

## A Principal Component Analysis of Capital Structure and the Growth of Saccos in Lusaka Province

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### Abstract

*This study attempts to standardize Savings and Credit Cooperative Organization (SACCO) endogenous growth measures that include profit, membership, share capital, dividends, savings, employee competence, and the number of employees - by performing principal component analysis on 42 SACCOs drawn from Lusaka Province of Zambia. Using Statistical Package for the Social Sciences (SPSS) version 26.0, panel data were collected and analysed. Qualitative textual data was analysed manually using hierarchical coding frames. Quantitative data was used to estimate through multivariate analysis the impact of capital structure on SACCO growth, while random effect regression was utilized to estimate the actual effect of the variables on the growth. The research used structured interviews, literature reviews, and questionnaire surveys. Data was generated by pooling a panel dataset of 42 SACCOs over a five-year timespan from 2017 to 2021. The results of the study established that for every 1percent increase in savings, SACCOs grew by 0.17/100 units, while a 1percent increase in share capital led to a growth of 0.09/100 units – while every 1percent increase in retained earnings, SACCOs reduced by 0.00/100 units. Suffice it to mention that the relationship was statistically significant ( $p$ -value  $<0.05$ ).*

**Key Words:** Capital Structure, SACCO Growth, Principal Component Analysis.

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### 1. Introduction

In this era of the fourth industrial revolution, countries of the world aim to among other things achieve growth of population's living standards [1]. Consequently, the overarching goal of the Zambian government is to generate higher, better quality, and more inclusive and sustainable growth. A specific objective is to reach middle-income status by 2030[2]. To achieve these goals, the Zambian government is seeking to create a greater role for the private sector in driving the economy and financing growth. One of the key private sector channels through which economic growth can be achieved is Savings and Credit Co-operative Organizations (SACCOs). The extraordinary power of SACCOs – democratically owned and controlled enterprises, serving their members' needs, rooted in their communities is again proving popular, as this form of firms demonstrate themselves to be 21<sup>st</sup> century businesses [3]. In the 21<sup>st</sup> century, countries are required to learn from other countries in the period of the digital economy if they have to achieve growth and development in this post-industrial economy era [4]. Since 2013, the outcry of SACCOs globally as posited by the World Organization Credit Cooperative Unions (WOCCU) was for assistance to achieve growth. Consequently, WOCCU launched Vision 2020, whose objectives were among others, to reach 260 million members globally

[5]. Country SACCOs took up the challenge of growth and applied their resources and talent to achieve this goal. At the close of 2021 [6], a total of 87,914 SACCOs globally had achieved a combined membership of 394 million spread across 118 countries, with total assets over USD3.5trillion and a penetration of 12.7 percent compared to 89,026 SACCOs, with 260 million members drawn from 117 countries, a total assets base of USD 2.1 trillion and a penetration rate of 9.1 percent in 2017 [7]. Notwithstanding this feat, WOCCU argues that growth was not even across all the SACCOs or countries. The SACCOs that grew were those that leveraged on their capital structures – among other key factors.

According to the Ministry of Finance (2020), Zambia had six SACCOs at independence in 1964 – rapidly increasing to 500 by 1976, which resulted in the creation of the Credit Union Savings Association (CUSA) in 1977 as an engine for developing the SACCO sector in Zambia. CUSA grew into a formidable entity, with SACCOs increasing to over 1,000. Regrettably, CUSA collapsed in 1992 after involving itself in agricultural credit which failed due to severe droughts and the Zambian government's subsequent declaration of amnesties to the borrowers, leading to CUSA and its members' fund being lost. Following this, most SACCOs in Zambia collapsed[9].Moreover, the collapse of CUSA in 1992 left a dent in this subsector in Zambia. However, the 1990s saw the re-emergence of the SACCO sector. The Ministry of Finance (2020) states that the country's SACCOs register had 4,770 registered SACCOs out of which 1,197 were active SACCOs as of 2017. The total membership stood at 1.5million distributed across Zambia, owning assets worth USD25.2million[5].Moreover, SACCOs represent 0.3% of Zambia's Gross Development Product (GDP). This is on the lower end compared to countries such as Kenya, the country with the strongest SACCO movement in Africa, where SACCOs account for as much as 45 percentof the country's GDP[10]. A study of SACCOs in Zambia cited lack of access to finance or capital as one of the top three problems impeding the growth of SACCOs[8].The purpose of this study was to analyze the effect of capital structures on the growth of SACCOs in Lusaka Province, using panel data for the period 2017 to 2021, and determinethe magnitude of the variables with the most influence on the growth of SACCOs.

### **1.1 Problem Statement**

Zambia had one of the lowest growth rates of SACCOs in Africa with total assets of US\$25.3million in 2017 compared to Kenya at US\$7.0 billion, Ethiopia at US\$577.3 million, Tanzania at US\$599.5 million, Rwanda at US\$137.2 million, Ghana at US\$187.3 million – among other comparable countries [7]. Whereas the Zambia National Financial Inclusion Strategy 2017 – 2022 recognizes SACCOs as a key financial delivery channel and instituted strategies to grow this sector, not much success has been achieved as evidenced by the dismal contribution of SACCOs to the national GDP at only 0.3% ([11]).Prior studies by[12], [13], [14], [15], and [16]have shown that the lack of growth of SACCOs has threatened their sustainability such that they have not been able to absorb their operational costs. This has led to the losses being absorbed by members' savings and share capital, resulting in impairment.Most studies on capital structureand its impact on SACCO growth or performance, such as [17] and[18] were conducted in Europe; [19] in Tanzania; [20]in Lesotho; [21]in Botswana; while some studies, [22], [23], [24], [25], [26], [27], and [28], have been done in Kenya. Largely missing from these studies and literature is the focus on capital structure on the growth of Zambian SACCOs in general and Lusaka Province in particular.

