Effect of Liquidity Management and Financial Leverage on Financial Distress in Deposit Taking Savings and Credit Cooperative Organizations in Kenya

Susan Jepkorir  
Student, Department of Accounting and Finance,  
Jomo Kenyatta University of Agriculture and Technology, Kenya

Willy Muturi  
Supervisor, Department of Accounting and Finance,  
Jomo Kenyatta University of Agriculture and Technology, Kenya

Dr. James Ndegwa  
Supervisor, Accounting and Finance, Cooperative University, Kenya

Abstract:  
Financial distress is disruptive and costly, and especially relevant due to the impact on workers, shareholders, customers, suppliers, communities, and the financial entities. Extreme financial distress often leads to bankruptcy; part of the creative self-destruction phenomena that contribute to the dynamics of innovation and economic renewal. This study sought to establish the effect of liquidity management and financial leverage on financial distress of Deposit Taking Savings and Credit Cooperative Organizations in Kenya. A descriptive survey research design was used to establish the determinants of financial distress. The target population included 68 deposit taking SACCOs. Secondary data was obtained from SACCOs records at SASRA. Data collected was analyzed STATA. The study established a p-value of the t-statistic for the estimated coefficient of liquidity is 0.030 which is less than 0.05 indicating that liquidity management as a financial distress determinant had significant influence and distressing effect on probability of financial distress in savings and credit cooperative organizations in Kenya. Secondly, the study established a p-value of the t-statistic for the estimated coefficient of liquidity is 0.227 which is greater than 0.05 indicating that financial leverage as a financial distress determinant had insignificant influence and distressing effect on probability of financial distress in savings and credit cooperative organizations in Kenya.

Keywords: Financial distress, liquidity management, financial leverage, financial management.

1. Introduction  
Financial distress is commonly experienced by small firms (Carter & Van Auken, 2006). Extreme financial distress often leads to bankruptcy; part of the creative self-destruction phenomena that contribute to the dynamics of innovation and economic renewal (Timmons & Spinelli, 2004). Financial distress and bankruptcy are disruptive and costly, and especially relevant due to the impact on workers, shareholders, customers, suppliers, communities, and the financial entities (Carter & Van Auken, 2006).

Researches on corporate distress have identified varying signs of distress. Companies that consistently generate lower realized rate of return compared to the market rate for similar investments, having average return that is lower than the cost of capital or do not have enough revenue to meet their cost can be classified as experiencing business failures (Baharin & Sentosa, 2013). Amoa-Gyarteng (2014) argued that highly leveraged firms may face bankruptcy if they are unable to meet repayment schedules, though it may also increase shareholder Return on Investments. Usdin and Bloom (2012) have identified nine signs of financial distress as: the company not timely paying creditors; the company being sued in collection matters; the company suffering a significant event that will not recur; the company’s bank or secured lender threatening to shut down business operations; a union threatening some type of action against the company; a major supplier threatening to terminate services to the company; the company not being able to perform its contracts on time or cannot perform at all; the liabilities of the company being greater than its assets; and the company’s business model no longer being viable.

Sami (2013) indicates that the financial distress is bound to cash flow problems and incapacity of debts refund. He points out that a firm in distress meets three difficulties: it loses the right to make certain decisions without legal approval; the financial distress can reduce the demand for the product of the firm and increase the production costs; and the managers lose considerable time to solve the financial distress. However, Zhuang and Chen (2014) indicate that the financial state of a company often cannot be observed directly, but only some signal indicators associated with the financial state can be observed.
In Kenya, SACCOs remain the most important players in provision of financial services and have deeper and extensive outreach than any other type of financial institution (ICA, 2002). They provide savings, credit and insurance services to a large portion of the population. Financial sector reforms were adopted in 1989 through the Structural adjustment programs supported by World Bank credit, which included liberalization of interest rate- attained in July 1991, and exchange rate-attained in October 1993. From the year 2010 new developments and intense competition in lending industry in Kenya's economy was witnessed. The introduction of the economic liberalization poses serious challenges to the Sacco’s. The emergence of formal and informal segments in the financial sector fragmentation implies that different segments approach problems such as high transactions costs, risk management, mobilization of funds, grants and capitalization (Steel, 1998).

