

Determinants of Capital Structures in Savings and Credit Cooperative Societies in Kenya: A Case of Co-Operatives in Nakuru County

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Abstract: Capital structure is very fundamental in every organization. It is essentially a mix of debt and equity maintained by a firm. The complexity of the capital structure determines sources of financing for a given entity. The importance of capital structure cannot be understated as exemplified by various global, regional and local studies. Therefore, it is fundamentally important to establish the various determinants of capital structure and the extent to which those determinants affect the capital structure. Capital structure is argued to be very crucial to the success of SACCOs. Several SACCOs are noted to have failed to meet the stipulated capitalization threshold which has affected both its members and employees. The study sought to establish the determinants of capital structures in SACCOs in Kenya. The study, however, specifically sought to assess the relationship between firm's profitability and capital structure. As such, profitability and capital structure constituted the independent and dependent variables respectively. The study was conducted among SACCOs within Nakuru County. A descriptive research design was adopted. The target population comprised of 296 management staff working in the aforementioned SACCOs. A sample of 75 respondents was drawn from the target population using simple random method. A structured questionnaire was employed to collect primary data from the respondents. The instrument was pilot tested with the object of assessing both its reliability and validity. The collected data underwent both descriptive and inferential analyses with the aid of the Statistical Package for Social Sciences. Profitability was found to exhibit a positive, strong, and statistically significant relationship with capital structure and as such, it was asserted to be a major determinant of capital structure. Profitability was deduced to be positively and strongly correlated with capital structure. The study recommends that, SACCOs should ensure that they enhance their profitability so that they may strike a balance between retained earnings and debt when financing their operations.

Keywords: Capital structure, leverage, Nakuru County, profitability, SACCOs

1. Introduction

Capital structure, in finance, is said to be how a firm finances its assets through a combination of equity, debt, or hybrid securities. In other words, the capital structure is the composition or structure of its liabilities [13]. It was further stated [14] that, capital structure is a firm's proportion of short-term and long-term debt and is essentially a mix of debt and equity maintained by a firm. It is advised that, wise companies use the right combination of debt and equity with the object of keeping their true cost of capital as low as possible. Depending on the complexity of the capital structure, there may be several sources of financing. It was found out that internal sources of funds are lesser risky than external sources. It is asserted that, managers do not always run the firm to maximize returns to the shareholders. He further asserted that principal-agent problem can be dealt with to some extent through the capital structure by increasing the debt level and without causing any radical increase in agency costs.

According to Kenya Union of Savings and Credit Co-operatives, a co-operative society is an organization of people who have voluntarily come together for the purpose of solving their socio-economic problems through self-help initiatives, mutual support, and investment ventures objected to benefit the members. There are several common types of co-operatives in Kenya. Savings and credit cooperatives (SACCOs) are part of them. A SACCO is said to be a cooperative whose objective is to pool savings for its members and in turn provide them with credit facilities.

SACCOs are further said to provide their members with prudent financial management and investment practices.

When studying market timing and capital structure [4] it was asserted that, it is well known that firms are more likely to issue equity when their market values are high, relative to book and past market values, and to repurchase equity when their market values are low. They further documented that, the resulting effects on capital structure are very persistent. An empirical study on financial risk factors (capital structure, operation ability, profitability, and solvency) as evidenced from listed companies in China [7] indicated that, there is no significant correlation between financial risk and debt structure. The financial risk was further established to be significantly and positively correlated with the current ratio, net profit margin, net asset ratio, and fixed asset ratio.