## **1.2 Capital Structure and Growth of SACCOs**

### **1.2.1 Capital Structure**

Capital structure has its origin in the celebrated paper by Modigliani and Miller (1958), who proved that the choice between debt and equity financing has no material effects on the value of the firm or the cost or availability of capital. They assumed perfect and frictionless capital markets, in which financial innovation

would quickly extinguish any deviation from their predicted equilibrium [29]. According to [30], one of the most important decisions that a firm can make is the financing decision. [31] defines capital structure as the different options used by a firm in financing its assets. [32] concurs that capital structure attempts to explain the mix of securities and financing sources used by corporations to finance real investment. Moreover, [31] posits that capital structure decisions pose a lot of challenges to firms. Determining an appropriate mix of capital structure is one of the most strategic decisions public interest entities are confronted with. A wrong financing decision tends to stall the fortunes of any business. Financing choices can be determined by a combination of many factors that may be related to the characteristics of the firm as well as to their institutional environments. Financing decisions by firms are called capital structure.

### **1.2.2 Determinants of Capital Structure**

[33] argue that a firm's capital structure is not only influenced by firm-specific factors but also by country-specific factors. [33] compare the capital structure of firms from 19 developed countries and 11 developing countries. They find that institutional differences between developed and developing countries explain a large portion of the variation in the use of long-term debt. They also observe that some institutional factors in developing countries influence the leverage of large and small firms differently. Other determinants of capital structure include macroeconomic factors of countries, firm size, industry or sector, and age of the firm [34].

### **1.2.3 Savings and Credit Co-operative Organizations (SACCOs)**

SACCOs were invented in South Germany in 1846 at the time of agricultural crisis and continued heavy drought in Europe, by two community business leaders: Freidrich W. Reifeisen and Herman Schultze-Delitsche, who are considered the founding fathers of the SACCO movement [16]. In Africa, the idea of SACCOs was first described and discussed in 1955 in Jipara, a small town in the upper west town of Ghana, the idea was brought by the Roman Catholic priest, Father John McNulty from Ireland [24]. One of the major cornerstones of SACCOs is that they are user-owned, user-controlled, and user-benefitted organizations [35]. Zambia had six SACCOs at independence in 1964, rapidly increasing to 500 by 1976, which resulted in the creation of the Credit Union Savings Association (CUSA) in 1977 as an apex statutory body for developing the SACCO sector in Zambia. CUSA grew into a formidable entity and mobilized resources that SACCOs accessed to supplement their resource pool, leading to SACCOs increasing to over 1,000 by 1992 [36]. Regrettably, CUSA collapsed in 1992 after involving itself in agricultural credit which failed due to severe droughts and the Government's subsequent declaration of amnesty to the borrowers, leading to CUSA and its members' fund being lost. Following this, most SACCOs in Zambia collapsed. SACCOs became invisible in Zambia and were often dismissed as relics from the past.

The Zambia government repealed the Cooperative Societies Act of 1970 and replaced it with the Cooperative Societies Act number 20 of 1998. The new Act provided for the cooperative movement to take care of its activities under the full responsibility of the cooperators themselves, running cooperatives as business entities. Moreover, the Zambia government formulated a National Cooperative Development Policy aimed at regulating and promoting cooperative development in the context of a socio-economic environment, with an emphasis on cooperatives being operated on sustainable and viable commercial business principles. Due to the revamping of the legal and business environment, CUSA rebranded to the National Association of Savings and Credit Unions (NASCU) in 2012, leading to the emergence of self-sustaining SACCOs [8].

### **1.2.4 Growth of SACCOs**

In Sub-Saharan Africa, the SACCO movement has been growing in popularity and now comprises between 30 to 50 percent of all cooperative enterprises and provides financial services to 8.81 percent of the population, with combined assets of US\$24 billion [37]. For countries such as Kenya, SACCOs contribute about 47 percent

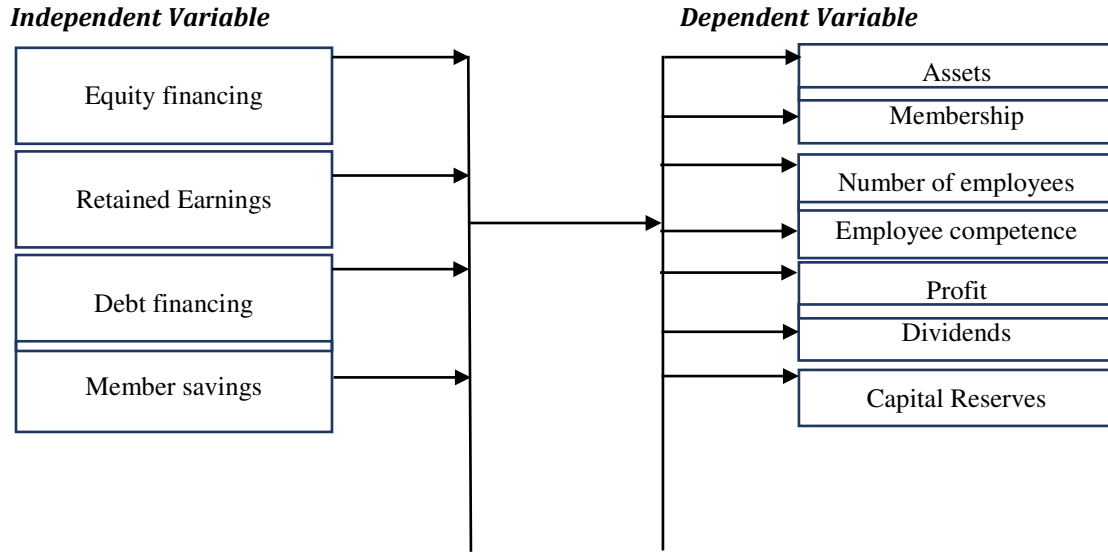
of the GDP and 34 percent of the national savings [38]; empirical evidence indicates further that some 78 percent of the Kenyan people derive their livelihood either directly or indirectly from cooperatives. In the case of Zambia, the Ministry of Commerce, Trade, and Industry (MCTI) register has 4,770 registered SACCOs out of which 1,197 are active. The 1,197 SACCOs tie in with the WOCCU statistics, which show a total membership of 1.5million, and owning assets worth USD25.3million [6]. SACCOs represent a 0.3 percent of Zambia'sGDP [39].

