International Journal of Current Aspects in Finance (IJCAF), Volume IV, Issue II, May 2018, PP 71-88, ISSN 2616-6976

Capital Structure and the Financial Performance of Deposit- Taking Savings and Credit Cooperative Societies in Kenya

Mwatu Mue Daniel[1]

Ms. Farida Abdul[2]

Correspondent Author, School of Business, Kenyatta University[1]

Lecturer, Department of Accounting and Finance, School of Business Kenyatta University[2]

ABSTRACT

The Savings and Credit Cooperatives subsector is a key player in the provision of financial services to Kenyans. Savings and Credit Cooperative Societies play an important role in pooling of financial resources needed for investment and wealth creation. However, although the Savings and Credit Cooperative Societies spur economic growth through mobilization of domestic savings, it has been noted that several of them have been unable to fulfill their mandate of providing loans and other financial services to members due to lack of adequate funds. As a result, the Savings and Credit Cooperative Societies have been forced to seek alternative forms of financing in order to meet the increasing demands for services from members. In addition, the increasing globalization and liberalization of financial markets and economies has led to an increase in the scope and depths of financing options that are available to the Savings and Credit Cooperative Societies. These advancements have significantly increased the options for optimal capital structure for Savings and Credit Cooperative Societies. Capital structure refers to the mix of debt and equity of an organization. The optimal mix of debt and equity is an important consideration for managers given that it impacts the financial performance of the Savings and Credit Cooperative Societies. This study sought to establish the effect of capital structure on the financial performance of Deposit-taking Savings and Credit Cooperative Societies in Kenya. The specific objectives of the study were to investigate the effect of the independent variables: equity, leverage and liquidity on the dependent variable, financial performance. The dependent variable was measured using return on assets. The study was anchored on the Pecking-Order Theory. The study adopted the causal research design and used quarterly quantitative secondary data for all the deposit-taking Savings and Credit Cooperative Societies in Kenya for the period 2012-2016. The data was collected from the Sacco Societies Regulatory Authority's registry, comprising of audited financial statements and quarterly reports submitted by the deposit-taking Savings and Credit Cooperative Societies. The study established that debt has a negative and statistically significant effect on the financial performance of Deposit-taking Savings and Credit Cooperative Societies in Kenya. The effect of equity was found to be positive and statistically significant while the effect of liquidity was found to be negative but statistically insignificant. The findings of the study recommended that deposit-taking Savings and Credit Cooperative Societies should limit the amount of debt in their capital structure, since high levels of debt reduces profitability and increases the chances of financial distress. The study also recommended that deposit-taking Savings and Credit Cooperative Societies should aim at onboarding more members, in addition to mobilizing the existing members to increase their share contributions as a way of raising capital. Further, the study recommends that policy makers should consider reviewing

downwards, the level of minimum liquidity threshold required for deposit-taking Savings and Credit Cooperative Societies.

Key Words: *Capital Structure, Financial Performance, Deposit-Taking Savings and Credit Cooperative Societies in Kenya*

1. INTRODUCTION

A Cooperative is an autonomous association of persons united to meet their common economic needs, cultural needs and aspirations through a jointly owned and democratically controlled enterprise (International Co-operative Alliance, 2017). The traditional cooperatives had the primary objectives of pooling scarce resources, eliminating middle-men, and achieving a common interest. In Africa, people have practiced co-operative ideals for centuries; people grazed communally, built houses, engaged in hunting and tilled land together (Sang, 2011). Today the co-operative movement is governed by principles of open and voluntary membership, democratic administration, member's economic participation, autonomy and independence (International Co-operative Alliance, 2017). Globally, cooperatives have a membership of more than one billion people. More than 250 million persons worldwide earn their income as members or employees of cooperatives (International Cooperatives Alliance, 2017). Research conducted by the International Co-operative Alliance (2017) established that the turnover from the world's 300 top cooperatives amounted to $2.5 trillion (if the cooperatives were a country, they would have the sixth largest economy in the world). The Savings and Credit Cooperatives (SACCOs) have their origins in the co-operative movement. They are financial institutions set up by persons who come together to solve a common problem amongst themselves (Ofei, 2001). Of the one billion members of cooperatives, two hundred and forty million belong to the SACCO subsector. There are over 60,500 Credit Unions globally spread across 109 countries in 6 continents (World Council of Credit Unions, 2015).

Typically, a SACCO constitutes of a minimum of 10 members and usually there is no maximum number. In order to become a member, an individual is required to contribute money for shares. The member is also required to make saving deposits in form of monthly contributions depending on the amount the member is able to save. In a Sacco, members are encouraged to save their money with the SACCO just as they would with commercial banks (Empower, 2016). The SACCO management is tasked with ensuring that members receive loans on a timely basis and interest on their deposits at the end of the financial year. The main use of funds raised by SACCOs is investments in form of giving out loans to members which is the main reason for the formation of these entities particularly for low-income individuals. However, most SACCOs have been unable to successfully carry out their mandate due to lack of sufficient internal funds, high cost of external financing, under capitalization and stringent capital adequacy requirements.

The history of cooperatives in Kenya can be traced to the European settlers who formed the first cooperative called Lumbwa Cooperative Society in 1908 and by 1930s Africans were allowed to form cooperatives (Ouma, 2011). The formation of cooperatives was aimed at helping Kenyans adopt the culture of savings and financial independence. In 1966, the Co-operative Societies Act was enacted. The aim of the act was to regulate the formation, registration and regulation of co-operative societies in Kenya (Republic of Kenya, 1966). Subsequent amendments to the Co-operative Societies Act expanded the definition of Co-

operative Society to include financial cooperatives such as Savings and Credit Societies and Non-financial societies which include produce, marketing, investment and transport cooperatives (Republic of Kenya, 2004). The financial co-operative became popular in Kenya during the 1990s when the Kenyan economy was experiencing severe challenges which resulted in very high-interest rates (SASRA, 2011). During that time, banks were requiring very high minimum account opening and operating balances for individual and business accounts. In response, middle and low-income individuals turned to SACCOs which began to operate bank accounts and introduced Front Office Service Activity (FOSA). Currently, in Kenya, there are two types of Sacco's i.e Deposit Taking SACCOs (DTS) and non-deposit taking SACCOs (Karanja, 2012). According to the SACCO Societies Act of 2008, DTSs are in the business of accepting deposits on a day to day basis while non-deposit taking SACCOs are limited to mobilizing non-withdrawable funds for purposes of member lending (Republic Kenya, 2012). During the period ending 31st December 2017, SASRA reported that there were a total of 177 licensed DTS in Kenya (SASRA, 2017). The Deposit Taking SACCOs (DTS) are regulated by the Sacco Societies Regulatory Authority (SASRA) while the non-deposit taking SACCOs are supervised by the Ministry of Industry, Trade and Cooperatives.