In an empirical analysis of capital structure on performance of firms in Nigeria [14], the object was to examine the optimum level of capital structure through which a firm could increase its financial performance. Their findings indicated existence of a negative and significant relationship between asset tangibility and return on assets (ROA). They further established that, asset turnover, size, age of the firm, and firm's asset tangibility are positively related to firm's performance. When studying effect of capital structure on firm's performance, an experience of Nigerian [1], it was quipped that, the effect of different capital structure and differing business risk are reflected in a firm's income statement. It was added that, operating leverage tends to magnify the effect of fluctuating sales and produces a percentage change in operating income larger than the

changes in sales. Another study [5] assessed the effect of strategies of SACCOs on members' savings mobilization in Nairobi, Kenya. Their study was limited to a sample of 30 SACCOs drawn from 2,500 SACCOs in Nairobi area. They noted that savings mobilization enhances capital accumulation which leads to investment and ultimate economic growth. As such, savings constitute capital structure of SACCOs to a huge extent. It is further posited that, SACCOs ought to overcome the low confidence amongst their members which results from low expectations of achieving capital gains from their savings among other factors. The importance of capital structure cannot be understated as exemplified by different global, regional and local studies. Therefore, it is fundamentally crucial to establish the various determinants of capital structure and to which extent the former affect the capital structure.

2. Statement of the Problem

Capital structure is arguably very important to the success of every organization including SACCOs. The modalities of financing a SACCO can to a large extent influence the achievement of the firm's objectives and goals. Some sources of financing are argued to be less risky than others. However, the degree of risk is not the only parameter that should stipulate the source of financing. Several SACCOs have been facing hurdles in meeting requisite capital threshold as stipulated by SASRA which is the body that regulates SACCOs in Kenya. This is a fundamental problem since inadequate capitalization does not only compromise SACCOs' financial operations but they may be contravening SASRA's regulations. The implications of the foregoing are far-reaching since SACCO members and employees are bound to be affected. The national economy is also likely to be affected given that SACCO membership in Kenya runs into millions. Needless to say, therefore, this study was necessitated in order to assess the determinants of capital structure of SACCOs in Kenya. The object was to suggest recommendations which if and when implemented could go a long way in solving problems associated with capital structure of SACCOs.

3. Objectives

3.1 General Objective

o establish the determinants of capital structures in Savings and Credit Cooperative Societies in Kenya

3.2 Specific Objective

To determine how profitability influences capital structures in Savings and Credit Cooperative Societies in Nakuru County

4. Research Hypothesis

H₀₂: Profitability does not significantly influence capital structures in Savings and Credit Cooperative Societies in Nakuru County

5. Conceptual Framework

The conceptual framework (Figure 1) outlines the relationship between independent and dependent variables. The independent variable is relative advantage. On the other hand, the dependent variable is adoption and use of mobile banking.

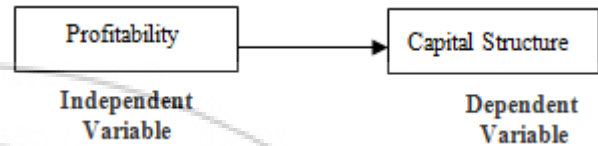


Figure 1: Conceptual Framework

6. Literature Review

In this part, theories and studies pertinent to determinants of capital structure are reviewed. The empirical studies are in tandem to both independent and dependent variables

Theoretical Review

6.1.1 Traditional Theory of Capital Structure

This theory assumes that there is an optimal capital structure and that the firm can increase its total value through the shrewd use of leverage. Figure 2 illustrates the traditional theory of capital structure.

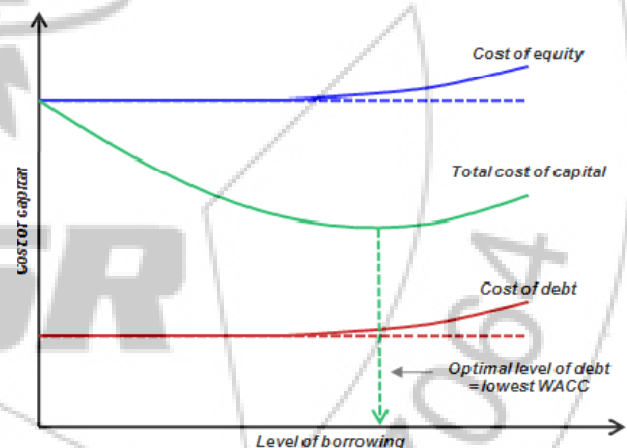


Figure 2: Traditional Theory of Capital Structure [3]

