Influence of Board Characteristics on Financial Distress of Deposit Taking SACCOs in Nairobi County, Kenya

Halldess Nguta Munene  
School of Business and Economics, Meru University of science & Technology, Kenya.  
ORCID ID: 0000-0003-4768-2531

James Ndegwa  
School of Business and Economics, Cooperative University of Kenya.  
ORCID ID: 0000-0001-5864-996X

Thomas Senaji  
DVC Academic Affairs, The East African University, Kenya.

Kenneth M. Mugambi  
School of Business and Economics, Kenya Methodist University.

Abstract

The importance of Savings and Credit Cooperatives (SACCOs) cannot be underestimated. Despite their importance, they are faced with numerous challenges among them financial distress which threatens their very existence. The current research sought to establish the role of board characteristics in the financial distress suffered by Deposit Taking SACCOs in Nairobi County. The study is anchored inter alia on Agency Theory. Descriptive research design was adopted while Nairobi County was purposively chosen and a census was carried out on deposit taking SACCOs in the county. Secondary data was collected from SASRA using a data collection sheet and a panel data analysis performed using STATA software. The findings were presented using tables. The study concluded that there was a relationship between board characteristics and financial distress of Deposit Taking SACCOs where board composition, board education and board tenure have statistically significant and negative influence on financial distress. In conclusion SACCOs need to have lean boards, Board composition should also be improved by including more women on boards, there should be more inclusion of members with high and relevant education credentials, and SACCOs should have term limits for their members while an analysis too based on the Altman’s Z score models should be adopted for SACCOs. Another research may be carried out to establish other factors causing financial distress and how to turn around the SACCOs already in distress.

Keywords: Financial Distress; Deposit taking SACCOs; Board Characteristics

JEL Classifications: M4
Introduction

The Kenyan financial sector has been dogged with a number of challenges among them financial distress. Corporate governance has contributed to this problem immensely especially due to the characteristics of the boards that govern these institutions. The Kenyan SACCO subsector is among these financial institutions. Theoretical and empirical literature indicates that financial distress is majorly caused by corporate governance and especially board characteristics in many institutions in the world (Bergman et al., 2012). SACCO’s are very instrumental in developing the economy of any country since they help to mobilize money assets from low income earners, nurture liquidity and uphold proper functioning of the SACCO’s financial system (Kamau, 2016).

Financial distress has been defined to encompass circumstances whereby a business organization experiences impediments in paying off its financial contracts, and in particular, those of its creditors (Kariuki, 2013). It means that there is a tight cash situation (insolvency) and if prolonged may occasion bankruptcy or liquidation. Financial distress may not force a firm into bankruptcy and liquidation. It could just mean that the firm is experiencing an unfavorable and risky position financially (Aasen, 2011). Corporate financial distress can also be taken to mean a situation where a corporate organization experiences extreme lack of liquidity that cannot be rectified without serious restructuring of business operations and capital structure (Jaafar et al., 2018). Gichaiya et al. (2019) describe financial distress (FD) as a global crisis reflected on the existing cases of corporate failure and bankruptcy.

A co-operative has been defined by the International Cooperative Alliance as an independent conglomeration of individuals voluntarily united to fulfill common social, cultural and economic objectives through a jointly-owned and democratically-controlled business. The SACCOs are financial institutions which are part of the cooperative movement of Kenya which can further be divided into two major categories or subdivisions. Financial co-operatives (Savings & Credit Co-operative Societies- SACCOs) and Non-financial cooperatives (includes farm produce and other commodities marketing cooperatives, housing, transport and investment co-operatives).

Corporate governance of which board characteristics is part of has been of great concern hence becoming a frequent feature in various corporate meetings, often featured in the media as well as other stakeholder groups (Subramanian, 2015). The Recent financial crunches, corporate failure, fraudulent financial reporting, as well as failure to report have been a point of discussion in such corporate meetings (Brown & Caylor, 2006). Giant corporations such as Enron, WorldCom, Parmalat, Arthur Andersen, Freddie Mac, HealthSouth and Tyco International have also not been spared. These corporate failures have had hostile outcome on share prices, capital markets and investors’ confidence considering that investors have lost sums of money in relation to their investments. The board also assists members and other stakeholders to instigate measures of ensuring that the concerns of members as well as that of other stakeholders are addressed. This is achieved through separation of ownership and control functions and the resultant agency problem that calls for the board of directors to effectively and efficiently carry out their oversight routines (Elad et al., 2018).