There are various explanations of the causes of financial distress within co-operative societies in developing countries. However, all of them emphasize the issue of mismanagement in lending and spending, which negatively affect the society members (Mulinge 2003). Many businesses at various times have debts coming due that cause considerable loss of sleep on the part of the owners or managers. They may have a special sale for getting cash immediately to pay their debts or perhaps a bank loan may be obtained. If the need is for long-term funds, a stock issue or a bond issue may be arranged. In some instances, assets other than the stock in trade may be liquidated in order to obtain funds.

According to Outecheva (2007), corporate financial distress is mainly attributed to poor governance, severe competition, adverse economic factors and the capital structure. Parker, Peters, and Turetsky (2002) found that poor corporate governance that encapsulates mismanagement precipitates fraud and corruption and ultimately drive firms into financial failure. In their study, Kapopoulos and Lazaretou (2007) found that severe industry competition leads to decline in sales turnover and hence reduced profitability for the affected firms. The authors argued that if the situation is sustained, the firm suffers from liquidity shortages that culminate in financial distress.

1.1. Liquidity Management as Determinant Financial Distress

According to Vahid,Mohsen and Mohammadreza (2012) liquidity management plays a significant role in determining success or failure of firm in business performance due to its effect on firm’s profitability as well on liquidity. Business success depends heavily on the ability of financial managers to effectively manage the components of working capital (Filbeck & Krueger, 2005). A firm may adopt an aggressive or a conservative working capital management policy to achieve this goal.

Liquid funds play an important role in financial performance of the organization, as the company needs such funds for its day to day running of the organization. Good working capital management reveals higher returns of current assets than the current liabilities to maintain a steady liquidity position of a company (Philip Kotler, 2008). Otherwise; working capital is a requirement of funds to meet the day to day working expenses. So, a proper way of liquidity management is highly essential to ensure a dynamic stability of the financial position of an organization. Liquidity is considered as part of a company’s operating capital, referring to current asset such as cash in hand cash at bank.

To measure the efficiency of a company’s working capital, people often use net working capital which is defined as the difference between current assets and current liabilities. If current assets are higher than current liabilities, an organization has working capital efficiency, explaining the company’s ability to continue its operations and to have sufficient funds to satisfy both the needs of the members and upcoming operational expenses. On the other hand, an organization may experience inefficiency on its working capital when current liabilities are more than current asset.

Liquidity problems may affect a bank’s earnings and capital and in extreme circumstances may result in the collapse of an otherwise solvent bank. Most microfinance institutions may have to borrow from the market even at an exceptionally high rate during a liquidity crisis. This ultimately causes a decline in the banks’ earnings. Moreover, a bank’s further borrowing to meet depositors’ demand may place the bank’s capital at stake. Thus, debt to equity ratio will rise, affecting the bank’s effort to maintain an optimal capital structure (Muranaga & Ohsawa, 2002).

According to Chandra (2001), normally high liquidity is considered to be a sign of financial strength, however according to some authors such as Neto (2003), high liquidity can be undesirable. This would be due to the fact that current assets are usually the less profitable than the fixed assets. It means that the money invested in current assets generates less return than fixed assets, representing thus an opportunity cost. Besides that, the amounts employed in current assets are usually tied up in the form of inventory or receivables that do not generate income directly.

According to Arnold (2008) points that holding cash also provides some advantages, such as (1) provides the payment for daily expenses, such as salaries, materials and taxes. (2) Due to the fact that future cash flows are uncertain, holding cash gives a safety margin for eventual downturns. And finally (3) the ownership of cash guarantees the undertaken of highly profitable investments that demands immediate payment. Thus, according to Perobeli, Pereira and David (2007), the decision about the liquidity level should be based on optimal levels of liquidity.

A financial system can perform significantly better in open market economy by increasing the availability of funds and allowing risk diversification through efficient channeling of funds (Bekaert et, al. 2000). An efficient financial system can effectively mobilize and allocate resources leading to strong economic growth (Bhetuwal, 2007). Nyamao, Lumumba, Odondo and Otieno (2012) conducted a study to investigate the effects of working capital management practices on the financial performance of small-scale enterprises (SSEs) in Kisii South District, Kenya. The study, which adopted a cross-sectional survey research design, found that working capital management practices were low amongst SSEs as majority of them had not adopted formal working capital management routines. Similarly, their financial performance was on a low average. The study concluded that working capital management practices influence the financial performance of small-scale enterprise.
A study by Dong and Su (2010) concluded that a firm’s profitability and liquidity are affected by working capital management. The study used pooled data for the period between 2006 and 2008 to assess the companies listed in the Vietnam Stock Exchange. The study focused on cash conversion cycle and related measures to evaluate working capital management. The study found that the relationships among these variables were strongly negative, suggesting that profit is negatively influenced by an increase in cash conversion cycle. The study also found that profitability increases as the firm’s collection period and inventory conversion period reduce.