The main propositions of the traditional approach are: the cost of debt capital remains more or less constant up to a certain degree of leverage but rises thereafter at an increasing rate; the cost of equity capital remains more or less constant or rises only gradually up to a certain degree of leverage and rise sharply thereafter; the average cost of capital as a consequence of the above behaviour of the cost of capital of equity and debt:- (i) decreases up to a certain point; (ii) remains more or less unchanged for a moderate increase in leverage thereafter; and (iii) rises beyond a certain point as shown in Figure 2.

6.1.2 The Modigliani-Miller (MM) Theorem

The original proposition of MM theorem advocated that the relationship between leverage and the cost of capital as explained by the net operating income approach. Managers act in the interest of shareholders and the firms can be grouped into equivalent risk classes on the basis of their

business risk. The MM proposition states that the value of a firm is independent from its corporate financing decisions under certain conditions. The theory assumes a perfect capital market where there is no problem of asymmetric information, there are no transaction costs, and no bankruptcy cost and the securities are infinitely divisible. It also assumes that there are no corporate or individual taxes [3]

There are two major propositions under this theory. The first proposition indicates that, the value of the firm is considered to be independent of its capital structure. This proposition is more or less similar to that of the net operating income approach. The value of a firm viewed as a function of expected operating income divided by the discount rate appropriate to its risk class.

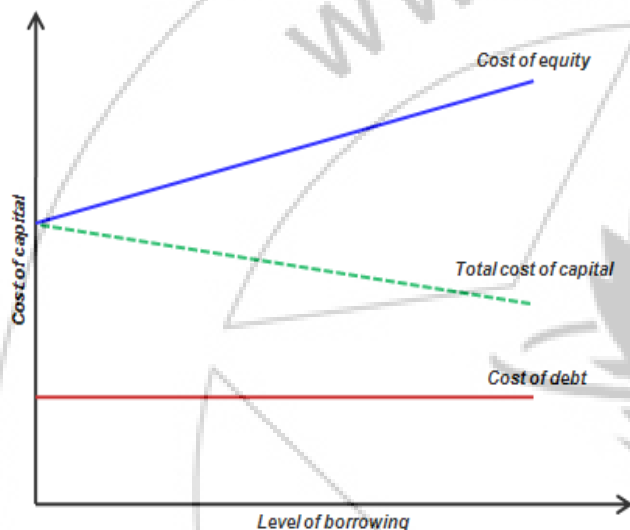


Figure 3: Modigliani and Miller Proposition II [3]

Figure 3 illustrates MM II where as debt financing increases the overall cost of capital decreases. Interest on debt is an allowable expense when determining a company's tax liability and lowers the tax burden. Thus it has an effect of shielding corporate profits which is a benefit to the ordinary shareholder. As the level of debt increases so too does the tax benefits which offsets some of the risk that the ordinary shareholder would require as per MM I. As the increases in the required return by ordinary shareholders is lower than the benefits of debt, the overall cost of capital decreases as the level of borrowing increases.

6.2 Empirical Review

This section reviews studies that have hitherto been conducted on profitability in the light of capital structure.

6.2.1 Profitability and Capital Structure

In a study conducted in Jordan on factors affecting adoption of mobile profitability was measured as the ratio of earnings before taxes (EBT) divided by total assets. However, more recent studies measured profitability in form of ROA (earning after taxes / total assets). A study conducted in [2] showed that high profits would encourage a firm to finance itself from those profits. In other words, there is a negative relationship between leverage and past profitability. On the other hand, it was found [6] that, profits and leverage are negatively correlated. A study conducted in India analyzed

profitability in relation to sales and also in relation to investment.