While kivuvo and Olweny (2014) established the presence of financial distress in SACCOs, Ooko et al. (2013) established that SACCOs on average suffer financial distress consistently while Gikuri and Paulo (2016) argue that SACCOs suffer financial distress due to excessive donor dependency while Odhiambo (2011) and Otiene et al. (2015) contend that SACCOs suffer financial distress due to existence of opportunities to mismanage such entities. Mwaura (2005) indicated that some actions of the board of directors may distress the performance of the SACCOs. Kiariitha (2015) have shown high failure rate (51 percent) of SACCOs with three (3) in every seven (7) of the licensed Deposit Taking SACCOs (DTS) having their deposit-taking licenses revoked due to perpetual negligence in addressing non-conformity matters which both exposed members’ interest earned on their deposits as well as financial endurance of the deposit-taking enterprise. The studies established presence of financial distress in SACCOs but data analysis was by ordinary least squares method as opposed to panel regression analysis performed in this study and none of the studies related financial distress of SACCOs to Board Characteristics.

The Financial Services Bill of 2016 aimed at promoting and enhancing the safety and soundness of prudentially-regulated financial institutions, enhancing and supporting the efficiency and integrity of financial markets, promoting public confidence in and encouraging development of the financial sector, and protecting financial clients through promotion of fair handling of financial clients by economic entities (Government of Kenya [GOK], 2011).
Although the study faced a constraint of the historical nature data in financial statements, this was considered a universal limitation of financial data and was addressed by mining seven year period data from financial statements and establishing a trend which can be relied upon to give futuristic advice to SACCOs. Trend analysis is regarded as management information. The SACCOs are very important to any economy and therefore their future should be secured.

This study particularly envisaged examining the relationship between board characteristics and financial distress of deposit taking SACCOs in Nairobi County. To achieve its objective, the study was guided by the following hypothesis: H01; There is no significant relationship between board characteristics and financial distress of Deposit Taking SACCOs in Nairobi County.

The rest of the paper is organized as follows: section two features the relevant literature reviewed by the researchers, section three discusses the research methodology, section four discusses the results and section five presents the conclusion and the recommendations of the research.

Literature Review

This section reviewed relevant theories and also relevant past studies and came with appropriate hypothesis to guide the research. The study was anchored on agency theory with a view that the members are the principal while the board serves as the agent. Agency theory encompasses relationships arising when principals appoint agents to carry out certain services on behalf of the principals, which may involve delegating some decision-making functions. Kahuthu (2016) observed that the basic agency conflict in modern firms emanates from an existing demarcation between ownership and management founded on the assumption that intrinsic conflict exists between the interests of the firm's agent or management and those of the shareholders.

Due to agency problems, corporate governance is anticipated to help in building investor confidence by building the hope of return on investment in the organization. According to corporate governance principals, the board should make investors believe that the managers will not misappropriate or invest their funds in low return ventures. Corporate governance also explains how the principal can monitor the actions of the manager (Nyaga, 2014). This theory therefore addresses a key problem in agency being the expectation of the principal to perform assignments based on decisions that maximize the principal's objective or goals of the principal. It is instrumental in clarifying the financial distress experienced by financial institutions.

The agency theory advocates the existence of progressively large number of outside directors in the boards as this helps in controlling as well as limiting the opportunistic character of managers stemming from their skill, objectivity and independence essential for the control function. It is further argued that the existence of external directors (non-executive) enhances efficiency such that the concern has more disclosures to make. Birjandi et al. (2015) reiterated that majority of external directors in a board enhance the oversight and efficiency of fiscal disclosures and reduced earnings resultant of withholding information. The composition of the board may influence the performance of a SACCO though its relationship is found to be positive. However, it is worth noting that boards comprised of more external directors may assist in mitigation of the agency problem by curtailing on the managers opportunistic behavior (Oguku & Olweny, 2016).