The growth in the number of DTS's has been attributed to the decline in the common-bond structures (SASRA, 2016). Traditionally, most DTS's were formed or founded along specific bond lineages that specified the types of persons who qualify and are eligible to become members thereof. For example, a SACCO could be made up of bankers only, farmers only, teachers only or police officers only. However, these traditional bond lineages are being discarded with most SACCOs allowing membership from every adult citizen. Additionally, the use of online access to payment, use of mobile platforms and issuance of automated teller machine cards has aided in the expansion of SACCOs (Ratemo, 2015). The performance of the DTSs has shown improvement over the years. The key indicators of performance include assets, deposits, loans, capital reserves and membership. During the period 2013-2015, the membership of the DTSs grew from 2,612,250 to 3,145,565 representing a growth rate of 20% (SASRA, 2016). The deposits held increased from Kshs.172Billion in 2013 to Kshs.205Billion in 2014 and increased again to Kshs.237Billion in 2015 representing an average annual growth rate of 17%. The assets owned by DTSs were Kshs.251Billion in 2013, Kshs.301Billion in 2014 and Kshs.342Billion in 2015. During the period 2013 – 2015 the loan portfolio grew by an average of 13.4% per annum while the value of capital grew by 40.8% per annum (Sasra, 2014; 2015). These growth trends are indicators of the importance of these institutions in mobilization of savings and provision of credit to Kenyans. This sub-sector of the economy attained the position of being the largest and most active co-operative financial institution in Africa (Ratemo, 2015)

The DTSs subsector plays a significant role in the achievement of the economic pillars of the country which are enshrined in the Kenya Vision 2030 economic policy blueprint. The subsector contributes significantly to the county's gross domestic product (GDP). This sub-sector contributed 8.8%, 5.63%, and 5.59% of GDP during the years 2013, 2014, and 2015 respectively (Central Bank of Kenya 2014; 2015; 2016). The decline in contribution to GDP has been experienced by all players in the financial sector in Kenya and has been attributed to the unfavourable business climate that prevailed during the period 2014 and 2015 arising

from high-interest rates, low growth opportunities, insecurity and poor weather conditions (Central Bank of Kenya, 2015; 2016).

The prosperity and growth of an organization are mainly dependent on the financial performance. Financial performance is indicative of the financial wellbeing of the institution. It is an indication of managerial and operational efficiency, credit worthiness, return on investments, profits of the business and return on assets (Rahman, 2014). Financial performance is a subjective measure of how well an organization can utilize available assets from its primary business to generate revenue. Erasmus (2008) noted that financial performance measures like profitability and liquidity among others provide a valuable tool to stakeholders to evaluate the past financial performance and the current position of an organization. Studies have shown that financial performance is affected by various factors including the capital structure (Salim & Yadav, 2012). The relationship between capital structure and financial performance has received considerable attention in financial and economic literature. In a seminal paper published in 1958, Modigliani and Miller contended that the capital structure is irrelevant to the value of a firm. In the study, Modigliani and Miller (1958) assumed that perfect market conditions existed whereby all investors have free access to information, no transaction costs, and no tax difference between dividends and capital gains. In 1963, Modigliani and Miller revised their position and took into consideration the tax advantage of debt financing which led to the conclusion that the value of a firm should increase with higher debt ratios.

However, researchers have shown that the assumptions of Modigliani and Miller (1958; 1963) are not always present in modern economies (Donaldson 1961; Kraus & Litzenberger, 1973; Jensen & Meckling, 1976; Myers & Majlut, 1984; Welch, 2004; Brealey, Myers & Allen, 2008; Berk & DeMarzo, 2007; Ghazouani, 2013). Bringham and Gapenski (2016) argued that in theory, the Modigliani and Miller model was valid. However, in practice bankruptcy costs did exist and that these costs were directly proportional to the debt levels. This conclusion implied a direct relationship between capital structure and financial performance. The traditional theories of capital structure advocate for an optimal mix of capital in order to ensure that there is a low weighted average cost of capital that maximizes financial performance (Vătavu, 2015). However, equity and leverage are not the only factors that determine the performance. According to Akintoye (2009), business risks, taxes, managerial behaviour, and financial flexibility in the analysis of performance should be taken into consideration. These factors are important to the capital structure which is based on the trade-off between a given level of risk and the expected returns. These considerations would be used to determine an optimal mix between debt and equity that minimizes the cost of capital and maximizes the company's performance. According to the seminal works of Modigliani and Miller (1963), the choice of capital structure for a firm should be determined by the tax advantage of debt. The tax advantage is received where there is a tax burden and companies would prefer debt in order to obtain a higher performance. One of the key determinates of the capital structure is the cost of capital which has an influence on growth and financial performance (Khalifa-Tailab, 2014). Failure to control the cost of capital can result in financial distress and eventually lead the firm to bankruptcy. Pathak (2011) and Khan (2012) established that the level of debt has a significant negative association with financial performance. These findings were inconsistent with the findings done in many western economies. This is because the cost of borrowing in developing economies was

significantly higher than that in western economies. According to Mwangi, Makau and Kosimbie (2014), the most important consideration when determining the optimal capital structure is the wealth maximizing objective which is reliant on the firm's performance. The managers also have to take into consideration the financial distress. In SACCOs, cost of financial distress include the legal fees, costs of reorganization, and the opportunity cost of funds being tied up during bankruptcy proceedings and lost profits (Institute of Certified Public Accountants of Kenya, 2016).