Cash is the most liquid asset of any firm. Naser, et al (2013) have identified cash management as the process of ensuring that enough cash is available to meet the running expenses. It also aims to reduce the cost of cash holding. Cash conversion cycle starts with the purchases of raw materials. Then, the firm starts production process during which these raw materials are converted into finished goods. Finished goods are then sold. The time lag between purchase of raw materials and the sale of goods is identified as the inventory period. Then, the time lag between goods sold and cash received is identified as the collection period of debtors. Moreover, the difference between the stock arrivals to company and cash paid for materials considered as the payable period. The purchase of raw materials and collection of cash for sale identified as operating cycle and cash cycle allow for deduct the payable period from operating cycle.

Odhiambo (2011), the research was a casual study. The population of interest was all the deposit-taking SACCOs licensed by SASSRA in Nairobi County as at 31 December 2011. There were 15 SACCOs that were sampled in the study of which complete data for 13 of them were available and analyzed. The study incorporated data for the last four years (2008 – 2011). In order to analyze the effects of working capital management on the firm’s financial performance, interest rate on member’s deposits as measure of financial performance was used as the dependent variable. The independent variable (working capital management) was measured by cash conversion cycle, current ratio, debt ratio and turnover growth. Spearman’s Correlation analysis was used to establish the interdependence of working capital and financial performance variables. Regression analysis was used to establish the relationship between working capital management and financial performance. Findings of the study indicated that efficient working capital management leads to better financial performance of a SACCO; hence a positive relationship existed between efficient working capital management and financial performance variable.

1.2. Financial Leverage as Determinant of Financial Distress

The firm’s available cash is unable to cover the principal and interest on the bank loan. The liquidity position of the firms, which is measured by current assets to current liabilities, is below the theoretical industry average. As long as liquidity is not maintained, many highly leveraged firms are not able to renegotiate their debt agreement if they are breached contract; rather they go for reorganization, acquisition, merger or liquidation. Thus, the very low volume of liquidity and negative cash flow combined with high leverage leads to financial distress (Outecheva 2007).

As soon as firms have reached a certain level of leverage but do not perform to their business plans, financial distress can happen even in a booming economic environment. High levels of leverage in the firms and increasing volatility make equity value vulnerable, so that each possible decline in the enterprise value may rapidly impair equity (Altman & Hotchkiss 2005).

Roselyne (2007) conducted a study which found that factors that influenced repayment of loans in SACCOs were salary, nature of loans, and control recovery measures that the SACCO Society has in place to check defaulters. The study recommends that there was need for SACCOs to implement sound management, sound control and loan recovery measures. Loan advance should be based on past repayment history of the borrower, salary levels and contributions; and there should be diverse loan products. Roselyne’s (2007) study showed that growth of SACCOs was related to the control of loan default by the stewards. The study did not explain how growth of wealth would be achieved. Adekunle and Henson (2007) in their study found that entrepreneurial alertness was predicated upon being a member SACCO Society and members of SACCOs were better entrepreneurs than nonmembers. They recommended that government needed to develop policies that would create an enabling environment for the development and proper operation of SACCOs. SACCOs would serve as mechanism for the support of entrepreneurs. The main concern by Adekunle and Henson (2007) in their study was how SACCOs would benefit the members but not how the SACCOs’ wealth would grow.

Lee, Koh and Huh (2010) studied the effects of financial distress on U.S. Lodging Industry. The study examined three main determinants of the degree of financial distress: leverage, capital intensity, and internationalization. Findings suggest that leverage increases the degree of financial distress while capital intensity and internationalization reduce financial distress. These findings appeared after controlling for other potential confounding factors: a firm’s growth opportunity, liquidity, size, profitability, and economic conditions. The negative relationship between leverage and Z-scores observed in the study implies that as a firm increases its debt level, the firm’s financial distress increases since high Z-scores indicate a sound financial condition while low Z-scores indicate a financially distressed condition.