Zambia' Seventh National Development Plan (7NDP) for the period 2017 to 2021 defined cooperative development as one of the important strategies to achieve enhanced job creation in the economy[40]. The plan did not specifically articulate how cooperatives such as SACCOs would be strong contributors to the economic development of the country. Further, even though the 2017 National Financial Sector Development Policy proposed the enacting of relevant legislation to provide for the formalization and supervision of SACCOs – these remained a pipe dream.The 7NDP was succeeded by the Eighth National Development Plan (8NDP) for the period 2021 to 2026, focusing on among others, enterprise development.

Unlike the 7NDP which did not explain how the cooperative sector would be supported, the 8NDP clearly states that it will support the cooperative sector by providing access to finance [41]. However, it is evident from both national development plans that the government has not adequately explained in clear terms how the SACCO sub-sector would be catalyzed to achieve growth. Focus appears to be more on agricultural and production-focused cooperatives, with no mention of the SACCO sub-sector as a potential strong contributor to economic development in the two (2) plans.Further, even though the National Financial Inclusion Strategy for 2017 – 2022articulated action items for strengthening the reach and sustainability of SACCOs, through expanding linkages between SACCOs and formal financial institutions, reviewing feasibility of incorporating SACCOs into financial sector legal and regulatory framework, and promoting sustainable SACCOs through technical assistance and expanded product offerings - largely missing in these intentions were concrete implementation of these plans[8].

### **1.3 Conceptual Framework**

The variables of the study constituted of independent variables, which included equity financing, retained earnings, debt financing, and member savings. The dependent variable included assets, membership, number of employees, employee competence, profits, dividends, and capital reserves. The conceptual framework is illustrated in*Figure 1-1* below.



**Figure 1-1: Conceptual Framework for the study**

## 2. Methodology

This study used a descriptive survey in soliciting information on the effects of capital structure on the growth of SACCOs in Lusaka Provincesince it provides insights into the research problem by describing the variables of interest.

### 2.1 Study Population

The target population of the study comprised 59 registered SACCOs in Lusaka Province between 2017 - 2021. The population size was determined by the number of registered SACCOs in line with the register held at the Registrar of Cooperatives according to the Cooperative Society’s Act number 20 of 1998.

### 2.2 Sampling Technique

Regarding SACCOs as the unit of analysis, no sampling technique was necessary as the study collected data from all elements in the sampling frame which was equivalent to the target population. However, regarding primary data collection, the purposive sampling method was used. The importance of using the non-probabilistic method of sampling emanated from the technical nature of the research study whose questions could only be answered adequately by a few people in the SACCOs establishment.

### 2.3 Sample Size

The studied population of 59 SACCOs represented the whole population of the registered and active SACCOs as of 31 December 2021. Thus, the sampling frame was the whole population of the 59 SACCOs.

### 2.4 Data Collection Procedure

The research questionnaires were sent to all individual SACCOs comprising the 59 registered SACCOs as of 31st December 2021. Data was also collected from secondary sources and specifically from audited accounts from individual SACCOs. The data was vetted, analyzed, and manipulated to make a generalised conclusion about the whole population.

**2.5 Data Analysis**

The data was collected and analyzed using the computer software known as SPSS version 26.0. Collected data were checked for errors of omission or commission before being keyed into the computer system. Multivariate analysis was conducted to establish the correlation between capital structure and growth of SACCOs, Principal Component Analysis was used to reduce the number of variables and extract the most important information from our dataset but retaining as much variance as possible.

**3. Results**

**3.1 Response Rate**

A total of 59 questionnaires were sent out to Senior Managers drawn from 59 SACCOs that were in operation during the period 2017 – 2021 in Lusaka Province, out of which 42 were returned, giving a response rate of 71.2 percent. [42] argue that a 50 percent response rate is adequate, 60 percent good and above 70 percent was very good. Based on this assertion the response rate for this study can be said to be very good at 71.2 percent.

**3.2 Assessment of data for Principal Component Analysis suitability**

Before commencing our data analysis, it is crucial to perform two testing procedures to ascertain whether the data are appropriate for analysis using Principal Component Analysis (PCA). To accomplish this, we utilize the following two tests.

**3.2.1 Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy**

KMO index or measure of sampling adequacy is a numerical value that falls between 0 and 1. If this index is equal to or >0.50, it indicates that the sample is appropriate for performing PCA [43]. A measure of sampling adequacy was conducted on the variables and the results showed an overall result of 0.6716 as shown in Table 3-1, confirming the variables would be subjected to PCA.