2. STATEMENT OF THE PROBLEM

Kenya's Sacco sub-sector is the largest in Africa and is a key player in the provision of financial services to Kenyans. SACCO's play an important role in pooling financial resources needed for investment and wealth creation. They spur economic growth through mobilization of domestic savings. The importance of the subsector to the economy is evidenced by their inclusion in the Kenya Vision 2030 economic blueprint as drivers of economic growth (Republic of Kenya, 2007). However, SACCOs have been unable to successfully carry out their mandate due to lack of sufficient internal funds, high cost of debt, under capitalization and stringent capital adequacy requirements (Mwende & Kalio, 2014; Kivuvo & Olwenyi, 2014; Onyango, 2016). The lack of funds has also meant that the SACCOs, particularly DTSs have been unable to repay loans obtained from external sources and recruit qualified and competent staff which has resulted to loss of members as their credit needs are left unmet (SASRA, 2016). This indicates that the capital structure of DTSs is crucial for their success.

Various empirical studies have been undertaken to determine the nature of the relationship between capital structure and financial performance. Most of the studies have produced mixed results. Pathak (2011) established that the level of debt has a significant and negative effect on financial performance of a firm in a study conducted in India. These findings were consistent with many studies conducted in Asian economies but contradict the findings of studies conducted in western economies (Huang & Song, 2006; Chakraborty, 2010). According to Khan (2012), the contradictions in findings can be attributed to different tax regimes, cost of borrowing, research methodologies and measures of financial performance. Different scholars have given different definition and measures of financial performance. Some academicians measure performance by using the total market value of a firm or the sum between the market value of stocks and value of equity options (Cole & Mehran, 1998; Merz & Yashiv, 2007). Other scholars consider market capitalization to be too limited in defining a firm's performance and they prefer to include the value of the firm's operational assets (Mehran, 1995; Ang, Cole, & Lin, 2000; Allen, Carletti, Marquez, 2007), while other scholars have adopted accounting based measurements to indicate firm's performance. These accounting based measurements include return on assets, return on equity and Tobin's Q measures (Majumdar & Chhibber, 1999; Abor, 2005; Saeedi & Mahmoodi, 2011, Ebaid, 2009). Consequently, the empirical findings of the study suggest different effects of capital structure on performance. This study will used accounting based measures i.e. return on assets as an indicator of financial performance.

Various researchers have explored the dynamics of capital structure and the financial performance of SACCOs. Zerfeshwa (2010) investigated the determinants of capital structure and its effect on performance of Savings and Credit Co-operatives in Gondar Towa in

Ethiopia. Zerfeshwa (2010) established that capital structure was crucial to the performance and survival of SACCO's in Ethiopia. This study assessed the effect of capital structure on DTS's in Kenya. Ondieki, Okioga, Okwena and Onsase (2012) assessed the effect of external borrowing on financial performance of SACCOs in Kisii County. Ondieki et al. (2012) however, did not consider the effect of internal finances such as member contributions and member deposits. Mwenda and Kalio (2012) investigated the determinants of capital structure and the effect of capital structure on the profitability of SACCOs. Mwenda and Kalio (2012) established that capital structure had a positive and statistically significant effect on profitability. However, the study only focused on SACCOs operating in Nakuru County. This research project filled this gap by focusing on all licensed DTSs in Kenya. Murkomen, Njeje and Cherono (2017) evaluated the effect of capital structure on the financial performance of SACCOs in Baringo County using qualitative data. Murkomen et al. (2017) established that debt and equity had a weak positive effect on profitability. Whilst the study by Murkomen et al. (2017) used qualitative data, this study used quantitative data to establish the effect of capital structure on the financial performance of deposit-taking SACCOs in Kenya.

3. OBJECTIVES

The main objective of the study was to determine the effect of capital structure on the financial performance of deposit-taking SACCOs in Kenya.

The specific objectives of the study were:

(i) To establish the effect of debt on the financial performance of Deposit-Taking SACCOs in Kenya.
(ii) To assess the effect of equity on the financial performance of Deposit-Taking SACCOs in Kenya.
(iii) To understand the effect of liquidity on the financial performance of Deposit-Taking SACCOs in Kenya.

4. THEORETICAL LITERATURE

Four major competing theories; Modigliani and Miller Theory (1958; 1963), Pecking Order Theory, Agency Theory and Trade-off Theory have emerged as best explanations for the determinants of capital structure decision. This section evaluates these theories.

4.1 Modigliani and Miller Theory

The Modigliani and Miller theorem on capital structure forms the basis for modern thinking on capital structure in the schools of finance and economics. This theorem is associated with Franco Modigliani and Merton Miller. In their seminal works in 1958, Modigliani and Miller (MM) proposed that in a situation where there were not taxes, bankruptcy costs, agency costs, where there was asymmetric information and an efficient market, the value of the firm is unaffected by how the firm is financed (MM, 1958). The theory suggested that the value of the firm did not depend on the dividend policy nor the capital structure, leading to a situation commonly referred to as capital structure irrelevance. In 1963, MM introduced new evidence which showed that the cost of capital which determined the capital structure and consequently the value of the firm was affected by the introduction of taxes. MM (1963) established that introducing taxes gave an advantage to borrowing given that the interest paid on the taxes was tax deductible, which in turn reduced the cost of debt, subsequently

improving the firm's performance. The works of Modigliani and Miller were relevant to this study as they suggested that there are benefits to having debt in the capital structure. This study tried to establish how the external-to-internal fund mix affected the financial performance of DTSs in Kenya.

4.2 Pecking Order Theory

This theory was first postulated by Donaldson (1961) and later refined by Myers and Majluf (1984). This theory begins with the notion of the asymmetric information in a firm. In a firm, the managers have more information about the company's prospects, risks and value as compared to external entities. This information determines the choice of internal and external financing and the choice between the debt and equity (Brealey, Myers, & Allen, 2008). This creates a situation of pecking order for financing the organization. The asymmetry of information implies that the firm would prefer debt over equity as the issuing of debt signals that the board of directors has confidence that the investment is profitable and that the current stock price is undervalued. Issuing of equity would indicate a lack of confidence that would result in a drop in the share price. According to this theory , more profitable firms borrow less due to the inverse relationship between profitability and debt ratio whereby (i) Firms prefer internal financing; (ii) Dividend payout ratios are determined with reference to available investment opportunities, with care being taken to avoid sudden changes in dividends; (iii) Sticky dividend policies coupled with uncertainty surrounding profitability and investment opportunities indicates that internally generated cash flows are sometimes less or more than capital expenditures. When the cash flows are more, the firm pays off debts or buys marketable securities. If the situation is converse, the firm first utilizes the cash balance and then sells the marketable securities rather than reducing dividend. (Brealey *et al.*, 2008). The pecking order theory was relevant to this study as it shows the preferences for financing that the managers of SACCOs have. The theory suggests that managers prefer internal funds to external funds.