SASRA (2015) reiterates that the board is also responsible for setting the apex tone by requiring management to uphold the standards so set which exhibits the firm’s promise of reliability as well as compliance with legal requirements. The tone establishes the foundation for an organizational culture which is then transmitted to the workforce at every level of the entity. It is also expected to approve the organization’s strategic plans and must frequently assess the execution of such strategies which are intended to generate lasting value whilst evaluating the risk inherent in the strategic plans and finding solutions to them at the same time.

Board characteristics are among various elements which may influence financial performance of corporates consequently leading to financial distress. Research conducted in the area of corporate governance points out to the need for more research to establish how board characteristics influence a firm’s financial performance which may in turn cause firms to be financially distressed (Manzaneque et al., 2016). Among the many board characteristics, this research focuses only on board independence, board size, board diversity, board independence, Education qualifications of board members and board tenure. Tesfamariam (2014) opines that some evidence exist which indicates that financial distress often arises from endogenous risk factors, including maladministration, high leverage, inefficient operating structures, fund management
and resource crunch, poor accounting systems, financial controls and output, low returns and administrative succession.

Board Characteristics are regarded as a blend of features which can be possessed by members of a formal group which may regulate decisions of an entity. These comprises of age, gender, education, experience, diversity among others (Wayne et al., 2010). A broad discussion fronted is as to whether the board of directors should consist of more or less independent directors. There are controversial findings regarding this aspect, however there is a lot of support regarding the fact that board independence could reduce possible financial distress. Another highly debated topic is the board size of firms. Some argue that a larger board size would lessen coordination and communication (Guest, 2009; Coles et al., 2008; Jensen, 2002), whereas others argue that a larger board size would provide the firm with more resources (Cowen & Marcel, 2011; Daily & Dalton, 1994). The researcher therefore came up with the following hypothesis. H0; There is no significant relationship between board characteristics and financial distress of Deposit Taking SACCOs in Nairobi County.

Research Methodology

The study used descriptive longitudinal research design. A longitudinal research is conducted over long time (could be decades). In this form of research, an aspect is observed iteratively. The research entailed collecting and analysing secondary panel data for the 2012 – 2018 time period, on deposit taking SACCOs in Nairobi County and therefore this research design was deemed most apt for the study on sample of 43 Savings and credit cooperatives drawn purposively from a population of 174 deposit taking SACCOs in Nairobi County, Kenya. Appropriate diagnostic tests were carried out and financial distress was established using Altman’s Z score model for non-manufacturing concerns; \( Z^* = 6.56(X_1) + 3.26(X_2) + 6.73(X_3) + 1.05(X_4) \).

Analysis and Results

The researcher undertook a descriptive data analysis, in order to capture a general picture of the raw data. In particular, the following metrics about the data for all variables were computed: mean maximum, minimum, variance, standard deviation, skewness, and kurtosis. The mean indicates the average value of all recorded observations, while the maximum shows the highest recorded observation for each variable. Further, the minimum indicates the least recorded observation for each variable. Variance and standard deviation are measures of dispersion which show the variability of the observations about the mean. Further, skewness indicates whether the observed values were conforming to a symmetrical distribution or were skewed, either positively or negatively. Finally, kurtosis indicates the level of peakedness of the observed values.

| Table 1: Descriptive Statistics | Mean   | Maximum | Minimum | Variance | Standard Deviation | Skewness | Kurtosis |
|---------------------------------|--------|---------|---------|----------|--------------------|----------|----------|
| Financial Distress              | 1.870  | 6.644   | -19.332 | 3.242    | 1.801              | -5.553   | 7.659    |
| Board Size                      | 6.929  | 9.000   | 5.000   | 1.643    | 1.282              | 0.065    | 1.993    |
| Board Composition               | 0.314  | 0.600   | 0.111   | 0.022    | 0.148              | 0.324    | 1.841    |
| Board Independence              | 0.469  | 0.857   | 0.111   | 0.053    | 0.231              | 0.037    | 1.677    |
| Board Level of Education Average| 1.968  | 2.500   | 1.500   | 0.104    | 0.323              | 0.275    | 1.797    |
| Board Tenure                    | 5.570  | 15.783  | 1.009   | 12.013   | 3.466              | 1.011    | 3.360    |