Vătavu (2015) examined the impact of capital structure on financial performance in 196 Romanian listed companies. The analysis employed sectional regressions. The study established that over the 2003-2010 period, the most profitable manufacturing companies were those maintaining a high proportion of equity in their capital mix, avoiding borrowed funds. Shareholders’ equity has a positive impact on performance indicators, while total debt and short-term debt have negative relationships with ROA and ROE. Long-term debt shows coefficients with fluctuating signs, and thus the results of these regressions are not always significant and consistent because a large part of this data is missing. Referring to tangibility, companies owning a large proportion of fixed assets register lower earnings. Considering that manufacturing sector assumes valuable investments and continuous development, a direct relationship between tangibility and performance would be expected. However, results indicate that Romanian manufacturing companies either do not use their assets effectively or they do not have sufficient internal funding to undertake profitable investments. Data provides...
information that companies barely use debt with long maturities. Moreover, sometimes they operate without long-term debt over a few years. Therefore, the decision of accessing borrowed funds for their growth opportunities would be an exceptional one. Taxes have a direct impact on performance indicators. Taxes can greatly affect the relationship between equity and performance. Results showed that high taxation makes companies with larger equity ratios and limited fixed assets more profitable.

Ilhan (2018) investigated financial leverage influences profitability of 1,503 listed manufacturing firms in China. For the manufacturing firms, the annual financial information from 2008 to 2016 was obtained from the ORBIS database. An initially a simultaneous equation approach was used to control for potential endogeneity. Further, additional regression analyses are conducted with panel data over the period of 2008-2016 using OLS, Fixed-effects, First-difference, Random-effects and Arellano and Bond’s (1991) two-step Generalized Method of Moments (GMM) methods. The results revealed that the impact of leverage on profitability is inverted U-shaped. In this inverted U-shaped relationship, the positive impact of financial leverage on profitability could be attributed to tax shield, whereas the negative impact might be because of bankruptcy cost, financial distress, severe agency problems and information asymmetry that the listed Chinese firms suffer from because of some institutional characteristics of China.

Yang, Xia and Wen (2016) examined the effect of venture capital (VC) and financial leverage (FL) on enterprise performance utilizing the data from China’s (Growth Enterprises Market) GEM listed companies of 2010-2014. The study used a regression model to empirically study the influence of VC and financial leverage on enterprise performance. The empirical results show that VC has a significantly positive correlation with enterprise performance, which indicates that the participation of VC can promote the improvement of enterprise performance. On the contrary, financial leverage and corporate performance show a significantly negative correlation, which means that debt financing, to a certain extent, will inhibit the performance of enterprises. Further study finds that the negative impact of financial leverage on corporate performance in VC-backed companies is greater and more significant, which indicates that the existence of VC will increase the negative impact of financial leverage on corporate performance.

Astawa, Sudika and Yuliarmi (2015) studied the effects of intangible capital and leverage to improve financial performance of liquid petroleum gas (LPG) agents in Bali, Indonesia. To conduct hypotheses test in order to deliver a fitting model, the research used Structural Equation Modeling (SEM) analysis supported by calculation of Partial Least Square (PLS) program. The study found that the decision of external financing (debt) can improve company’s financial performance. This means that the higher the use of funds sourced from debt, the higher the ability to improve company’s sales and assets of 3kgs LPG agents in Bali Province. Good intangible capital can improve company’s financial performance. The better the company’s social and cultural capitals, the higher its financial performance will become.

1.4. Statement of the Problem

According to Government of Kenya (2009), despite the increased supervision of SACCOs in Kenya through various mechanisms such as the introduction of SASRA regulations, a significant number of SACCOs still face financial distress which has led to the winding up of these SACCOs. The government has made a significant initiative to support co-operative movements through legislation so as to achieve the millennium development goals and vision 2030 objectives of increasing financial inclusion with the registration of over 6700 SACCOs (Kiaritha, 2015). Despite the significant government initiative, a significant 3457 (51%) of the SACCOs have not been operational, whose high rate failures continues to frustrate sustainable development goals and vision 2030 objectives of increasing financial inclusion. This is because many SACCOs can't generate enough cash to meet the member requests for loans and some are forced to borrow money from banks in order to lend to their members which seriously eats into their profit margins. Secondly, the model employed by SACCOs in advancing loans limits the amount of loans that they are able to give; this happen as a result of those guarantors who may have already committed themselves in other loans which hinders the full capacity to give loans to member unlike commercial banks. The study aimed at establishing effect of liquidity management and financial leverage on financial distress in SACCOs in Kenya.

