

Effect of Financial Leverage on Financial Performance of Deposit Taking Savings and Credit Co-operative in Kenya

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Abstract *The aim of this study was an attempt to investigate the effect of financial leverage on financial performance of deposit taking Saccos in Kenya. The sample data was extracted from 40 Savings and Credit Co-operative Societies (Saccos) registered by Sacco Society Regulatory Authority (SASRA) extended from the period 2010 to 2012. The secondary data used for analysis was collected from the financial statements of the various deposit taking Saccos. Two basic approaches descriptive and analytical design were adopted. The results show perfect positive correlation between debt equity ratio with return on equity and profit after tax at 99% confidence interval and a weak positive correlation between debt equity ratio with return on assets and income growth. As the scope of study is limited to the deposit taking Saccos and the sample size is small, the findings of the study must be interpreted with caution and the results may not be generalized to the Sacco sector. This is the first study that examines the relationship between financial leverage on financial performance of deposit taking savings and credit co-operative in Kenya.*

Key words Financial Leverage, Financial Performance, Co-operatives, Saccos

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1. Introduction

1.1. Background of the Study

In the quest to optimize their objective, which hinges primarily on quantifiable performance, financial managers have adopted various capital structures as a means to that goal. A firm can finance its investment by debt and/or equity. The use of fixed-charged funds, such as debt and preference capital along with the owner's equity in the capital structure is described as financial leverage or gearing (Dare and Sola, 2010). An unlevered firm is an all-equity firm, whereas a levered firm is made up of ownership equity and debt. Financial leverage takes the form of a loan or other borrowing (debt), the proceeds of which are (re)invested with the intent to earn a greater rate of return than the cost of interest. If the firm's marginal rate of return on asset (ROA) is higher than the rate of interest payable on the loan, then its overall return on equity (ROE) will be higher than if it did not borrow (Laurent, 2005). On the other hand, if the firm's return on assets (ROA) is lower than the interest rate, then its return on equity (ROE) will be lower than if it did not borrow. Leverage allows a greater potential returns to the investor than otherwise would have been available, but the potential loss is also greater: if the investment becomes worthless, the loan principal and all accrued interest on the loan still need to be repaid (Andy *et al.*, 2002). This constitutes financial risk (Pandey; 2005). The degree of this financial risk is related to the firm's financial structure. The total combination of common equity, preferred stock and short and long term liabilities is referred to as financial structure. That is, the manner in which the firm finances its assets constitutes its financial structure. If short-term liabilities are subtracted from the firm's financial structure, we obtain its capital structure. In other words, the firm's permanent or long-term financing consisting of common equity, preferred stock and long term debt is called capital structure

(Van Horne, 2002). Hence, the objective of financial management in structuring a firm's capital components is to maximize the shareholders' wealth, as a measure of performance. Based on the above the problem of this study is to analyze the implications of financial leverage on performance. Also considering that maximizing accounting profit and maximizing shareholders' value are not identical because of shareholders' losses from agency costs, it is therefore pertinent to see how capital structure affect shareholders' value.