The relationship between capital structure and financial performance is such that they are inverse to each other [6]. The studies by the aforementioned scholars provided empirical evidence supporting this negative relationship between debt levels and a firm's performance. A study was conducted on capital structure and corporate performance in Jordan [15]. The study argued that, growth opportunities are a vital determinant of firms' performance. In tandem, they asserted that firms with growth opportunities are able to generate profits from their investments. An empirical study was conducted [7] on financial risk factors among the listed companies in China. The factors revolved around capital structure, operation ability, profitability, and solvency. The financial risk was established to be negatively correlated with net profit margin. Another study had earlier empirically analyzed factors influencing financial risk of Chinese listed companies. Though, they asserted that financial risk of enterprises had a positive correlation with liabilities scale and liabilities structure, they found that there existed a negative relationship between financial risk and profitability.

In yet another study [14] it was asserted that it is imperative for Nigerian firms to be in a position to finance their activities and grow over time. This is if at all the aforementioned firms are to ever contribute towards creating value addition, providing employment and also income in terms of profits, dividends and wages to households. The scholar also notes that the size of a firm is a crucial determinant of its profitability. He posits that larger firms are more likely to be able to leverage their market power than smaller ones, and as such have an effect on profitability.

In a study on factors contributing to liquidity problems on saving and credit co-operatives (SACCOs) in Kenya [8] it was asserted that there were delays in remittance, loan default, low monthly earnings and failure to invest in illiquid investments that led to losses hence lowering the profits of SACCOs. The study only dealt with issues that affected liquidity and financial stewardship but failed to show how they contribute to the capital structure of SACCOs. According to a study on determinants of non-performing loans in commercial banks in Eldoret, Kenya [11], it was established that poor management of business, delays in approval, project under-financing and lending not based on security, among others, affected growth of wealth. The study recommended that there was need for information system implementation, segmentation of non-performing loans and reassignment of loans to respective risk departments and quality appraisal of applicants. The main concern of the study was loan delinquency.

7. Research Methodology

Research methodology entails the entire process that should be followed to come up with findings pertinent to the study objectives. The research design employed in this study was descriptive survey research. Descriptive survey also enabled the researcher to relate the research problem to the missing gaps of other research works which had been covered prior

to this study and also show what the other researchers overlooked possibly due to time differences or economics and social factors [9]. The target population constituted the 296 management staff of SACCOs in Nakuru County. It is asserted [10] that, a good sample ought to be a representative of the study populations. The study employed the Nassiuma's formula to derive the sample from the target population. A sample of 75 respondents was drawn from the target population using simple random method. Therefore, every member of the target population had an equal chance of being selected to participate in the study.

The researcher employed a set of structured questionnaires to collect data from the sampled respondents. In tandem with earlier assertions [12], the questionnaire was chosen as the instrument of collecting data because it is the most appropriate in social surveys involving many respondents. The study employed the Cronbach alpha (α) to test the reliability of the questionnaire. The validity of the questionnaires was also sought. For an instrument to be valid, it must first be reliable. In this study the researcher sought to determine the content validity of the questionnaire that was to be used to collect data. This was achieved by seeking expert advice of the University supervisor on both the structure and content of the instrument.

7.1 Data Processing and Analysis

The collected questionnaires were thoroughly looked into to ensure that they were adequately and appropriately filled. The data was then edited and coded into the SPSS (Statistical Packages for Social Sciences) software ready for analysis. Both descriptive and inferential data analyses were carried out. The descriptive analysis constituted frequencies, percentages, means, and standard deviations while inferential analysis was in form of Pearson's correlation coefficient. The findings were presented in form of frequency tables, and also in form of descriptive and inferential statistical tables.

7.2 Research Findings

A total of 75 structured questionnaires were issued to the sampled respondents. Out of these, 63 were sufficiently and appropriately filled, and returned to the researcher. This represented 84 per cent response rate.