**Table 3-1: KMO Measure of Sampling Adequacy for Dependent Variables**

Dependent Variable	Kaiser-Meyer Olkin
Share Capital	0.6070
Capital Reserves	0.4928
Assets	0.7363
Staff strength	0.9448
Dividend	0.7713
Membership	0.6557
Profit	0.7216
Number of Shares	0.6516
Overall	0.6716

**3.2.2 Bartlett's Test of Sphericity**

Bartlett's test of Sphericity (Bartlett 1950) provides a chi-square output that must be significant. It indicates the matrix is not an identity matrix and accordingly it should be significant (p<0.05) for factor analysis to be

suitable[43].The result of the Bartlett test of Sphericity at 0.000, which is less than 5%, indicates that there is a highly significant relationship among the variables in measuring the variables under study.

**3.3 Principal Factor Extraction**

In this study, the Eigenvalue criterion was used to determine the number of initial unrotated factors to be extracted. The factors that were under consideration pertained to the independent variables as shown in Table 3-2 below. The eigenvalue is a ratio between the common variance and the specific variance explained by a specific factor extracted. The eigenvalue of a factor represents the amount of the total variance explained by that factor. A positive eigenvalue is significant, and it indicates that more common variance than unique variance is explained by that factor [43].

**Table 3-2: Principal Factor Extraction of the Independent Variables**

Factor/Description	Eigenvalue	Difference	Proportion	Cumulative
Factor 1/Retained Earning	2.13702	1.80659	0.8717	0.8717
Factor 2/ Equity Financing	0.33043	0.34639	0.1348	1.0065
Factor 3/Member Savings	-0.01596		-0.0065	1.0000

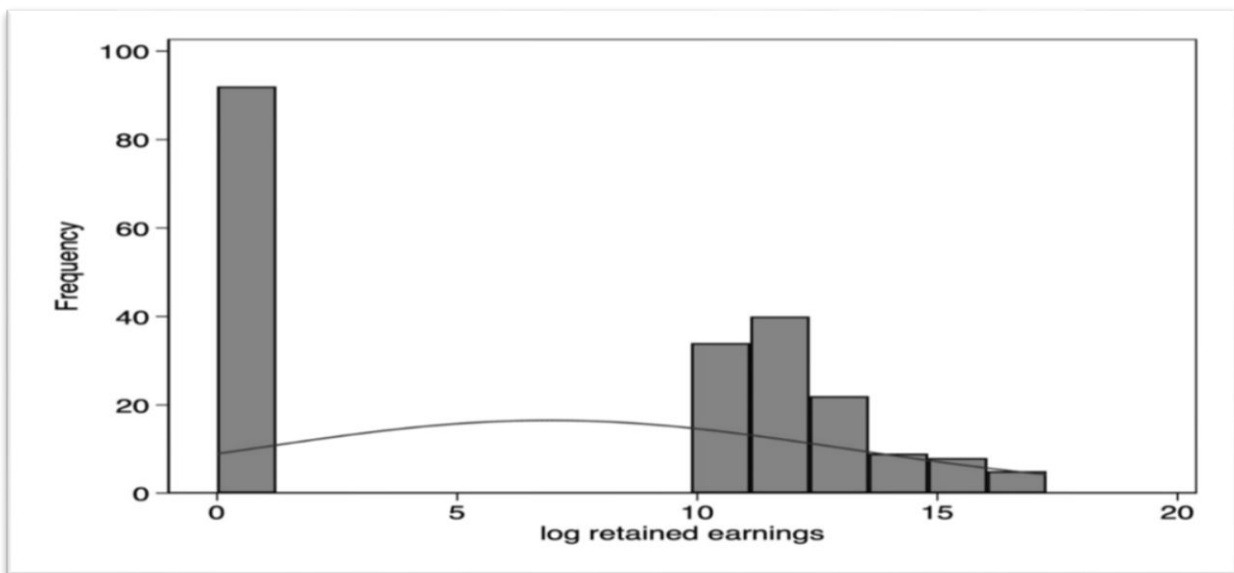
LR test: independent vs. saturated:  $\chi^2(3) = 170.66$  Prob> $\chi^2 = 0.0000$

Since no SACCO utilized Debt Financing in their capital structure, this factor was expunged. Additionally, member savings were also expunged since it gave a negative score.