1.1.1. Overview of Saccos in Kenya

In 2007 the ICA ranked the Co-operative Sector in Kenya number seven in the world and one in Africa in terms of membership, capital, number of enterprises, and contribution to national economy. Today, Kenya has about 15,000 registered Co-operatives which can be broadly categorized as non-financial and financial Co-operatives. Non financial co-operative include trading, produce and marketing Cooperatives. Financial Cooperatives include Savings and Credit Cooperatives (SACCO societies), Housing, Union of SACCOs, and Investment Co-operatives. SACCO societies have significantly increased to account for 50% of the registered Co-operatives. The Kenya's national development blueprint and the Vision 2030 recognize SACCO societies as important players in deepening financial access to mobilize savings for investments in enterprises and personal development (Mohammed, 2013). Sacco sub sector comprises both Deposit Taking and non-Deposit Taking Saccos. Non-Deposit Taking Saccos is supervised by the Commissioner for Co-operatives while Deposit Taking Saccos (D.T. Saccos) are licensed and regulated by SASRA. SASRA licenses Saccos that have been duly registered under the Cooperative Societies Act CAP 490. As at December 2012 the total Sacco sub sector assets stood at Kshs. 293 billion and total membership for the sector was 3 million persons. Total deposits for the sector stand at Kshs.213 billion and Loans to members are at Kshs. 221 billion (Ademba, 2013). There are 6,151 registered Saccos out of the total twelve thousand (12,000) registered co operatives, which is about 51% of the total number of co-operatives in Kenya. Out of the 6,151 Sacco 165 are rural Saccos (commodity based) while the rest are Urban Saccos. All Saccos operate Back Office Service Activities and have been able to mobilize over Kshs 180 billion and granted loans to the tune of Kshs 120 billion. Out of the 6,151 Saccos 135 have ventured into front office service activities (FOSA). The FOSA offer bank-like services, like withdraw-able savings, debit cards, advances, deposits, money transfers etc. FOSA activity came about after banks withdrew from many rural areas and the people were left un-banked. Various FOSAs have received Salary Codes from employers and their members' salaries are paid through the FOSAs. The Saccos with FOSAs are spread all over the country and include both Rural and Urban Saccos. The Ministry of Co-operative Development and Marketing (MoCD&M) is responsible for the development of the Cooperative sector through policy and legal framework to facilitate attainment of the national social-economic goals in Kenya (Ademba, 2012). Unlike other commercial establishments, co-operatives are guided by the cooperative philosophy which is based on seven Co-operative Principles formulated by International Co-operative Alliance (ICA). The Sacco Societies Regulatory Authority (SASRA) is a creation of the Sacco Societies Act. The Authority's establishment falls within the broad Government of Kenya's reform process in the financial sector which has the dual objectives of protecting the interests of Sacco members and ensuring public confidence towards the Sacco. This ultimately will spur economic growth through deepening financial access, mobilization of domestic savings and affordable credit to Sacco members (Ademba, 2013).

1.2. Statement of the Problem

A recent study by FSD (2013) revealed that Saccos are facing severe liquidity problems and majorities are unable to meet the demands of their clients for loans and withdrawal of savings. Given this situation, clients despite their loyalty are getting anxious about the future of the Saccos. If this situation is not rectified, we may witness the demise of Saccos which will be a terrible loss for Kenyans. There is need therefore, to understand the effect external financing has on financial performance of Saccos.

The major problem areas facing Saccos include the following; Inadequate Legal and Regulatory frame work i.e. Saccos have not been adequately covered in the Co-operative societies Act of 1966, 1997 and 2004. Low adoption of International Performance Standards, Lack of Disclosure requirement standards, Lack of a Development Strategy framework for Sacco Societies, Low adoption of Information and computer technologies, Poor Human Resource Management leading to high staff-turn over, Capital deficiency and wanting capital structuring models are identified as key challenges facing the regulated Saccos in Kenya. The

situation is made worse by unstable Macro-economic environment coupled with stringent prudential requirement on capital adequacy and liquidity standards. (Ongore *et al.*, 2013) This study therefore, sought to find out the effect of financial leverage on financial performance of Saccos in Kenya.

1.3. Objectives of the Study

1.3.1. General Objective

The main objective of this study was to explore the effect of financial leverage on financial performance of deposit taking Saccos in Kenya.

1.3.2. Specific Objective

The study pursues the following specific objective:

To examine the effect that Debt Ratio has on Financial Performance of deposit taking Saccos in Kenya.

1.4. Research hypotheses

This study sought to address the following pertinent research hypothesis:

H₁ Debt Ratio has a positive effect on Financial Performance of deposit taking Saccos in Kenya.