7.2.1 Descriptive Findings for Profitability

Table 1 outlines the statistical results of the responses obtained regarding profitability of SACCOs

Table 1: Descriptive Statistics for Profitability

	Min	Max	\bar{X}	s
High profits would encourage a firm to finance itself from those profits	2	5	4.46	.867
Liquidity is very crucial to profitability of a firm	3	5	4.41	.638
Larger firms are more likely to leverage their market power, hence are more profitable	2	5	4.00	.741
Firms with growth opportunities are able to generate profits from their investments	1	5	3.84	1.035

There is a negative r/p between leverage and past profitability	2	5	3.54	1.029
Financial risk is negatively related to profitability	1	5	3.19	1.060

It was noted that, respondents were of the view that high profits would encourage a SACCO to finance itself from those profits; liquidity is very crucial to profitability of a SACCO; larger SACCOs are more likely to leverage their market power, hence are more profitable; firms with growth opportunities are able to generate profits from their investments; and also that, there is a negative relationship between leverage and past profitability. The aforementioned propositions returned means tending towards 4.00 (agree). Yet, the respondents were found to be unsure ($\bar{X} \approx 3.00$; $s > 1.000$) if or not financial risk is negatively related to profitability.

7.2.2 Descriptive Findings for Capital Structure

The opinions regarding how profitability determines capital structure were sought from the sampled respondents drawn from SACCOs in Nakuru County. The data collected regarding the same was descriptively analyzed and the findings are as illustrated in Table 2

Table 2: Descriptive Statistics for Capital Structure

	Min	Max	\bar{X}	s
Profitability affects capital structure	4	5	4.62	.498

The findings indicated that, respondents strongly agreed ($\bar{X} \approx 5.00$) that, profitability affects capital structure.

7.2.3 Inferential Findings for Profitability vis-à-vis Capital Structure

The study further assessed how profitability of SACCOs in Nakuru County influences the capital structure of those organizations. The results of the pertinent findings are as shown in Table 3.

Table 3: Correlation between Profitability and Capital Structure

		Capital Structure
Profitability	Pearson Correlation	.758**
	Sig. (2-tailed)	.000
	n	63

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

The findings indicated that there exists a strong and positive correlation between profitability of SACCOs and capital structure ($r = 0.758$; $p < 0.01$). The relationship is also statistically significant. Therefore, the second hypothesis which stated that, profitability does not significantly influence capital structures in SACCOs in Nakuru County was rejected. Interpretatively, when a given SACCO has increased profitability, the better its capital structure is likely to be, and the reverse is true. In other words, profitability could be argued to be a major determinant of capital structure of SACCOs in Nakuru County.

8. Summary, Conclusions and Recommendations

This section summarizes the major study findings before drawing conclusions in tandem with the research objectives. The inferences enable the researcher to suggest pertinent recommendations.

8.1 Summary

Respondents were found to opine that, high profits would encourage a SACCO to finance itself from those profits; liquidity is very crucial to profitability of a SACCO; larger SACCOs are more likely to leverage their market power, and as such are more profitable; firms with growth opportunities are able to generate profits from their investments; and also that, there is a negative relationship between leverage and past profitability. It was further established that, there exists a strong and positive correlation between profitability of SACCOs and capital structure. As such, profitability was viewed as a major determinant of capital structure of SACCOs in Nakuru County.

8.2 Conclusions

The study findings led to the conclusion that, high profits would encourage a SACCO to finance itself from those profits and also larger SACCOs are more likely to leverage their market power, and as such are more profitable. Profitability was concluded to strongly and positively affect capital structure of SACCOs. Conclusively, profitability is a major determinant of SACCOs' capital structure.

8.3 Recommendations

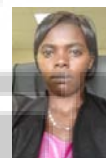
It is recommended that, SACCOs should ensure that they enhance their profitability so that they may strike a balance between retained earnings and debt when financing their operations.

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