2. Conceptual Framework

A conceptual framework is a set of broad ideas and principles taken from relevant fields of enquiry and used to structure a subsequent presentation (Biklen, 2003). In conducting the study, a conceptual framework will be developed to show the relationship between the independent variables and dependent variable. In this study, the dependent variable is financial distress and the independent variables are; liquidity management, interest rates, debt leverage, capital adequacy and loan advancing models. The constructs and relationships between research variables are illustrated in the following Figure1.
4. Research Design

The study adopted a descriptive survey research design. Descriptive study is concerned with finding out who, what, where and how of the variables of the concerned research. The target population for this study comprised of 176 Deposit Taking Saccos in Kenya. The sample size of 176 DT Saccos was obtained using coefficient of variation. Nassiima (2000) asserts that in most surveys or experiments, a coefficient of variation in the range of 21% to 30% and a standard error in the range of 2% to 5% is usually acceptable.

\[ S = \frac{N(Cv)^2}{(Cv)^2 + (N - 1)e^2} \]

Where

- \( S \) = the sample size
- \( N \) = the population size
- \( Cv \) = the Coefficient of Variation
- \( e \) = standard error

Therefore, the sample size was:

\[ S = \frac{176(0.21^2)}{0.21^2 + (176-1)0.02^2} = 68.04 \approx 68 \text{ DT Saccos} \]

The study will then randomly pick 68 farmers from the universal population of 176 who were the main respondents to the study.

\[ Y_{it} = \beta_0 + \beta_1X_{1it} + \beta_2X_{2it} + e \]

Where:

- \( Y \) = Financial Distress for DT-Sacco \( i \) at time \( t \)
- \( \beta_0 \) = the Y Intercept for DT-Sacco \( i \) at time \( t \)
- \( X_1 \) = Liquidity Management for DT-Sacco \( i \) at time \( t \)
- \( X_2 \) = financial Leverage for DT-Sacco \( i \) at time \( t \)
- \( e \) = the error term

For this study, \( \beta_0 \) is the regression constant while \( \beta_1 \cdot \beta_2 \) is the coefficients of independent variables in regression model.

4. Findings and Discussions

4.1. Descriptive Statistics Liquidity Management

<table>
<thead>
<tr>
<th>Year</th>
<th>Obs</th>
<th>Mean</th>
<th>Std.</th>
<th>Max</th>
<th>Min</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>68</td>
<td>1.06</td>
<td>0.61</td>
<td>3.3</td>
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<tr>
<td>2009</td>
<td>68</td>
<td>3.17</td>
<td>12.07</td>
<td>67.0</td>
<td>0.0</td>
</tr>
<tr>
<td>2010</td>
<td>68</td>
<td>1.20</td>
<td>0.92</td>
<td>4.4</td>
<td>0.1</td>
</tr>
<tr>
<td>2011</td>
<td>68</td>
<td>1.48</td>
<td>2.07</td>
<td>11.0</td>
<td>0.1</td>
</tr>
<tr>
<td>2012</td>
<td>68</td>
<td>1.01</td>
<td>0.81</td>
<td>4.6</td>
<td>0.0</td>
</tr>
<tr>
<td>2013</td>
<td>68</td>
<td>1.48</td>
<td>2.07</td>
<td>11.0</td>
<td>0.1</td>
</tr>
<tr>
<td>2014</td>
<td>68</td>
<td>1.08</td>
<td>0.35</td>
<td>2.6</td>
<td>0.3</td>
</tr>
</tbody>
</table>

Table 1: Liquidity Management Ratio of the SACCOs

Deposit Taking Sacco Liquidity is an indicator of their ability to fund increases in assets and meet obligations as to when they fall due. Liquidity is one of the important financial stability indicators of performance of financial institutions (CBK, 2014). This study measured liquidity using quick assets (cash and cash equivalents) to total liabilities ratio and quick assets (cash and cash equivalents) to total deposits ratio, where quick assets are those assets that are either in cash form or can quickly be converted into cash form and this include treasury bonds and bills, short-term marketable...
securities and other cash-holdings. Quick assets to total liabilities ratio was obtained by dividing the current assets (being the assets considered to be most liquid) over the total liabilities (being the liabilities that are considered to be the most liquid).