1.5. Justification

The study of capital structure is relevant to both researchers and managers. The major issues faced by the finance managers are not only to receive or gather the funds but also their meaningful deployment in order to generate maximum returns.

Mostly the sources of finance across all the businesses are same, then why some businesses succeed while other doesn't see the light of day. This clearly means that there is something beyond financial success of business besides great idea and good geographic presence.

This makes it more attractive to study the effect of financial leverage on financial performance of deposit taking Saccos in Kenya.

1.6. Definition of Key Terms

Financial Leverage- According to Pandey (2008) it is the existence of debt in a firm's capital structure of a firm

Financial Performance- It is a general measure of a firm's overall financial health over a given period of time. Leontief (2011)

Co-operative- According to ICA (2006) a co-operative is an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically controlled enterprise.

Savings and Credit Co-operative (SACCO) - It is a type of co-operative whose objective is to pool savings for the members and in turn provide them with credit facilities. Additional objectives of SACCOs are to encourage thrift amongst the members and also to encourage them on the proper management of money and proper investments practices. Where in urban areas salary and wage earners have formed Urban SACCOs, in rural areas, farmers have formed Rural SACCOs. There are also transport, jua-kali, traders and community based SACCO's.

2. Literature Review

2.1. Theoretical Literature Review

2.1.1. The Trade-Off Theory

The term trade-off theory is used by different researchers to describe a family of related theories. A decision maker running a firm evaluates the various costs and benefits of alternative leverage plans. Frequently it is assumed that an interior solution is obtained so that marginal costs and marginal benefits are balanced.

The original version of the trade-off theory grew out of the debate over the Modigliani-Miller theorem. When corporate income tax was added to the original irrelevance, this created a benefit for debt in that it served to shield earnings from taxes. Given that the firm's objective function is linear, and there is no offsetting cost of debt, this implied 100% debt financing.

Several aspects of Myers' definition of the trade-off merit discussion. Foremost, the target is not directly observable. It may be imputed from evidence, but that depends on adding a structure.

Different papers add that structure in different ways.

Next, the tax code is much more complex than that assumed by the theory. Depending on which features of the tax code are included, different conclusions regarding the target can be reached. Graham (2003) provides a useful review of the literature on the tax effects.

Thirdly, bankruptcy costs must be deadweight costs rather than transfers from one claimant to another. The nature of these costs is important too. Haugen and Senbet (1978) provide a useful discussion of bankruptcy costs.

Fourthly, transaction costs must take a specific form for the analysis to work. For the adjustment to be gradual rather than abrupt, the marginal cost of adjusting must *increase* when the adjustment is larger. Leary and Roberts (2005) describe the implications of alternative adjustment cost assumptions.

2.1.2. The Pecking Order Theory

The *pecking order theory* does not take an optimal capital structure as a starting point, but instead asserts the empirical fact that firms show a distinct preference for using internal finance (as retained earnings or excess liquid assets) over external finance. If internal funds are not enough to finance investment opportunities, firms may or may not acquire external financing, and if they do, they will choose among the different external finance sources in such a way as to minimize additional costs of asymmetric information. The latter costs basically reflect the “lemon premium” (Akerlof, 1970) that outside investors ask for the risk of failure for the average firm in the market. The resulting pecking order of financing is as follows: internally generated funds first, followed by respectively low-risk debt financing and share financing.

In Myers and Majluf model (1984), outside investors rationally discount the firm's stock price when managers issue equity instead of riskless debt. To avoid this discount, managers avoid equity whenever possible. The Myers and Majluf model predicts that managers will follow a pecking order, using up internal funds first, then using up risky debt, and finally resorting to equity. In the absence of investment opportunities, firms retain profits and build up financial slack to avoid having to raise external finance in the future.