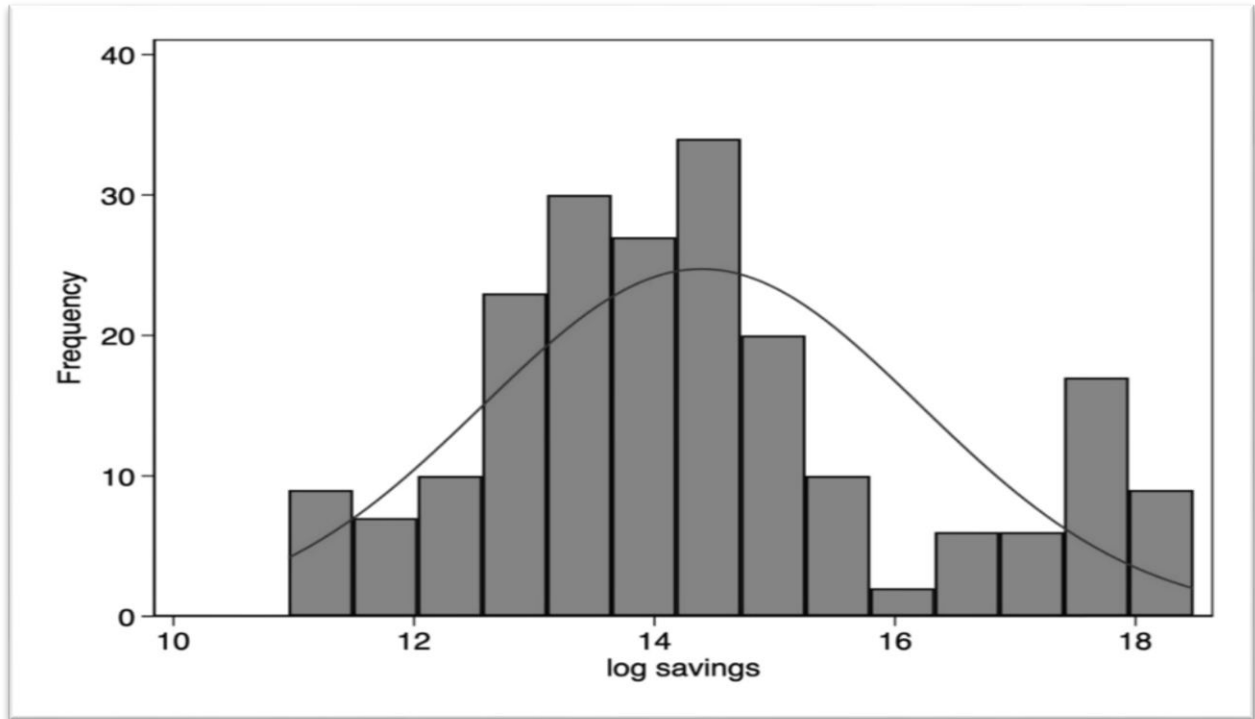
**3.4 Log10 transformation of Independent Variables**

Log10 transformation was undertaken on the independent variables, to make skewed original data more normally distributed to improve its linearity and boost the validity of statistical analyses.This implies that the independent variable has a multiplicative relationship with the dependent variable instead of the usual additive relationship. Hence the need to express the effect of a one-unit change in the x-axis on the y-axis as a percent.

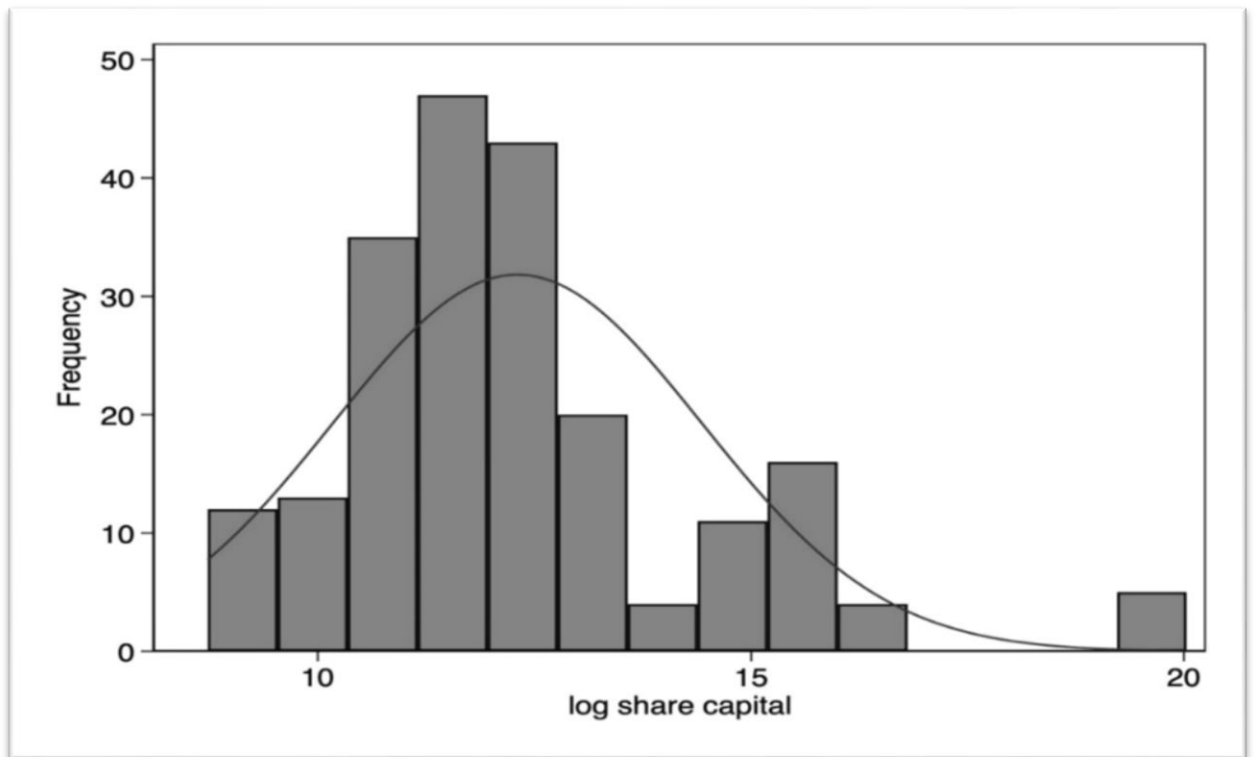
Figures 3-1 to 3-3show the transformed data.



**Figure 3-1: Log10 Transformation of Retained Earnings**



**Figure 3-2: Log10 Transformation of Savings**



**Figure 3-3: Log10 Transformation of Savings**



**3.5 Factor Rotation and Interpretation**

Factors are sets of underlying composite dimensions of all the variables in the data set, while loadings are the correlation coefficients between the variables and the factors. Factor loading assumes values between zero and one, of which loadings below 0.3 are considered unacceptable [42]. This study assumed factor loadings above 0.3 as acceptable, while those less than 0.3 were dropped off.