The DT Saccos had high quick assets to total liabilities ratio above 10% across the period of the study. The mean quick asset to total liability ratio was highest in the year 2009 with a score of 31.7% and lowest in 2012 with a ratio of 10.1% indicating that there were more liabilities than quick assets during the period. The findings is in line with financial distress theory by Muller, Steyn and Hamman (1986) that states that there is a relationship of deterioration or failure of performance indicating a possibility of the Saccos drifting to a form of financial distress and liquidity especially when the quick asset to total liability ratio tending towards 10% and less in the years 2008, 2010 and 2012.

<table>
<thead>
<tr>
<th>Year</th>
<th>Obs</th>
<th>Mean</th>
<th>Std.</th>
<th>Max</th>
<th>Min</th>
</tr>
</thead>
<tbody>
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<td>2008</td>
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<td>0.19167</td>
<td>0.26</td>
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<td>2009</td>
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<td>0.16167</td>
<td>0.11</td>
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<tr>
<td>2010</td>
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<td>0.16069</td>
<td>0.17</td>
<td>0.9</td>
<td>-0.2</td>
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<td>2011</td>
<td>68</td>
<td>0.17367</td>
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<td>0.0</td>
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<td>2012</td>
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<td>0.17793</td>
<td>0.17</td>
<td>0.9</td>
<td>0.0</td>
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<tr>
<td>2013</td>
<td>68</td>
<td>0.174</td>
<td>0.16</td>
<td>0.9</td>
<td>0.0</td>
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<td>2014</td>
<td>68</td>
<td>0.20069</td>
<td>0.20</td>
<td>1.0</td>
<td>0.0</td>
</tr>
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</table>

Table 2: Financial Leverage of the SACCOS

The DT Saccos financial leverage was measured using the debt equity ratio. The debt to equity ratio used in the study was determined by total liabilities divided by total market value of assets. DER reflects the company’s ability to meet all its obligations, which is indicated by what proportion of equity capital is used to pay the debt. Table 2 shows the descriptive analysis of debt to equity ratio indicating inconsistent trend of mean over time with the year 2014 realizing 20% which was the highest and year 2010 scoring the lowest which was 16% in the period of the study, this indicates that DT Saccos in Kenya engaged less debt to equity in their capital structure mix.

The findings indicate that the higher the leverage the higher the risk, presenting a possibility of the DT Saccos drifting to financial distress. This result was consistent with previous study conducted by Heikal et al. (2014). The results noted that debt to equity ratio is a financial ratio that indicates the proportion of relationship with financial distress and companies will always maintain it at lower levels.

4.3. Financial Distress Probability

<table>
<thead>
<tr>
<th>Year</th>
<th>Obs</th>
<th>Mean</th>
<th>Std.</th>
<th>Max</th>
<th>Min</th>
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</thead>
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<td>0.495</td>
<td>0.278</td>
<td>0.991</td>
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<td>2009</td>
<td>68</td>
<td>0.501</td>
<td>0.327</td>
<td>0.873</td>
<td>0.037</td>
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<tr>
<td>2010</td>
<td>68</td>
<td>0.411</td>
<td>0.108</td>
<td>0.916</td>
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<tr>
<td>2011</td>
<td>68</td>
<td>0.443</td>
<td>0.069</td>
<td>0.692</td>
<td>0.027</td>
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<tr>
<td>2012</td>
<td>68</td>
<td>0.537</td>
<td>0.418</td>
<td>0.708</td>
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<tr>
<td>2013</td>
<td>68</td>
<td>0.492</td>
<td>0.319</td>
<td>0.829</td>
<td>0.416</td>
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<tr>
<td>2014</td>
<td>68</td>
<td>0.511</td>
<td>0.479</td>
<td>0.837</td>
<td>0.293</td>
</tr>
</tbody>
</table>