From table 4.1, it is evident that the independent variable (Financial Distress, as measured using the Altman’s Z score) had a mean of 1.87, which is quite low and thereby implies that on average, deposit taking SACCOs operating in Nairobi County is financially distressed. The maximum observation for the Altman’s Z score is 6.644, while the least is -19.332. The dependent variable has a relatively low extent of variation since the variance is 3.242 and the standard deviation is 1.801. Additionally, it can be seen that this variable is negatively skewed (Skewness = -5.553), thereby implying that most of the observations were less than the mean. Further, the kurtosis is quite high (kurtosis = 7.659). This implies that majority of the observed values for Altman’s Z score either coincided with the mean or was very close to the mean.
These results are in agreement with Kivuvo and Oweny (2014), Kariuki (2013) and Wesa and Otinga (2018) who established that by use of Altman's Z score firms in various sectors suffered financial distress. However, Kivuvo and Oweny studied SACCOs before SASRA became the regulator of deposit taking SACCOs while Wesa & Otinga established the financial distress of firms listed in Nairobi securities exchange.

In order to conceptualize the intrinsic relationship between the studies independent, moderating, and intervening variables, correlation analysis was undertaken. Another essence of this procedure was to evaluate the strength of linear interrelationships between these variables, thereby precluding the problem of multicollinearity. Results of correlation analysis are as shown:

Table 2: Correlation Analysis

| Variable                  | Board Size | Board Composition | Board Independence | Board Average Level of Education | Board Tenure |
|---------------------------|------------|-------------------|--------------------|----------------------------------|--------------|
| Board Size                | 1          |                   |                    |                                  |              |
| Board Composition         | 0.0527     | 1                 |                    |                                  |              |
| Board Independence        | 0.0835     | -0.0713           | 1                  |                                  |              |
| Board Average Level of Education | 0.0559 | 0.0512            | -0.0105            | 1                                |              |
| Board Tenure              | 0.038      | 0.1317            | 0.0196             | 0.0527                           | 1            |

As shown in the table, all the indicators did not have any excessive levels of strong correlation. Thus, they can be jointly fitted as regressors in panel models. From the table, it is evident that board size has a positive correlation with other indicators of board characteristics as well as firm revenue and external borrowing. Board composition has a negative linear relationship with board independence and external borrowing, but a positive relationship with other indicators. Board independence has a negative relationship with the Board Average Level of Education but a positive relationship with all other variables.

Diagnostic tests are pre estimation procedures that evaluate whether the assumptions of Ordinary Least Squares (OLS) panel regression analysis are upheld. In particular, a strong linear relationship should not exist between any variables that are fitted jointly as regressors in a model (no multicollinearity), there should be panel level stationarity, error terms should be linearly independent (no autocorrelation), the variance of the error terms should be constant (no heteroscedasticity), and the error terms should be normally distributed (with a mean of zero and a constant variance). These assumptions and the particular tests that were used to test for each of them are discussed in detail as follows:

Table 3: Results for Multicollinearity test

| Variable                  | VIF  | Tolerance |
|---------------------------|------|-----------|
| Board Size                | 1.02 | 0.9848    |
| Board Composition         | 1.03 | 0.9698    |
| Board Independence        | 1.01 | 0.9862    |
| Board Average Level of Education | 1.01 | 0.9917    |
| Board Tenure              | 1.03 | 0.9728    |
| Mean VIF                  | 1.02 |           |

Since all the values of tolerance are greater than the minimum threshold of 0.1, then the data was deemed to pass the assumption of no multicollinearity. Serial Correlation assumption, Wooldridge test for autocorrelation in panel data was used to test whether the study's data conformed to the assumption of no autocorrelation and the results are as shown below:
Table 4: Results for Wooldridge test for Autocorrelation.

| Wooldridge test for autocorrelation in panel data |
|-----------------------------------------------|
| H0: no first-order autocorrelation            |
| F( 1, 41) = 22.585                            |
| Prob> F = 0.0000                              |

The results indicated the presence of autocorrelation thus pointing to the use of a different model other than the Ordinary Least Squares. The Likelihood Ratio test was used to test the data for heteroscedasticity and the following results were obtained.