**Table 3-3: Factor Analysis of Independent Variables**

Factor/Description	Eigenvalue	Difference	Proportion	Cumulative
Factor 1/Retained Earnings	2.13702	1.80659	0.8717	0.8717
Factor 2/Equity Financing	0.33043	0.34639	0.1348	1.0065
Factor 3/Member Savings	-0.01596		-0.0065	1.0000

LR test: independent vs. saturated:  $\chi^2(3) = 170.66$  Prob> $\chi^2 = 0.0000$

**Table 3-4: Factor Analysis of Dependent Variables**

Factor/Description	Eigenvalue	Difference	Proportion	Cumulative
Factor 1/Share Capital	4.59659	2.76499	0.6795	0.6795
Factor 2/Share Reserves	1.83160	1.56884	0.2708	0.9503
Factor 3/Assets	0.26275	0.14576	0.0388	0.9891
Factor 4/Number of employees	0.11699	0.11122	0.0173	1.0064
Factor 5/Dividends	0.00577	0.00901	0.0009	1.0072
Factor 6/Number of members	-0.00325	0.00419	-0.0005	1.0068
Factor 7/Profit	-0.00744	0.03085	-0.0011	1.0057
Factor 8/Number of Shares	-0.03829	.	-0.0057	1.0000

LR test: independent vs. saturated:  $\chi^2(28) = 3162.33$  Prob> $\chi^2 = 0.0000$

Interpretation: For the independent variables, factors one and two were retained, while factor three was expunged – factors one up to five were retained for dependent variables, and factors six up to eight were dropped.

**3.6 Factor Correlation between Capital Structure and Growth of SACCOS**

The three independent factors of savings, retained earnings, and member savings were subjected to further analysis to determine if they had a positive relationship with the growth of SACCOS in Lusaka Province. Results depicted in Tables 3-5, 3-6, and 3-7 below show that each of these components has a positive relationship with the growth of SACCOS.

**Table 3-5: Factor correlation between Member Savings and the SACCO growth model**

Factor	Coefficient	Std Err	Z	P> z	[95percent conf.	Interval]
Savings	-5.30e-09	2.13e-09	-2.48	0.013	-9.48e-09	-1.11e-09
_cons	.052949	.1588191	0.33	0.739	-.2583308	.3642288
/sigma_u	1.017195	.1123259			.8192348	1.26299
/sigma_e	.168181	.			.	.
rho	.9733907	.			.	.

LR test of sigma\_u=0: chibar2(01) = 640.62      Prob >= chibar2 = 0.000

*Interpretation:* For every one percent increase in savings, SACCOs grew by 0.17/100 units and the relationship is statistically significant (p-value <0.05).

**Table 3-6: Factor correlation between Retained Earnings and the SACCO growth model**

Factor	Coefficient	Std Err	z	P> z	[95percent conf.	Interval]
Retained earnings	1.63e-07	1.29e-08	12.63	0.000	1.37e-07	1.88e-07
_cons	-.1465678	.0485079	-3.02	0.003	-.2416415	-.0514941
/sigma_u	.2943673	.			.	.
/sigma_e	.180521	.0126532			.1573492	.2071051
Rho	.7267038	.			.	.

LR test of sigma\_u=0: chibar2(01) = 59.41      Prob >= chibar2 = 0.000

*Interpretation:* For every 1percent increase in Retained Earnings, SACCOs grewby 0.18/100 units, and suffice to mention here that the relationship is statistically significant (p-value <0.05).

**Table 3-7: Relationship between Share Capital and the SACCO growth model**

Factor	Coefficient	Std Err	z	P> z	95percent conf.	Interval]
Share Capital	1.30e-08	1.08e-10	120.46	0.000	1.28e-08	1.32e-08
_cons	-.1684623	.0083505	-20.17	0.000	-.184829	-.1520956
/sigma_u	.0314263	.0103965			.0164323	.0601021
/sigma_e	.0964094	.0052596			.0866328	.1072892
Rho	.0960491	.0610546			.0223911	.2735543

LR test of sigma\_u=0: chibar2(01) = 3.31      Prob >= chibar2 = 0.034

*Interpretation:* For every 1percent increase in Share Capital, the growth index increases by 0.09/100 units, and suffice to mention here that the relationship is statistically significant (p-value <0.05).

**4. Discussion of the Findings**

The objective was to examine the influence of capital structure on the growth of SACCOs in the Lusaka Province of Zambia. A total of four dimensions of capital structure were reviewed, including; retained earnings, equity financing, member savings, and debt financing. Descriptive statistics, principal component analysis, correlation analysis, and multivariate regression analysis were used to answer the research problem. The overall results revealed a statistically significant relationship between elements of capital structure, namely; retained earnings, equity financing, and member savings, to the growth of SACCOs in Lusaka Province of Zambia. The study further revealed that SACCOs in Lusaka Province did not utilize debt financing as one of the key capital structures.

**5. Conclusion and Recommendations**

This study established the key capital structure of retained earnings, member savings, and equity financing as vital for a SACCO to achieve growth, as well as parameters for measuring growth that included assets, profits, membership, number of employees, dividends, employee competency, and capital reserves. It was recommended that SACCOs pay special attention to the right mix of capital structure and strategically utilize all the available options if they were to achieve growth. In line with Pecking Order theory, SACCOs may prioritize internal financing and progressively use externalize financing such as debt financing as an option.