4.3 Trade-Off Theory

This theory was developed by Kraus and Litzenberger (1973) as an extension to the MM theory. This theory postulates that the ratio of debt to equity financing is determined by balancing the costs and benefits. According to Kraus and Litzenberger (1973), the firm trades-off the dead weight costs that arise due to bankruptcy and tax shield benefits associated with debt financing. The advantages of using debt are achieved through the tax shield effect while the disadvantages of debt are the costs of financial distress. These scenarios necessitate the company to include equity in the capital structure so as to mitigate the disadvantages associated with debt financing. This theory has received substantial criticism from key academics from the schools of finance and economics. Miller (1977) contends that taxation of firms is certain while bankruptcy is often rarer, thus has an insignificant dead-weight cost. Miller (1977) suggests that, for trade-off theory to hold then the firm would have to have a very large debt level than what is observed in reality. Welch (2004) while studying corporations in the United States found that the corporations did not issue and repurchase debt and equity to counteract the effects of the debt –equity ratio as implied by the trade-off theory. Welch (2004) concluded that the reasons for the composition of capital structure for the corporations were largely mysterious. Despite the criticism, trade-off theory remains central to the concepts of capital structure due to the flexibility of the

model (Ghazouani, 2013). The Trade-Off theory was relevant to this study as it indicates the reason for the composition of the capital structure. Specifically this theory indicates why the SACCOs would request members to have contributions (which are referred to as shares) and non-withdrawable deposits rather than simply having deposits only, like the normal practice in commercial banks.

4.4 Agency Theory

The agency theory was first developed by Berle and Means in 1932. They argued that there was an increase in the gap between ownership and the control of large organizations that was precipitated by a decrease in equity ownership (Roshan, 2009). This situation provided an opportunity for the managers to pursue their own interests rather than maximizing returns to the shareholders. The top managers make decisions that increase the value of the company's stock because they often own shares in the firm in which they are working. Additionally, the managers are hired and retained by the board of directors who are elected by stockholders (Berk and DeMarzo, 2007). In situations where the company has leverage, conflict of interest arises because investment interests have different consequences for the value of equity and the value of debt. This conflict is best depicted in situations where the company is experiencing financial distress. In such situations, managers make decisions that protect the shareholders but disadvantage the creditors (Jensen & Meckling, 1976). This theory was relevant to the study as it suggests that there are other factors such as the actions of the management in financing decisions that can affect the financial performance of deposit-taking SACCOs.

5. EMPIRICAL REVIEW

Iorpev and Kwanum (2012) conducted a study to evaluate the relationship between capital structure and the financial performance of manufacturing companies listed on the Nigerian Stock Exchange. The study used a multiple regression model to investigate performance over the period 2005-2009. The performance was evaluated using profit margin (PM) and return on assets, while the capital structure was measured using long term debts to total assets (LTDTA), short- term debts to total assets (STDTA) and total debt to equity (TDE). The study established that STDTA and LTDTA had an insignificant negative relationship with ROA and PM. The TDE was found to have a positive relationship with ROA and negative relationship with PM. The study was thus able to conclude that capital structure was not a key determinant of the firm's performance. The study by Iorpev and Kwanum (2012) was relevant to this research study since it provides a framework to measure performance. Additionally, the findings are contrary to theoretical literature that maintains that there is a positive relationship between performance and capital structure. This creates a research gap for evaluating theory and empirical findings.

Iavorskyi (2013) investigated the impact of capital structure on the performance of 16,500 companies operating at the Kiev Security Exchange during the period 2001-2010. The study measured performance using ROA, Earnings before Interest and Tax margin and the logarithm of Total Factor Productivity. The capital structure was measured using leverage. The study also included industry dummies and annual dummies. The study established that the relationship between leverage and firm performance was negative. This relationship was observed across all the sectors of the economy. This result is inconsistent with the trade-off theory of capital structure. However, the validity of the pecking-order theory was supported.

This study sought to establish if the concept put forward in pecking-order theory would apply in deposit taking SACCOs in an emerging economy like Kenya as compared to the transitional economy in Ukraine.

Gweyi and Karanja (2014) investigated the effect of leverage on the financial performance of deposit taking SACCOs in Kenya during the period 2010 to 2012. The study sampled 40 SACCOs registered by SASRA. The study used secondary data collected from the financial statements of the organizations. Gweyi and Karanja (2014) adopted descriptive and analytical research design. The study established that there was a positive correlation between leverage (measured by debt to equity ratio) with return on equity and profit after tax. The relationship between leverage and return on assets and income growth was positive and weak. The study by Gweyi and Karanja (2014) only focused on financial leverage. This study focused on all the elements of capital structure. Onyango (2016) conducted a study to investigate the effect of external financing on the growth of Savings and Credit Co-operative Societies wealth in Nairobi County in Kenya during the period 2010-2014. In the study, wealth was measured using borrowings, capital and assets adequacy, earnings and liquidity. The study used descriptive research design. The target population of the study was the 43 licensed SACCOs in Nairobi County as at December 2014. The study used both primary and secondary data which was analyzed using Anova. The study found that the growth in SACCOs' wealth had been increasing yearly during the study period. The study established that external financing has a positive and significant effect on the growth of wealth. The study also established that it was possible to use non-withdrawable capital assets to provide a cushion to absorb losses and impairments of members' savings. The study by Onyango (2016) only focused on SACCOs operating in Nairobi. This study intended to fill the research gap by focusing on all the licensed DTSs in Kenya.

