SACCOs.

Liquidity is the lifeline of most financial institutions hence why a regulated institution such as microfinance banks, commercial banks, and DT-SACCOs in Kenya have a prescribed minimum. For DT-SACCOs to improve liquidity, they need to enhance their FOSA location presence, through physical presence or use of technology and further have adequate savings and deposits products. However a concern is on the measure of liquidity for DT-SACCOs which is only on FOSA deposits or what we call withdrawable demand deposits, given that there is no separation of FOSA and BOSA deposits from a utilization perspective, it would be prudent for the regulator SASRA to amend this computation to factor in BOSA or non-withdrawable deposit to get a realistic liquidity position picture of DT-SACCOs. Further, it would be important to set up a central liquidity fund in which all DT-SACCOs contribute a percentage of their deposits hence allowing the fund to act as a lender of last resort when a DT-SACCO has liquidity challenges.

Inferential regression results show a significant positive relationship between dividend pay-out and financial performance. The study indicated that dividend pay-out as an only determinant of capital structure influenced 26% of financial performance and a unit increase in financial leverage would result in 0.2% increase in the financial performance of the institution. Hence the rejection of the null hypothesis. In Kenya, most people join SACCOS which have been profitable due to their going concern basis; these institutions are also seen to pay-out a higher dividend. The increase in member number drives up key parameters required from growth, fuelling improved financial performance holding all other factors constant. Malombe 2011), in her research, asserts that there is a positive but insignificant relationship between dividend policy and profitability of DT-SACCOs in Kenya.

Impact of dividend pay-out on the financial performance of DT-SACCOs in Kenya was one of the study objectives, with the results showing a significant positive relationship with financial performance. Thus, one can conclude this is the attraction members have out of the fact or perception in some cases that higher dividend-paying SACCOS are better performing, with membership growth being a key driver to the growth of SACCOS. This fuels increased resources for SACCO utilization through increased share and savings contribution leading to improved financial performance. Whereas increased dividend pay-out is key for membership attraction and retention DT-SACCOs management and leadership have also to consider the sustainability of the same and weigh the cost of borrowing to finance ventures as opposed to

retention, which avails cheaper funds. Hence the need for the development of robust dividend policies in DT-SACCOs. This is critical, especially when it is said some DT-SACCOs borrow to pay dividends creating an illusion that all is well.

References

- 1) Ademba, C. (2013). Speech for the Chief Executive Officer, SASRA during the SACCO leaders Forum, held at KICC on 26th August 2013.
- 2) Amedeo D. C., Susanne, E., Khurshed, A., & Simkovic, M. (2010). *The effects of Ownership and Stock Liquidity on the Timing of Repurchase Transactions*. Prentice-Hall.
- 3) Andrews A. M. (2015). *Survey of Co-operative Capital*. Madison, Filene Research Institute
- 4) Anyanzwa, J. (2018 Wednesday 26). Harambee Sacco to auction houses and land to boost cash flows. *The East African Newspaper*.
- 5) Bauer, P. (2004). Determinants of Capital Structure: Empirical Evidence from the Czech Republic. *Czech Journal of Economics & Finance*, 54(1-2), 2-21
- 6) Chaddad, F.H. & Cook, M.L. (2004). Understanding new cooperative models: ownership–control rights typology, *Review of Agricultural Economics*, 26 (3), 348-360.
- 7) Creswell, J. W. (2013). *Research design: Qualitative, quantitative, and mixed methods approach*. Sage Publications, Incorporated.
- 8) Dabrowska, J.F. (2009). Does Dividend Policy Follow the Capital Structure Theory? *Managing Global Transitions*. 7 (4), 367-382.
- 9) Downing, M., Volk, T.A. & Schmidt, D.A. (2005), “Development of new generation cooperatives in agriculture for renewable energy research, development, and demonstration projects,” *Biomass and Bioenergy*, 28(5), 425-434.
- 10) Gentzoglani, A. (2007). Regulation, governance and capital structure in cooperatives, *Vertical Markets and Cooperative Hierarchies*, Springer, Dordrecht, 151-167.
- 11) Henry, H. (2005). *Guidelines for Cooperative Legislation*, 2nd ed., International Labour Organization, Genève.
- 12) International Cooperative Alliance (2016). *Cooperative Identity, Values & principles*: Available at <https://www.ica.coop/en/cooperatives/cooperative-identity>.
- 13) Jensen, M.C. (1986). Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers. *The American Economic Review*, 76(2), 323-329.
- 14) Jensen, M. C. & Meckling, W. H. (1976). The theory of the firm: managerial behaviour, agency costs and ownership structure, *Journal of Financial Economics*, vol. 3(4), 305-360.
- 15) Kabure, M.J. (2014). The Effect of Liquidity on the Return on Investments for SACCOs in Nairobi. *MSc Thesis*. The University of Nairobi.
- 16) Kothari, C.R. (2004). *Research Methodology: Methods and techniques*. New Delhi. New Age International (P) Ltd publishers.
- 17) Labie, M. & Périlleux, A. (2008): *Corporate Governance in Microfinance: Credit Unions*, Working Paper CEB: No. 08-003.
- 18) Lipson, M. L., & Mortal, S. (2009). Liquidity and capital structure. *Journal of Financial Markets*, 12(4), 611-644.
- 19) Malombe, G.M. (2011). The Effects of Dividend Policy on Profitability of SACCOs with FOSAs in Kenya. *MBA Thesis*, the University of Nairobi.
- 20) Marete, G. (2016, April 8). Bandari Sacco officials in Kshs 5m blame game. *The Daily Nation Newspaper*.
- 21) Mikami K. (2010) Capital procurement of a consumer cooperative: Role of the membership market. *Economic Systems* 34(2), 178-197.
- 22) Milcah & Muturi (2016). Financial factors affecting the performance of deposit-taking savings and credit co-operative societies in Kenya: a case of Kiambu County. *International Journal of Social Science & Information technology*, 2(9), 1163-1179.
- 23) Mohammed, A. (2013). Speech by the Honourable Cabinet Secretary, Ministry of Industrialization and Enterprise Development during the SASRA Sacco Leaders Forum, at KICC on 26th August.