## References

1. Larina, L. B., Postnikova, D. D., Ageeva, O. A. and Haabazoka, L. (2021). *The Scientific and Methodological Approach to Provision and Evaluation of the Digital Economy's Global Competitiveness. The Institutional Foundations of the Digital Economy in the 21st Century*. Berlin, Boston: De Gruyter.
2. International Monetary Fund (2023). *Macro-financial Linkages and Financial Stability in Zambia*. *International Monetary Fund, 2023(257): 15 – 27*. ([www.elibrary.imf.org](http://www.elibrary.imf.org))
3. Smith, S. (2003). *Promoting Cooperatives: A Guide to ILO Recommendation 193*. Manchester: Co-operative College. ([www.ilo.org](http://www.ilo.org))
4. Bogoviz, A.V., Lobova, S. V., Alekseev, N. A. and Haabazoka, L. (2021). *Digital Economy as a Modern Type of Economic System. The Institutional Foundations of the Digital Economy in the 21st Century*. Berlin, Boston: De Gruyter.
5. World Council of Credit Unions (2018). *World Council Annual Report*. Washington DC: WOCCU. ([www.woccu.org](http://www.woccu.org))
6. World Council of Credit Unions (2021). *The Global Network of Credit Unions and Financial Cooperatives Statistical Report*. Washington DC: WOCCU. ([www.woccu.org](http://www.woccu.org))
7. World Council of Credit Unions (2017). *World Council of Credit Unions - 2017 Statistical Report*. Washington DC: WOCCU. ([www.woccu.org](http://www.woccu.org))
8. Ministry of Finance (2020). *State of Financial Cooperatives in Zambia: A viable option for increasing financial inclusion*. Lusaka: Rural Finance Expansion Programme. ([www.rufep.org.zm](http://www.rufep.org.zm))
9. Lolojih, P. K. (2009). *Bearing the brunt of a liberalized economy: A performance review of the cooperative movement in Zambia*. Lusaka: Coop Africa. ([www.ilo.org](http://www.ilo.org))
10. Bwana, K. M. and Mwakujonga, J. (2013). *Issues in SACCOS Development in Kenya and Tanzania: The Historical and Development Perspectives*. *Developing Country Studies, 3 (5): 114 - 121*. ([www.iiste.org](http://www.iiste.org))
11. Ministry of Finance (2017). *National Financial Inclusion Strategy*. Lusaka: Ministry of Finance and National Planning. ([www.mofnp.gov.zm](http://www.mofnp.gov.zm))
12. Henock, M. S. (2019). *Financial sustainability and outreach performance of Saving and Credit Cooperatives: The case of Eastern Ethiopia*. *Asia Pacific Management Review, 24(1): 1–9*. ([www.elsevier.com](http://www.elsevier.com))
13. Dao, B. T. T. and Ta, T. D. N. (2020). *A Meta-Analysis: Capital Structure and Firm Performance*. *Journal of Economics and Development, 22 (1): 111–129*. ([www.emeraldgroupublishing.com](http://www.emeraldgroupublishing.com))
14. Abughniema, M. S., Al Aishatb, M. A. H., Hamdanc, A. and Weshah, S. R. (2020). *Capital Structure, Firm Growth and Firm Performance: Evidence from Jordan ViewProject*. *International Journal for Innovation, Creativity and Change, 10 (12): 655 - 667*. ([www.ijcc.net](http://www.ijcc.net))
15. Hamam, M. D., Layyinaturobaniyah, L. and Herwany, A. (2020). *Capital Structure and Firm's Growth in Relations to Firm Value at Oil and Gas Companies Listed in Indonesia Stock Exchange*. *Journal of Accounting Auditing and Business, 3 (1): 14*. ([www.jurnal.unpad.ac.id](http://www.jurnal.unpad.ac.id))
16. Shilimi, M. C. (2021). *Examining Challenges Leading to Low Integration of Savings and Credit Co-operative Societies (SACCOS) in National Economies: A Study of Zambia*. *Open Journal of Business and Management, 9 (3): 1338–1366*. ([www.scirp.org](http://www.scirp.org))
17. Bazzana, F. and Catturani, I. (2021). *The Capital Structure of Cooperative Firms: An International Comparative Study*. *Eurisce Working Paper Series, 117 (21)*. Trento: Eurisce. ([www.ssn.com](http://www.ssn.com))