Motivated by the crucial role that the cooperative sector plays on socio-economic development in Kenya, Munyiri and Wekesa (2017) conducted a research study to establish the influence of cash flows on the growth of deposit taking SACCOs in Nairobi County. The study used descriptive research design to collect data for the period 2013- 2015 from 41 deposit taking SACCOs in Nairobi County. In the study, cash flow was measured by member contributions and loan demands while growth was measured using profitability and turnover. The study estimated a multiple regression model which established that there was a positive relationship between cash flow and growth of deposit taking SACCOs in Nairobi County. The study found that cash flow had been increasing following the introduction of regulations that required liquidity levels be maintained at a certain ratio. The research by Munyiri and Wekesa (2017) provides background information on capital structure and operations of SACCOs. This information is relevant to this study. Siddik, Kabiraj, and Joghee (2017) sought to determine the effect of capital structure on the performance of banks in a developing country by focusing on Bangladesh. Performance was measured using ROA and ROE while the capital structure was measured using the ratios of Short-Debt to Total Assets (STDTA), Long-Term Debt to Total Assets (LTDTA) and Total Debt to Total Assets Ratio (TDTA). The study established that TDTA, LTDTA, and STDTA had a significant negative effect on the ROA. The TDTA and STDTA were found to have a significant and negative impact on the ROE. The LTDTA was found to have a positive effect on the ROE. The study thus concluded that in Bangladesh, the effect of the capital structure on performance was negative and significant. The results were attributed to the underdeveloped capital market

that is common in developing countries like Bangladesh which results in information asymmetry, stringent debt requirements and high cost of debt.

6. CONCEPTUAL FRAMEWORK

The conceptual framework below shows the relationship between capital structure and financial performance of deposit-taking SACCOs. The independent variables in the study included equity, debt and liquidity. In the study, equity consisted of member contributions (shares), retained earnings and total reserves. Debt for DTSs included short term debt, long term debt and total member deposits. The dependent variable which was the financial performance was measured using the ROA. Figure 2.1 presents the conceptual framework adopted for the study.

Independent Variables

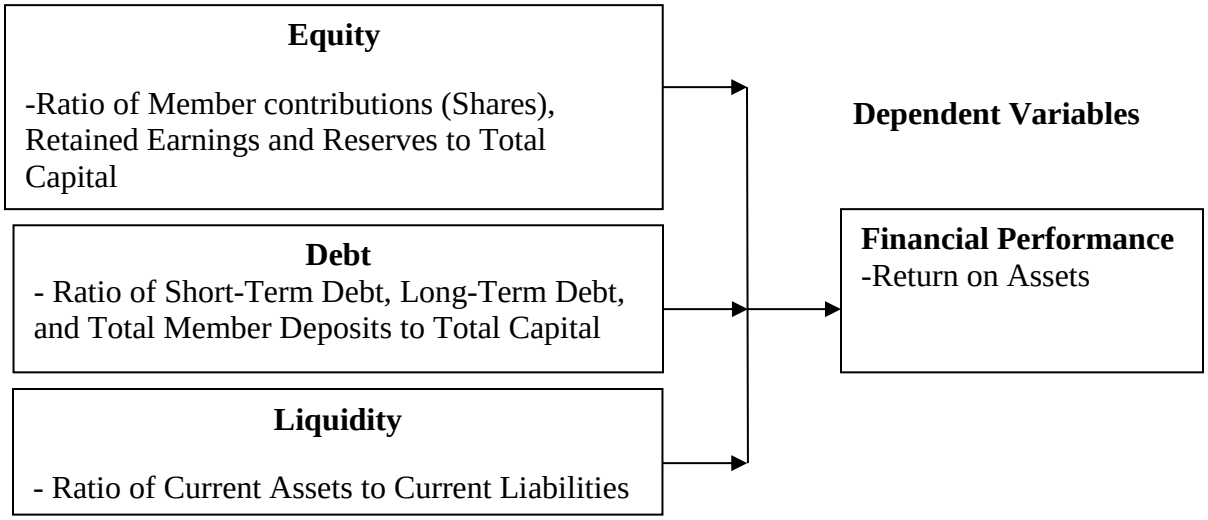

Figure 1: Conceptual Frame work

7. RESEARCH METHODOLOGY

The study adopted the causal research design. This design helps to indicate the nature of the cause-and-effect relationship (Brains, Willnat, Manheim, & Rich, 2011). This approach was suitable for this study as it indicates how a change in a particular variable (the independent variable) affects/impacts another variable (dependent variable) and explains the patterns of relationships between variables. The population for this study was all the 176 deposit taking SACCOs licensed by SASRA as at 31st December 2016 and hence was a census study. In this study the researcher used census method and no sample was carried out since data was collected for all the 176 licensed DTS in Kenya as at 31st December 2016. The study used secondary quantitative data collected from SASRA registry comprising of audited financial statements and monthly reports submitted by the deposit-taking SACCOs. The study focused on the period 2012 to 2016. This is the period when most of the DTSs were licensed by SASRA and had submitted their returns and financial statements to the regulator. The secondary data was collected using a data collection sheet. The researcher wrote to the regulator (SASRA) via email requesting for permission to collect data. The researcher also visited the regulator's registry and collected the relevant data and information as envisaged

by the study. Upon receipt of all the necessary data, the researcher performed data analysis as guided by the research objectives.

All the collected data was cleaned, coded and keyed in to computer for fast and accurate analysis. Ratio analysis was used to calculate the variables by running the data through excel spreadsheets. One of the main advantages of Panel data is that it enables the researcher to control unobserved heterogeneity and secondly, since panel data has both cross-sectional and time series dimensions, it provides the researcher with sufficient data points to reduce the likelihood of biasness in the parameter estimators. The data obtained was analyzed by use of descriptive statistics and inferential statistics. Multiple regression equation was used to estimate the effect of capital structure on the performance of deposit-taking SACCOs in Kenya.

8. FINDINGS

A multiple regression equation was computed using SPSS in order to establish the effect of capital structure on the financial performance of deposit-taking SACCOs in Kenya. The model was subjected to numerous tests in an attempt to ensure reliability. The R and R^2 were computed in order to establish the goodness of fit of the model (Gujarati, 2003). The results of the tests are presented in Table 1;

Table 1: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.675[a]	.650	.641	.0127

a. Predictors: (Constant), Debt, Equity and liquidity)
b. Dependent Variable: ROA

The computed R as presented in Table 1 is 0.675. This value is referred to as the coefficient of correlation. It therefore means that the association between the predictors and the dependent variable is 67.5%. The computed R^2 is 0.650. This value represents the coefficient of determination which summarizes the level of variation in the dependent variable that is attributed to the explanatory variables (Gujarati, 2003). In this model, 65% of the variation in the financial performance of Deposit Taking SACCOs in Kenya is explained by the capital structure (debt, equity and liquidity). The remaining 35% variation is explained by factors not included in the model.