Table 5: Results for likelihood test heteroscedasticity

| Likelihood-ratio test | LR chi2(41) = 243.56 |
|-----------------------|----------------------|
| (Assumption: nested in hetero) | Prob> chi2 = 0.0000 |

The presence of heteroscedasticity dictated the use of a model other than the OLS model.

Each violation of CLRM assumptions has a remedy. In instances where there is multicollinearity, the variable with the highest Variance Inflation Factor (VIF) should be excluded from further analysis. In cases of autocorrelation, a PraisWinsten Panel Regression model should be fitted while in cases where there is heteroscedasticity, a normal panel model (but with corrected standard errors) should be fitted. The PraisWinsten procedure generates robust results in the presence of autocorrelation, while the corrected standard errors implement a correction mechanism to reverse the effects of heteroscedasticity, thereby ensuring that the estimators so generated are still BLUE (Best, Linear and Unbiased Estimators). Table 6 shows the results of model fitting.

Table 6: Panel Regression Results for Testing Hypothesis One

| Prais-Winsten regression, heteroskedastic panels corrected standard errors |
|-------------------------------------------------|
| Group variable: saccoid                          |
| Time variable: year                              |
| Panels: heteroskedastic (balanced)               |
| Autocorrelation: panel-specific AR(1)            |
| Estimated covariances = 42                       |
| Estimated autocorrelations = 6                   |
| Estimated coefficients = 6                       |
| FD Coef. Het-corrected Std. Err. Z P>|z|        |
| BS 0.031 0.016 2.015 0.041                       |
| BC -2.443 1.111 -2.198 0.028                    |
| BI -0.103 0.047 -2.187 0.020                    |
| BE -0.553 0.069 -7.954 0.012                    |
| BT 0.055 0.008 6.847 0.034                       |
| _cons 5.377 0.385 13.984 0.005                  |

FD = Financial Distress, BS = Board Size, BC = Board Composition, BI = Board Independence, BE = Board Average Level of Education, BT = Board Tenure

The results indicated in the above shows that all indicators of board characteristics have a significant effect on financial distress.
Conclusions

Based on the study findings and discussion of the results, the study concludes that board characteristics have an implication on financial distress of deposit taking SACCOs in Nairobi County.

SACCOs need to have lean boards, since board size was found to have detrimental effects on financial distress. Board composition should also be improved in terms of the number of female members, due to the fact that that this helps in forestalling financial distress. Additionally, there should be more inclusion of independent members on SACCO boards since this indicator has an inverse relationship with financial distress. Further, there should be deliberate inclusion of members with high and relevant education credentials, since this attribute was found to be helpful in curtailing financial distress. Moreover, board tenure was found to have a positive relationship with financial distress. Therefore, SACCO boards should have term limits for their members to allow fresh members periodically, who are likely to inject new ideas into the boards' decision making mechanism.

References

Aasen, M. R. (2011). Applying Altman’s Z-Score to the Financial Crisis: an empirical study of financial distress on Oslo Stock Exchange [Master's thesis, Norwegian School of Economics]. Digital archives. https://openaccess.nhh.no/nhh-xmlui/bitstream/handle/11250/169347/Aasen%202011.pdf?sequence=1

Adams, R. B., & Ferreira, D. (2009). Women in the boardroom and their impact on governance and performance. *Journal of Financial Economics*, 94(2), 291-309. http://hermes-ir.lib.hit-u.ac.jp/rs/bitstream/10086/29282/1/WP2008-7.pdf

Altman, A. (2016). The theory of financial intermediation. *Journal of Banking & Finance*, 21(1), 1461-1485. https://ideas.repec.org/b/erf/erfstu/23.html