The pecking order theory regards the market-to-book ratio as a measure of investment opportunities. With this interpretation in mind, both Myers (1984) and Fama and French (2000) note that a contemporaneous relationship between the market-to-book ratio and capital structure is difficult to reconcile with the static pecking order model. Iteration of the static version also suggests that periods of high investment opportunities will tend to push leverage higher toward a debt capacity. To the extent that high past market-to-book actually coincides with high past investment, however, results suggest that such periods tend to push leverage lower 209.

Empirical evidence supports both the pecking order and the trade-off theory. Empirical tests to see whether the pecking order or the trade-off theory is a better predictor of observed capital structures find support for both theories of capital structure (Shyam-Sunder and Myers, 1999; Fama and French, 2002).

2.2. Empirical Literature Review

A few empirical studies have been performed to analyze the relationship between leverage and corporate performance. Gweyi, Minoo and Luyali (2013) in their paper “Determinants of leverage of Savings and Credit Co-operative Societies in Kenya”. The study sample included 40 Sacco registered by Sacco Society Regulatory Authority (SASRA) extended from the period 2010 to 2012. For the data analysis, regression model was employed; the explanatory variables comprised of firm size, growth rate, liquidity profitability and tangibility, whereas the explained variable was the leverage ratio. The results show that for Saccos; there were statistical significant relationships. The results from the study revealed that firm size has significant

relationship with leverage at 99% confidence level, whereas liquidity and tangibility have significant relationship with leverage at 95% confidence level.

Obradovich and Gill (2013) had researched on the Impact of Corporate Governance and Financial Leverage on the Value of American Firms. For this purpose a sample of 333 firms listed on New York Stock Exchange (NYSE) for a period of 3 years from 2009-2011 was selected. The co-relational and non-experimental research design was used to conduct this study by taking firm value as dependent variable and CEO Duality, Board Size, Audit Committee and Financial Leverage as dependent variable. The purpose of this study was to find the impact of corporate governance and financial leverage on the value of American firms. Overall outcomes show that larger board size negatively impacts the value of American firms and CEO duality, audit committee, financial leverage, firm size, return on assets and insider holdings positively impact the value of American firms.

Hasanzadeh *et al.* (2013) had investigated the Effects of Financial Leverage on Future Stock Value at Stock Exchange. The research statistical population was consisted of those Tehran stock exchange listed active cement industry companies analyzed from 2005 to 2008. By taking financial leverage and market to book value ratio as variable and to analyze data and test hypothesis of the present research, descriptive and inferential analyzing methods and SPSS statistical software were applied. They concluded that leverage does not affect future stock value of the firm. The results indicate non-response of capital market against levered nature of the firm. Lack of relationship between leverage and firm value approves net operational income (NOI) theory and Miller and Modigliani (M.M) theory.

Akhtar *et al.* (2012) had investigated the impact of influence on shareholders return. In their paper "Relationship between Financial leverage and Financial Performance: Evidence from Fuel & Energy Sector of Pakistan, they demonstrated that financial leverage has got a positive relationship with financial performance". Hence, the companies in the fuel and energy sector may enhance their financial performance and can play their role for the growth of the economy while improving at their optimal capital structures. In their study they employed a sample of 20 listed public limited companies from Fuel and Energy sector listed at Karachi Stock Exchange (KSE). The study aimed at measuring the relationship between financial leverage and the financial performance. To test the hypothesis, the main variables used in the study consist of a dependent variable which is financial performance of fuel and energy sector while an independent variable financial leverage in fuel and energy sector.

Akinmulegun Sunday Ojo (2012) in his paper "The Effect of Financial Leverage on Corporate Performance of Some Selected Companies in Nigeria empirically examines the effect of financial leverage on selected indicators of corporate performance in Nigeria". Leverage therefore significantly affects corporate performance in Nigeria. Other detailed objectives are to: Examine the impact of leverage on the earnings per share and net assets per share of corporate firms in Nigeria. The econometric findings presented in this study evidence that leverage shocks (debt/ equity ratio) have significant effect on corporate performance especially when the net assets per share (NAPS) is used as an indicator of corporate performance in Nigeria over the period covered by the study. Earnings per share depend on feedback shock and less on leverage shock. Also, the outcome exposed that the influence shock on earnings per share indirectly disturb the net assets per share of firms as the majority of the shocks on the net assets per share was received from earnings per share of the firms.