Table 2 below provides a summary of the results of the Anova test also referred to as the F–test. This test measures the significance of the multiple linear regressions. The null hypothesis for the F-test stated that the explanatory variables have no effect on the dependent variable while the alternative hypothesis stated that the explanatory variables had an effect on the dependent variable (Gujarati, 2003).

Table 2: Anova

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.325	3	.108	101.356	.000[b]

Model	Sum of Squares	df	Mean Square	F	Sig.
Residual	.017	16	.001		
Total	.342	19			

a. Dependent Variable: ROA

b. Predictors: (Constant), Liquidity, Debt , Equity

The computed p-value as presented in Table 2 is 0.000 which is less than the critical value of 0.050, thus the alternative hypothesis is rejected and the null hypothesis is accepted. It can thus be concluded that the data collected was appropriate for providing answers to the study questions. The study variables debt, equity and liquidity significantly influence the financial performance of Deposit-taking SACCOs in Kenya. Table 3 below provides a summary of the multiple linear regression coefficient estimates including the intercepts and the significance levels.

Table 3: Regression Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	.788	.053		14.878	.000
	Debt	-.036	.007	-.395	-5.066	.000
	Equity	.212	.037	.094	2.334	.000
	Liquidity	-.014	.019	-.055	-.760	.459

a. Dependent Variable: ROA

The results presented in Table 3 above indicate that debt has a negative and statistically significant effect on the financial performance of DTSs in Kenya ($\beta = -0.036$, p 0.000). The results indicate that a 1% increase in the amount of debt taken by DTS in Kenya will result in a 3.6% decline in the profitability. These results are consistent with the findings of Iavorskyi (2013) who established that debt has a negative effect on profitability. The findings of Gweyi & Karanja (2014) found that the effect of leverage on financial performance although positive was weak. Similarly, this study can also conclude that the effect of leverage on financial performance is weak given that the effect is less than 4%. These findings give credence to the postulations of the Pecking Order Theory which suggests that more profitable firms borrow less because of the inverse relationship between debt and profitability.

The second objective of this study was to establish the effect of equity on the financial performance of DTSs in Kenya. The results presented in Table 4.6 above suggest that equity has a positive and statistically significant effect on profitability (β =0.212, p=0.000). The findings suggest that a 1% increase in the amount of equity will result in a 21.2% increase in the profitability of DTSs in Kenya. These findings are consistent with those of Munyiri and Wekesa (2017) who established that there is a positive relationship between cash flows mostly generated from members' contributions and profitability. These findings further confirm the conclusions put forward in the Pecking-Order theory that internal funds are less costly and thus help firms to generate more profits. The third objective of the study was to

establish the effect of liquidity on the profitability of DTSs in Kenya. The summary of results presented in Table 4.6 indicate that the effect is negative and statistically insignificant (β= -0.014, p=0.459). This indicates that a 1% increase in the amount of liquidity held by DTS's in Kenya will result in a 1.4% decline in the profitability. However, the decline is not statically significant. These findings are inconsistent with the findings of Munyiri and Wekesa (2017). Munyiri and Wekesa (2017) found that liquidity had a positive relationship with the financial performance of SACCOs in Nairobi County. The liquidity levels had been used to cater for the members' needs and increase compliance with SASRA regulations. The contradiction in findings is attributed to the different measures of liquidity. In this study, liquidity was measured using the traditional approach of the ratio of current assets to current liabilities. Munyiri and Wekesa (2017) measured liquidity using members' contributions and loan demands. According to SASRA (2016), the high levels of liquidity maintained by SACCOs were inhibiting their performance. This is because the required liquidity threshold was resulting in funds that could be lent to members or invested in other income generating activities, being held idle (SASRA, 2016). Table 3 indicates the significance of the coefficients tested. The results indicate that the value of the constant, debt and equity were significant while the value of liquidity was insignificant. The non-significant coefficient (liquidity) was removed from the model as it does not predict the dependent variable.

9. CONCLUSION

The findings of the study indicated that debt has a negative effect on the profitability of DTSs in Kenya. The study thus concluded that debt is an expensive option of financing for DTSs in Kenya due to the high costs associated with external financing. This is particularly true in a country like Kenya, a developing economy where interest rates on loans are double digits unlike in developed countries like Japan and the United States where on average, interest rates are single digits. Additionally, the study concluded that the tax benefits associated with debt financing are significantly less than the costs associated with debt financing. The study also established that equity has a positive effect on the profitability of DTSs in Kenya. These findings are consistent with the pecking order theory which suggests that internal funds are cheaper and thus the profits raised from their use are higher. Based on these findings the study concluded that the members' contributions (shares), retained earnings and reserves play an important role in the profitability of DTSs. Lastly, the study established that liquidity has a negative but insignificant effect on the profitability of DTSs in Kenya. Based on these findings, the study concluded that holding high levels of liquidity only serves to increase the stability of the DTSs but not the profitability. In conclusion, the overall objective of the study was to establish the effect of capital structure on financial performance of DTSs in Kenya. Capital structure was measured using debt, equity and liquidity while financial performance was measured using profitability. The study found that debt and equity have a significant effect on the financial performance. The overall conclusion of the study is that capital structure significantly affects the financial performance of DTSs in Kenya.

10. RECOMMENDATIONS

The relationship between debt and profitability in DTSs in Kenya is significant. The level of debt held by a DTS impacts the profitability and by extension the viability of the Sacco. Given the negative and significant association between debt and profitability, the study recommends that DTSs in Kenya should reduce their reliance on external financing and

instead, focus more on internal finances. High debt levels could cause financial distress in DTSs and hence should be minimized. Additionally, the study recommends that when the need arises, DTSs should seek external funds from institutions that offer debt at cheap rates and avoid commercial banks that often charge high levels of interest. Secondly, given that the relationship between equity and profitability is positive and statistically significant, it therefore follows that DTSs in Kenya should seek ways of increasing the equity levels as a way of raising capital. This study therefore recommends that DTSs should aim at onboarding more members, in addition to mobilizing the existing members to increase their share contributions in an effort to build up the level of equity. Lastly, the study found that liquidity does not have significant effect on the profitability of DTSs. The study therefore recommends that policymakers should review policies on liquidity minimum liquidity thresholds required to be maintained by DTSs. This is because liquid assets held idle by DTSs could otherwise be used to generate income. Regulation 15 of the Sacco Societies (deposit-taking Sacco business) regulations 2010, mandates DTSs to maintain a minimum liquidity ratio of 15%. According to the regulations, the liquidity ratio is calculated by dividing the total liquid assets by the sum of total member deposits plus all short-term liabilities. Policy makers should consider reviewing this ratio to below 15%.