Altman, Edward I. (2018), A Fifty-Year Retrospective on Credit Risk Models, the Altman Z-Score Family of Models and their Applications to Financial Markets and Managerial Strategies (December 11, 2018). Journal of Credit Risk, Vol. 14, No. 4, 2018, Available at SSRN: https://ssrn.com/abstract=3299519

Bathula, H. (2008). *Board characteristics and firm performance: Evidence from New Zealand* [Doctoral dissertation, Auckland University of Technology]. Institution repository http://hdl.handle.net/10292/376

Bilimoria, D., & Piderit, S. K. (1994). Board committee membership: Effects of sex-based bias. *Academy of Management Journal*, 37(6), 1453-1477. https://journals.aom.org/doi/abs/10.5465/256795

Birjandi, H., Hakemi, B., & Sadeghi, M. (2015). The study effect agency theory and signaling theory on the level of voluntary disclosure of listed companies in Tehran stock exchange. https://www.semanticscholar.org/paper/The-study-effect-agency-theory-and-signaling-theory-Birjandihakemi/88b3484448957fe293a0f9d1df5eab92d231b0.

BBrown, L. D., & Caylor, M. L. (2006). Corporate governance and firm valuation. *Journal of Accounting and Public Policy*, 25(4), 409-434. http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.180.6337&rep=rep1&type=pdf

Byrd, J., Cooperman, E. S., & Wolfe, G. A. (2010). Director tenure and the compensation of bank CEOs. *Managerial Finance*, 36(2), 86-102. https://ideas.repec.org/a/eme/mfipps/v36y2010i2p86-102.html

Campbell, J., Hilscher, J., & Szilagyi, J. (2005). In search of distress risk. *The Journal of Finance*, 23(6), 41. https://scholar.harvard.edu/files/campbell/files/campbellhilscherszilagyi_jf2008.pdf

Chaganti, R. S., Mahajan, V., & Sharma, S. (1985). Corporate board size, composition and corporate failures in retailing industry. *Journal of Management Studies*, 22(4), 400-417. https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1467-6486.1985.tb00005.x

Chundu, P. P. (2014). Determinants of SACCOs' financial sustainability in Ilala Municipality [Doctoral dissertation, The Open University of Tanzania]. Institution repository. http://repository.out.ac.tz/502/1/P10_-_FINAL_FOR_BLACK_BOOK.pdf

Combs, A., & Glass, B. (2007). *U.S. Patent Application No. 11/703,961*. https://patentimages.storage.googleapis.com/ed/24/81/fe22bd865b69fd/US20070203140A1.pdf

Daily, C. M., & Dalton, D. R. (1994). Bankruptcy and corporate governance: The impact of board composition and structure. *Academy of Management Journal*, 37(6), 1603-1617. https://journals.aom.org/doi/abs/10.5465/2566801

Dalton, D. R., Daily, C. M., Johnson, J. L., & Ellstrand, A. E. (1999). Number of directors and financial
performance: A Meta-analysis. Academy of Management Journal, 42(6), 674-686. https://journals.aom.org/doi/abs/10.5465/256988

Darmadi, S. (2013). Board members’ education and firm performance: evidence from a developing economy. International Journal of Commerce and Management, 23(2), 113-135. https://doi.org/10.1108/10569211311324911

Delves, B. D., & Patrick, B. (2006). Agency Theory Summary. https://docplayer.net/23937778-Agency-theory-summary-by-don-delves-and-brian-patrick.html

Elad, F., Wong, M. N., & Bongbee, N. (2018). The Role of board characteristics in effective corporate governance: The case of Airbus Group. International Journal of Social Sciences Perspectives, 2(1), 87–95. https://econpapers.repec.org/scripts/redir.pl?u=http%3A%2F%2Fonlineacademicpress.com%2Findex.php%2FUSJSP%2FArticle%2Fview%2F42;h=repec:ijossp:2018:p:87-95

Forbes, D. P., & Milliken, F. J. (1999). Cognition and corporate governance: Understanding boards of directors as strategic decision-making groups. Academy of Management Review, 24(3), 489-505. http://assets.csom.umn.edu/assets/48780.pdf