2.3. Conceptual Framework

2.3.1. Dependent and Independent variables

After discussing the different theories of capital structure now we discuss the dependent and independent variables for our study. The dependent variable which is used in this study is the financial performance of the deposit taking Saccos in Kenya. The financial performance will be measured by using five indicators named as, Return on Equity (%), Return on Assets (%), Net Profit Margin (%) and Income Growth (%). In this study we use financial leverage as independent variable which is measured by using Debt Ratio. The relationship between dependent and independent variable can be explained by the following equation:

$$\text{Financial performance} = a + b (\text{financial leverage}) + E$$

2.3.2. Conceptualization

Independent Variables Financial Leverage

Debt – Equity Ratio

Dependent Variables Financial Performance

- Return on Equity
- Return on Assets
- Profitability
- Income Growth

3. Research Methodology

3.1. Introduction

This chapter presents the research methodology that was applied in undertaking the study. In order to carry out the study, data collection, data analyses and data interpretation was undertaken. Details of how the activities were carried out are outlined below.

3.2. Research Design

Two basic approaches descriptive and analytical design were adopted. The descriptive design uses ratios to highlight the effect of financial leverage on Sacco financial performance; while the analytical design assessed using a mathematical model the nature and significance of the effect of financial leverage on Sacco financial performance.

3.3. Target Population

The Target population of study is the Saccos in the Kenyan Co-operative industry which operates front office service activities (FOSA) and has been registered by Sacco Society Regulatory Authority (SASRA). They are presently 135 licensed deposit taking Saccos (DTS) in number.

3.4. Sampling Frame

The sampling frame was the list of all the registered Sacco by Sacco Society Regulatory Authority (SASRA).

3.5. Sampling and Sampling Technique

The sample data was extracted from 40 Savings and Credit Co-operative Societies (Saccos) registered by Sacco Society Regulatory Authority (SASRA) extended from the period 2010 to 2012 through convenience sampling technique.

3.6. Data Collection Instruments

The secondary data used for analysis was collected from the financial statements of the various deposit taking Saccos. This was the most viable sources available and of course, only secondary sources such as those mentioned above could suffice for the analysis by virtue of the nature of the variables.

3.7. Data Processing and Analysis

Correlation analysis was used to find out the relationship between financial leverage and financial performance and also to examine how significant financial leverage affects Sacco financial performance.

4. Data Analysis and Discussion

4.1. Introduction

This chapter presents the results of the data analysis. Secondary data in the form of published financial reports of forty (40) deposit taking Sacco was obtained from the SASRA. This data was then converted to the

desired form and entered into SPSS version 21. Data analysis was then conducted to generate descriptive and correlations output. These results are as shown in the proceeding sections.

4.2. Descriptive Statistics

In table 1 statistical analysis of financial leverage indicator is shown. The maximum value of debt – equity ratio is 664.09 while the minimum value is 2.89 while the average for the industry is 73.1817 with a standard deviation of 141.11733.

Table 1. Statistical Analysis of Financial Leverage Indicators

| | N | Minimum | Maximum | Mean | Std. Deviation |
|-------------------|----|---------|---------|---------|----------------|
| DEBT EQUITY RATIO | 40 | 2.89 | 664.09 | 73.1817 | 141.11733 |

In table 2 statistical analysis of financial performance indicator is shown. The maximum value of return on equity is 79.57 while the minimum value is .04 while the average for the industry is 9.2775 with a standard deviation of 17.94284. The maximum value of return on assets is 23.61 while the minimum value is .49 while the average for the industry is 12.6223 with a standard deviation of 5.40236. The maximum value of income growth is 14.20 while the minimum value is -13.15 while the average for the industry is 4.5250 with a standard deviation of 4.94188. The maximum value of profit after tax is 2,290,717,472.00 while the minimum value is 4,880,461.00 while the average for the industry is 239,802,837.80 with a standard deviation of 417,890,981.35.