REFERENCES

Abor, J. (2005). The effect of capital structure on profitability: An empirical analysis of listed firms in Ghana. *Journal of Risk Finance*, *6*(4): 38-47.

Akintoye, I.R. (2009). Sensitivity of performance to capital structure. *Banking and Finance, Letters, 1(1),* 29-35.

Allen, F., Carletti, E., & Marquez, R.S. (2009). Stakeholders' capitalism, corporate governance and firm value. *Wharton Financial Institutions Center, Finance Working Paper No. 190/2007.*

Ang, J.S., Cole, R.A., & Lin, J.W. (2000). Agency costs and ownership structure. *Journal of Finance, 55(1),* 81-106.

Berk, J., & DeMarzo, P. (2007). *Corporate finance.* Boston: Pearson/Addison Wesley.

Best, J., & Khan, J. (2006). *Research in Education (10th ed.).* New York: Pearson

Brains, C., Willnat, L., Manheim, J., & Rich, R. (2011). *Empirical Political Analysis (8th ed.)*. Boston, MA: Longman.

Brealey, R. A., Myers, S. C., & Allen, F. (2008). *Principles of corporate finance (9th ed.).* New York: McGraw-Hill/Irwin.

Bringham, E., & Gapenski, L. (2016). *Financial management: Theory and Practise (15th ed.).* Boston, MA: Cengage Learning.

Central Bank of Kenya. (2014). Kenya financial sector stability report 2013. Retrieved from: https://www.centralbank.go.ke/reports/financial-sector-stability-reports/

Central Bank of Kenya. (2015). Kenya financial sector stability report 2014. Retrieved from: https://www.centralbank.go.ke/reports/financial-sector-stability-reports/

Central Bank of Kenya. (2016). Kenya financial sector stability report 2015. Retrieved from: https://www.centralbank.go.ke/reports/financial-sector-stability-reports/

Chakraborty, I. (2010). Capital structure in an emerging stock market: The case of India. *Research in International Business and Finance, 24(3),* 295-314.

Cole, R., & Mehran, H. (1998). The effect of change in ownership structure on performance: Evidence from thrift industry. *Journal of Financial Economics, 50(3),* 291-317.

Donaldson, G. (1961). *Corporate debt; a study of corporate debt policy and the determinants of corporate debt capacity.* Boston: Harvard University.

Ebaid, E. I. (2009). The impact of capital-structure choice on firm performance: empirical evidence from Egypt. *The Journal of Risk Finance, 10*(5): 477-487.

Empower. (2016). *How do SACCOs work?* Empower. Retrieved form: http://empowerprojects.org/blog/SACCO/

Erasmus, P. D. (2008). *Evaluating Value Based Financial Performance Measures (Unpublished doctoral dissertation).* Stellenbosch University, South Africa.

Everitt, B.S., & Skrondal, A. (2010). *The Cambridge Dictionary of Statistics (4th ed.).*Cambridge: Cambridge University Press.

Ghazouani, T. (2013). The capital structure through trade off theory evidence from Tunisian firms. *International Journal of Economics and Financial Issues, 3 (3),* 626-636.

Gujarati, D. (2003). *Basic Econometrics* (4th ed.). New York: McGraw−Hill

Hossain, S. (2012). *Multicollinearity in regression analysis.* Retrieved from https://www.youtube.com/watch?v=bx6ZPNyRel0

Huang, S., & Song, F. (2006). The determinants of capital structure: evidence from China. *China Economic Review, 17(1),*14-36.

Iavorskyi, M. (2013). The impact of capital structure on firm performance:evidence from Ukraine (unpublished thesis). Kyiv School of Economics, Ukraine.

Institute of Certified Public Accountants of Kenya. (2016). Mkopo SACCO Limited: Illustrative financial statements as at 31 December 2015. Institute of Certified Public Accountants.

International Co-operative Alliance. (2017). *What is a co-operative.* International Co-operative Alliance. Retrieved form: https://ica.coop/en/what-co-operative.

Iorpev, L., & Kwanum, I. (2012). Capital structure and firm performance: Evidence from manufacturing companies in Nigeria. *International Journal of Business and Management Tomorrow 2 (5),* 1-17.

Jensen, M. C., & Meckling, W. (1976). Theory of the firm: Managerial behavior, agency costs, and capital structure. *Journal Economics, 3,* (4), 305-360.

Karanja, J. (2012). The relationship between size and cost efficiency of SACCOs with front office services activity in Kenya (Unpublished masters' thesis). University of Nairobi, Kenya.

Khalifa-Tailab, M. M. (2014). The effect of capital structure on profitability of American energy firms. *International Journal of American Business and Management Inventions, 3(2),* 54-61.

Khan, I. (2012). Capital structure, equity, ownership and firm performance: Evidence from India. *Social Science Research Network.* Retrieved from: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2016420.

Kraus, A., & Litzenberger, R.H. (1973). A state –preference model of optimal financial leverage. *Journal of Finance, 28 (40),* 911–922.

Majumbar, S., & Chhibber, P. (1999). Capital structure and performance: evidence from a transition economy on an aspect of corporate governance. *Public Choice,* 98, 287-305.

Mehran, H. (1995). Executive compensation structure, ownership, and firm performance. *Journal of Financial Economics, 38(2),* 163-184.

Merz, M., & Yashiv, E. (2007). Labor and the market value of the firm. *American Economic Review, 97(4),*.1419-1431.

Modigliani, F., & Miller, M. (1958). The cost of capital, corporation, finance, and theory of investment. *American Economic Review,48(3),* 261–297

Modigliani, F., & Miller, M. (1963). Corporate income taxes and the cost of capital: A correction. *American Economic Review, 53 (3),* 433–443.

Mugenda, M., & Mugenda,G. (2003). *Research methods: Quantitative And qualitative approaches.* Nairobi: Laba Graphics Services.

Munyiri, P., & Wekesa, S. (2017). The influence of cashflow on growth of deposit taking Saccos in Nairobi County. *Journal of Humanities and Social Sciences, 22(5),* 18-23.