- 24) Munaita, P. (2018, April 17). Metropolitan Sacco probed over cash woes. *The Daily Nation Newspaper*.
- 25) Mvula, R. (2013). *Report on Common issues affecting the performance of SACCO*. Presented in Malawi, 8th August 2013.
- 26) Mwatu, M.D., Abdul, F. (2018). Capital Structure and the Financial Performance of Deposit-Taking Savings and Credit Cooperatives Societies in Kenya. *International Journal of Current Aspects in Finance*, 4(2), 71-88.
- 27) Myers, S. C. (1984). Finance Theory and Financial Strategy, *Interfaces*, 14(1), 126-137.
- 28) Myers, S.C. & Majluf N.S. (1984). Corporate financing and investment decisions when firms have information those investors do not have. *The Journal of Financial Economics*.13(2), 187-221
- 29) Nilsson, J. (2001). Organizational principles for co-operative firms, *Scandinavian Journal of Management*, 7(3), 329-356.
- 30) Nwankwo, G.O. (2004). *Bank Management Principles and Practice*, Lagos: Malt House Press Limited.
- 31) Novkovic, S. (2008). Defining the co-operative difference, *Journal of Socio-Economics*, 37(6), 2168-2177.
- 32) Nunnally, J. C. (1978). Assessment of Reliability. In: *Psychometric Theory* (2nd Ed.). New York: McGraw-Hill.
- 33) Poulsen, A. (2008). *Corporate financial structure*. Indianapolis: Library of Economics and Liberty.
- 34) Sacco Societies Regulatory Authority. (2017). *The Sacco supervision annual report 2017*. Nairobi. SASRA.
- 35) Sharma, P. & Paul, S. (2015). Does Liquidity Determine Capital Structure? Evidence from India. *Global Business Review* 16(1)84-89.
- 36) Shawal, M. (nd). *Capital Structure of a firm; Meaning and its determinants*: Available at <https://www.yourarticlelibrary.com>
- 37) Taiwo, A.M. (2012). An empirical analysis of capital structure on firm's performance in Nigeria. *International Journal of Advances in Management and Economics*, 1(5), 116-124.
- 38) Titman, S. & Wessels, R. (1988). The Determinants of Capital Structure Choice, *Journal of Finance*, 43(1), 1-19.
- 39) Wang, Yung-Jang (2002). Liquidity management, operating performance, and corporate value: evidence from Japan and Taiwan. *Journal of Multinational Financial Management*, 12(2), 159-169.
- 40) Wanzala, O. (2019, February 28). Laxity in Bank purchase leaves teachers with 2 billion mess. *Daily Nation*.
- 41) Wasike, J. (2012). *Corporate governance practices and performance at Elimu Sacco in Kenya*, Unpublished MBA project, University of Nairobi.
- 42) World Council of Credit Unions (2008). *2008 Statistical Report*. Available: http://www.woccu.org/documents/2008_Stat_Report
- 43) World Council of Credit Unions (2012). *2012 Statistical Report*. Available: http://www.woccu.org/documents/2012_Stat_Report
- 44) World Council of Credit Unions (2017). *2017 Statistical Report*. Available: http://www.woccu.org/documents/2017_Stat_Report
- 45) Yamane, Taro. (1967): *Statistics: An Introductory Analysis*, 2nd Ed., New York: Harper and Row.