Table 2. Statistical Analysis of Financial Performance Indicators

| | N | Minimum | Maximum | Mean | Std. Deviation |
|------------------|----|--------------|------------------|----------------|----------------|
| RETURN ON EQUITY | 40 | .04 | 79.57 | 9.2775 | 17.94284 |
| RETURN ON ASSETS | 40 | .49 | 23.61 | 12.6223 | 5.40236 |
| INCOME GROWTH | 40 | -13.15 | 14.20 | 4.5250 | 4.94188 |
| PROFIT AFTER TAX | 40 | 4,880,461.00 | 2,290,717,472.00 | 239,802,837.80 | 417,890,981.35 |

4.3. Correlations analysis

Table 3 shows the relationship between debt/equity ratio and various financial performance indicators. The Pearson’s r for the correlation between the Debt/Equity ratio and ROE variables is 0.994. This means that there is a strong relationship between the two variables. Since the Sig (2-Tailed) value is less than 0 .05. We can conclude that there is a statistically significant correlation between the two variables at the 0.01 level. The Pearson’s r for the correlation between the Debt/Equity ratio and Profitability variables is 0.662. This means that there is a strong relationship between the two variables. Since the Sig (2-Tailed) value is less than 0 .05. We can conclude that there is a statistically significant correlation between the two variables at the 0.01 level. This is in line to the positive relationship hypothesized in H1. Hence, H1 is supported.

Table 3. Correlations analysis of financial performance indicators with Debt Equity Ratio

| | DEBT EQUITY RATIO | RETURN ON EQUITY | RETURN ON TOTAL ASSETS | PROFITABILITY | INCOME GROWTH |
|------------------------|-------------------|------------------|------------------------|---------------|---------------|
| DEBT EQUITY RATIO | 1 | .994** | .005 | .662** | .044 |
| RETURN ON EQUITY | .000 | 1 | .974 | .000 | .788 |
| RETURN ON TOTAL ASSETS | .994** | .073 | 1 | .684** | .048 |
| PROFITABILITY | .000 | .653 | .021 | 1 | .767 |
| INCOME GROWTH | .005 | .073 | .898 | .311 | 1 |

| | DEBT EQUITY RATIO | RETURN ON EQUITY | RETURN ON TOTAL ASSETS | PROFITABILITY | INCOME GROWTH |
|---------------|-------------------|------------------|------------------------|---------------|---------------|
| | 40 | 40 | 40 | 40 | 40 |
| | .662** | .684** | .021 | 1 | .139 |
| PROFITABILITY | .000 | .000 | .898 | | .392 |
| | 40 | 40 | 40 | 40 | 40 |
| | .044 | .048 | .164 | .139 | 1 |
| INCOME GROWTH | .788 | .767 | .311 | .392 | |
| | 40 | 40 | 40 | 40 | 40 |

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

5. Conclusion and Recommendations

5.1. Conclusion

The study has contributed to the ongoing debate on capital structure determinants by adducing the effect of financial leverage on financial performance among deposit taking Saccos in the Kenyan context. The findings from the student indicate that there is a strong correlation between financial leverage and financial performance of Saccos in Kenya. This is in line to the positive relationship hypothesized in H1. Hence, H1 is supported. This is in line with the studies by Obradovich and Gill (2013), Gweyi, Minoo and Luyali (2013), Akinmulegun Sunday Ojo (2012)

5.2. Areas for further Research

Future researchers may extend study period and may also take all the deposit taking Sacco that are regulated by SASRA. Researcher can also conduct comparative study by taking data from deposit taking Saccos and Non deposit taking Sacco to check the relationship between financial leverage and financial performance.

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