Murkomen, C., & Njeje, D., & Cherono, V. (2017). An assessment of the relationship between capital structure and financial performance of Saccos in Baringo County. *International Journal of Business Management, 19 (3),* 1-13.

Mwangi, L. W., Makau, M. S., & Kosimbei, G. (2014). Relationship between capital structure and performance of non-financial companies Listed in the Nairobi Securities Exchange, Kenya. *Global Journal of Contemporary Research in Accounting, Auditing and Business Ethics (GJCRA), 72-90.*

Mwakabumbe, C. (2013). *Effect of capital structure on performance of microfinance institutions. A survey of SACCO's in Shinyanga Municipal Council (unpublished masters thesis).* University of Mazumbe, Tanzania.

Mwenda, M., & Kalio, A. (2014). Determinants of capital structure in savings and credit societies in Kenya: A case of cooperatives in Nakuru County. *International Journal of Science and Research, 3 (10),* 2413-2417.

Myers, S. c., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. Journal oFfinancia! economics, 3(2), 187- 221.

Ofei, K.A. (2001). *Retooling credit unions: The case of credit union association of Ghana.* International Labour Organization, Working Paper 01-3.

Ondieki, A. N., Okioga, C., Okwena, D. K., & Onsase, A. (2012). *Assessment of the Effect of External Financing on Financial Performance of Savings and Credit Cooperatives in Kisii Central District, Kenya.* Nairobi, Kenya: University of Nairobi.

Onyango, J. (2016). *The effect of external financing on the growth of savings and credit cooperatives wealth in Nairobi County, Kenya (unpublished master's project).* United States International University, Kenya.

Ouma J. (2011); Governance and Performance of Sacco's Institutions; Institute of Development Studies, University of Sussex, UK.

Pandey, I. M. (2010). *Financial management* (10th ed.). New Delhi: Vikas Publishing House Pvt Limited.

Pathak, R. (2011). Capital structure and performance: Evidence from Indian manufacturing firms. *Social Science Research Network.* Retrieved from: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1740424

Pedace, R. (n.d.). *Test for heteroskedasticity with White Test*. Retrieved from http://www.dummies.com/education/economics/econometrics/test-for-heteroskedasticity-with-the-white-test/

Rahman, M. (2014). Financial performance of pharmaceutical industry in Bangladesh with special reference to Square Pharmaceutical Ltd. *Journal of Business and Management, 16 (10),* 45-53.

Ratemo, J. (2015, July 31). Kenyan SACCOs riding on innovation to attract customers. *Biztech Africa.* Retrieved from: http://www.biztechafrica.com/article/kenyan-SACCOs-riding-innovation-attract-customers/10407/

Razali, N., & Wah, Y. (2011). Power comparisons of Shapiro–Wilk, Kolmogorov–Smirnov, Lilliefors and Anderson–Darling tests. *Journal of Statistical Modeling and Analytics.2m(1),* 21–33.

Republic of Kenya. (1966). *Co-operative Societies Act.* Nairobi: Government Printers.

Republic of Kenya. (2004). The Co-Operative Societies Act (Amended), 2004. Nairobi: Government Printers.

Republic of Kenya. (2007). Kenya Vision 2030. Nairobi: Government Printer.

Republic of Kenya. (2012). *SACCO Society Act 2008*. Nairobi: Government Printers.

Roshan, B. (2009). Capital structure and ownership structure: A review of literature. *The Journal of Online Education,* 1-22.

SACCO Societies Regulatory Authority. (2011). SACCO supervision report-2010: Deposit taking SACCOs. Nairobi: Government Printers.

SACCO Societies Regulatory Authority. (2014). SACCO supervision report-2013: Deposit taking SACCOs. Nairobi: Government Printers.

SACCO Societies Regulatory Authority. (2016). SACCO supervision report-2015: Deposit taking SACCOs. Nairobi: Government Printers.

SACCO Societies Regulatory Authority. (2017). *List of SACCO Societies licensed to undertake deposit taking SACCO business in Kenya for the financial year ending December 2017*. Retrieved from: https://www.SASRA.go.ke/index.php/resources/publications/category/11-SACCO-supervision-reports#.WUoNXMbYXIU

Saeed, M. (2016). How to test for heteroskedasticity in eviews. *Meo School of Research*. Retrieved from : https://www.youtube.com/watch?v=D7L7M-SLYJU&t=37s

Salim, M., & Yadav, R. (2012). Capital structure and firm performance: Evidence from Malaysian listed companies. *Procedia-Social and Behavioral Sciences, 65*, 156-166.

Saleemi, N. A. (2009). *Entrepreneurship Simplified* .Nairobi, Kenya: N.A. Saleemi Publications.

Sang, R.K. (2011). *The effect of change in capital structure on the financial performance of SACCOs in Nairobi (*Unpublished MBA Project). University of Nairobi, Kenya.

Saeedi, A. & Mahmoodi,I. (2011). Capital Structure and Firm Performance: Evidence from Iranian Companies. *International Research Journal of Finance and Economics,* 70, 20-29.

Siddik, N., Kabiraj, J., & Joghee, S. (2017). Impacts of capital structure on performance of banks in a developing economy: Evidence from Bangladesh. *International Journal of Financial Studies, 5(13),* 2-18.

Sosa-Escudero, W., Bera, A., & Rojas, G. (2009). Testing under local misspecification and artificial regression. *Working Paper 97,* Universidad de San Andres.

Tochim, W. (2006). Design. *Research Methods Knowledge,* Retrieved from https://www.socialresearchmethods.net/kb/design.php

Văvatu, S. (2015). The impact of capital structure on financial performance in Romanian listed companies. *Procedia Economics & Finance 32*, 1314-1322.

Welch, I. (2004). Capital structure and stock returns. *Journal of Political Economy*, 112(1), 106–132.

Wetsi, S. (2015). *Capital structure and financial performance of listed insurance firms in Nigeria* (Un-published thesis). Kaduna University, Nigeria.

World Council of Credit Unions. (2017). About Us. Retrieved from https://www.woccu.org/

Zerfeshewa, B. (2010). *Determinants of Saving and Credit Cooperatives (SACCO's) financial performance in Gondar town, Ethiopia (Unpublished doctoral dissertation)*. Mekelle University, Ethiopia.