Table 3: Financial Distress Probability

A company is distressed when it misses interest payments or violates debt covenants. The transformation from a solvent to an insolvent state happens only on the date of maturity if the terminal value of the company's assets is lower than the face value of debt. The study established that the financial distress was highest in the year 2012 at 53.7% and lowest in 2010 at 41.1%. It is important to indicate that generally, the DT SACCOS faced higher financial distress (See table 4.5).
The random effects model on table 4.14 shows that the combined effect of liquidity management and financial leverage by the DT Saccos between 2008 to 2014 on probability of financial distress was statistically significant. A conclusion was therefore made that the independent variables of the study can be used to foretell the outcome of financial distress of DT Saccos between 2008 to 2014. Further analysis shows that liquidity management can be used to predict financial distress of DT Saccos in Kenya apart from financial leverage.

Specifically, liquidity management had statistically significant relationship with the probability of financial distress with p=0.030<0.05 indicating that liquidity management can be used to predict Saccos financial distress, though negatively related. Growth in liquidity management by 1 unit leads to decline in financial distress by 0.0081025 units, holding financial leverage constant.

Second, financial leverage had a statistically insignificant relationship with DT Saccos financial distress, p=0.235>0.05 indicating that financial leverage cannot be used to predict Saccos financial distress. Growth in financial leverage by 1 unit leads to decline in financial distress by 0.1540857 units, holding liquidity management constant.

5. Conclusions and Recommendations

5.1. Conclusions

The aim of this study was to bring to the fore the liquidity management and financial leverage as determinants of financial distress among SACCOS in Kenya. First, the evidence of liquidity ratio significantly predicting financial distress among SACCOS in Kenya confirms the initial hypothesized relationship for the study as well as the relevance of shift ability theory in the corporative context. The better the ability of a SACCOS to convert their assets into hard cash when more liquidity is required lowers the probabilities of defaults and consequently increasing their market credibility. This therefore places a critical emphasis on the need for not only the existence of efficient money market to support asset conversion processes but also access for SACCOS to such markets.

Thirdly, the proportion of debt in the capital structure of SACCOS is a significantly indicator of financial distress. More debt in form of external borrowings as compared to owners’ equity exposes SACCOS to higher probabilities of falling into financial distress. This is in concurrence with the hypothesized relationship where higher debt obligations increase the potential for default risks and largely financial distress. Similarly, the findings support the emphasis of a balance between tax saving arising from debt and decrease in agent cost and bankruptcy and financial distress costs as postulated in the tradeoff theory.

First, from the current evidence indicating the important role of liquidity as a determinant of financial distress, the need for an efficient money market for SACCOS becomes a necessity rather than a choice. While the SACCOS societies Act currently in place intend that SACCOS invests more in government securities as a means of promoting their liquidity, this has not received wider acceptance as indicated by low investment in government bonds and bills. An assessment of the reasons that has prompted the slow adoption and identification of opportunities for improving access to money markets should be considered.

Lastly, with the proportion of debt represented by external borrowings in the total capital structure has a significant influence on the probability of SACCOS falling into distress, close monitoring of debt levels is strongly advocated in the interest of securing member’s deposits. The limits that exist in the current SACCOS Act 2010 should consequently be

| Coef.     | Std. Err. | z   | P>|z|    | [95% Conf. Interval] |
|-----------|-----------|-----|--------|----------------------|
| liquidity | -0.0081025 | 0.003745 | -2.16 | 0.030       | -0.0154426 -0.0007625 |
| leverage  | -0.1540857 | 0.1297724 | -1.19 | 0.235       | -0.408435 0.1002636   |
| _cons     | 0.4779976  | 0.0550046 | 8.69  | 0.000       | 0.3701906 0.5858047   |
| sigma_u   | 0.1071312  | 0.0000000 | 10.24 | 0.000       |                        |
| sigma_e   | 0.24273947 | 0.0000000 | 11.94 | 0.000       |                        |
| rho       | 0.16302825 | 0.0000000 | 8.69  | 0.000       |                        |

Table 4: Combined Effect of Liquidity Management and Financial Leverage on Probability of Financial Distress Using Random Effect Model
emphasized. Equally with minimum borrowing interest rates set out at 2% above the expected lending rates in the Act, emphasis should be directed towards providing opportunities for cheaper credit.

6. References