18. Pevná, J. (2021). *Capital Structure of COOP group in the Czech Republic*. *Business Trends*, 11 (1): 30–40. ([www.trendypodnikani.cz](http://www.trendypodnikani.cz))
19. Ndiege, O. B. and Kazungu, I. (2020). *Capital Structure and Performance of Savings and Credit Co-operative Societies in Tanzania*. *East African Journal of Social and Applied Sciences*, 1 (2): 38 – 48. ([www.mocu.ac.tz](http://www.mocu.ac.tz))
20. Mmari, G. A. and Thinyane, L. C. (2019). *Analysis of factors influencing Financial Performance of Savings and Credit Co-operative Societies in Lesotho: Evidence from Maseru District*. *International Journal of Financial Research*, 10 (2): 121. ([www.sciedupress.com](http://www.sciedupress.com))
21. Sathyamoorthi, C. R., Mbekomize, C. R., Radikoko, C. J. and Wally-Dima, L. (2016). *An Analysis of the Financial Performance of selected Savings and Credit Co-operative Societies in Botswana*. *International Journal Economics and Finance*, 8 (8): 180. ([www.ccsenet.org](http://www.ccsenet.org))
22. Barus, J. J., Muturi, W., Kibati, P. and Koima, J. (2017). *Effect of Capital Adequacy on the Financial Performance of Savings and Credit Societies in Kenya*. *American Journal of Finance*, 1 (4): 1 - 12. ([www.ajpojournals.org](http://www.ajpojournals.org))
23. Kahuthu, D. G. and Kenyatta, J. (2016). *Impact of Prudential Regulation on Financial Performance of Deposit Taking Savings and Credit Cooperative Societies in Kenya*. [PhD Thesis]. Jomo Kenyatta University of Agriculture and Technology. ([www.ir.jkuat.ac.ke](http://www.ir.jkuat.ac.ke))
24. Olando, O. C., Jagongo, A. and Mbewa, M. (2013). *The Contribution of SACCO Financial Stewardship to Growth of SACCOs in Kenya*. *International Journal of Humanities and Social Science*, 3 (17): 112 – 137. ([www.ijhssnet.com](http://www.ijhssnet.com))
25. Cheruiyot, D. K. and Njogo, M. N. (2021). *Relationship Between Mode of Financing and Financial Performance of Deposit Taking Savings and Credit Cooperative Societies in the Lake Region Counties of Kenya*. *European Journal of Business and Management*, 13 (23): 45 - 57. ([www.iiste.org](http://www.iiste.org))
26. Kimemia, L. W., Namusonge, G. and Sakwa, M. M. (2021). *Effects of Capital Structure on the Financial Performance of Savings and Credit Cooperative Societies in Kenya*. *The International Journal of Business & Management*, 9 (6): 71. ([www.internationaljournalcorner.com](http://www.internationaljournalcorner.com))
27. Mwaniki, S. M. and Ndambiri, J. O. (2018). *Effect of Financial Structure on the Financial Performance of Deposit Taking Savings and Credit Co-operatives in Kenya*. *The Strategic Journal of Business and Change Management*, 5 (2): 788 - 806. ([www.strategicjournals.com](http://www.strategicjournals.com))
28. Lekaaso, G., Cheronno, V. and Rintari, N. (2013). *Effect of Capital Adequacy on the Financial Performance of SACCOs in Samburu County*. *International Journal of Multidisciplinary Research*, 6 (1): 220 - 234. ([www.eprajournals.com](http://www.eprajournals.com))
29. Harris, M. and Raviv, A. (1991). *The Theory of Capital Structure*. *The Journal of Finance*, 46 (1): 297–355. ([www.onlinelibrary.wiley.com](http://www.onlinelibrary.wiley.com))
30. Mursalim, M. Mallisa, and Kusuma, H. (2017). *Capital Structure Determinants and Firm's Performance*. *Polish Journal of Management Studies*, 16 (1): 154–164. ([www.bibliotekanauki.pl](http://www.bibliotekanauki.pl))
31. Modugu, K. P. (2013). *Capital Structure Decision: An Overview*. *Journal of Finance and Bank Management*, 1 (1): 14 – 27. ([www.aripd.org](http://www.aripd.org))
32. [32] Myers, S. C. (2001). *Capital Structure*. *Journal of Economics Perspective*, 15 (2): 81 – 102. ([www.aeaweb.org](http://www.aeaweb.org))
33. [33] De Jong, A., Kabir, R. and Nguyen, T. T. (2007). *Capital Structure around the World: The Roles of Firm and Country-Specific Determinants*. *ERIM Report Series*. ([www.erim.eur.nl](http://www.erim.eur.nl))
34. Serghiescu, L. and Văidean, V. L. (2014). *Determinant Factors of the Capital Structure of a Firm: An Empirical Analysis*. *Procedia Economics and Finance*, 15: 1447–1457. ([www.infona.pl](http://www.infona.pl))
35. Mungania, A. K. and Karanja, J. G. (2015). *Influence of SACCO's Leadership on Implementation of Strategic Plans in SACCO's: A Survey of SACCOs in Meru County*. *International Journal of Economics, Commerce and Management*, 3 (11): .([ijecm.co.uk](http://ijecm.co.uk))

36. Billima-Mulenga, T., Mwenge, F. and Masumbu, G. (2019). *State of Financial Cooperatives in Zambia: A viable option for increasing financial inclusion.* ([www.rufep.org.zm](http://www.rufep.org.zm))
37. World Council of Credit Union (2022). *World Council of Credit Unions, Statistical Report, 2022.* ([www.woccu.org](http://www.woccu.org))
38. Gicheru, E. (2020). *The Role of the co-operative enterprise model in implementing the Sustainable Development Goals (SDGs) in Least Developed Countries (LDCs).* ([www.un.org](http://www.un.org))
39. Ministry of Finance (2017). *National Financial Sector Development Policy 2017.* ([www.zambiamf.opendataforafrica.org](http://www.zambiamf.opendataforafrica.org))
40. Ministry of National Development Planning (2017). *7<sup>th</sup>National Development Plan: 2017 - 2021.* ([www.mofnp.gov.zm](http://www.mofnp.gov.zm))
41. Ministry of Finance and National Planning (2022). *Socio-Economic Transformation for improved Livelihoods.* ([www.mofnp.gov.zm](http://www.mofnp.gov.zm))
42. Mugenda, O. M. and Mugenda, A. G. (2003). *Research Methods: Quantitative and Qualitative Approaches.* African Centre for Technology Studies: Nairobi.
43. Taherdoost, H. Sahibuddin, S. and Jalaliyoon, N. (2022). *Exploratory Factor Analysis: Concepts and Theory. Advances in Applied and Pure Mathematics, 27:375–382.* ([www.papers.ssrn.com](http://www.papers.ssrn.com))