Fuzi, S. F., Halim, S. A., & Julizaera, M. (2016). Board independence and firm performance. Procedia Economics and Finance, 37(1), 460-465. https://www.sciencedirect.com/science/article/pii/S2212567116301526/pdf?md5=9e93be848123c3fb10f3ab82f6e29781&pid=1-s2.0-S2212567116301526-main.pdf&_v=1

Gathigia, W. R. (2016). Influence of corporate governance practice on financial [Master’s Thesis, University of Nairobi]. Digital archives. http://erepository.uonbi.ac.ke/bitstream/handle/11295/100230/Wanderi_Influence%20of%20Corporate%20Governance%20Practices%20on%20Financial%20Performance%20of%20Commercial%20Banks%20in%20Kenya.pdf?sequence=1&isAllowed=y

Gikuri, P. A., & Paulo, A. (2016). SACCOs and members expectations: factors affecting SACCOs capacity to meet members expectations. (Co-operative Research Workshop). Moshi Co-operative University, Tanzania. https://www.researchgate.net/publication/308948542_SACCOs_AND_MEMBERS'EXPECTATIONS_FACTORS_AFFECTING_SACCOs_CAPACITY_TO_MEET_MEMBERS'EXPECTATIONS

Jaafar, M., Muhamat, A., Alwi, S., Karim, N., Rahman, S., & Binti, A. (2018). Determinants of financial distress among the companies practice, Bursa Malaysia. International Journal of Academic Research in Business and Social Sciences, 8(11), 798–809. 10.6007/IJARSS/v8/i11/4956

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: managerial behavior, agency costs and ownership structure. Journal of Financial Economics, 3(4), 305–360. https://doi.org/10.1016/0304-405X(76)90026-X

Kabaiya, F. M. (2012). The relationship between corporate governance practices and financial performance of SACCOs in Muranga’s County [Master Thesis, University of Nairobi]. Digital archives. http://erepository.uonbi.ac.ke/bitstream/handle/11295/16412/Kabaiya%20-%20The%20Relationship%20Between%20Corporate%20Governance%20Practices%20And%20Financial%20Performance%20Of%20SACCOs%20In%20Murang%E2%80%99a%20County?sequence=3&isAllowed=y

Kahathu, D. G. (2016). Impact of prudential regulation on financial performance of deposit taking savings and credit co-operative societies in Kenya [PhD Thesis, Jomo Kenyatta University of Agriculture and Technology]. Institution repository. https://pdfs.semanticscholar.org/f146/834162b261ce716bf28e21324815b30651a7.pdf

Kamau, C. G. (2016). Effect of management practices on creative accounting among corporations listed at the Nairobi securities exchange [PhD Thesis, Jomo Kenyatta University of Agriculture and Technology]. Digital archives http://ir.jkuat.ac.ke/bitstream/handle/123456789/2084/Kamau%20C%20PhD%20B.A.%202016.pdf?sequence=1&isAllowed=y

Kanyi, A. M., Maina, K. E., & Kariuki, S. (2018). Corporate governance and financial performance of savings and credit co-operatives in Embu County, Kenya. International Journal of Finance, Accounting and Economics (IJFAE), 1(2), 1-1. https://www.google.co.ke/url?sa=t&rct=j&q=esrc=s&source=web&cd=&ved=2ahUKEwjyyoatj_LqAhXDBGMBHZOUQkEQFjABAqIAXAB&url=https%3A%2F%2Fzenodo.org%2Frecord%2F1465578%2Ffiles%2FCorporate-Governance-and-Financial-Performance-of-Savings-and-Credit-Co-Operatives-in-Embucounty-Kenya%2525281%252529.pdf&usg=AOvVaw2553x1xDaFelB8cnbZcYzz

Kariuki, H. N. (2013). The effect of financial distress on financial performance of commercial banks in Kenya [Master’s Thesis, University of Nairobi]. Digital archive.
Kariuki, N. W. (2017). Effect of credit risk management practices on financial performance of deposit taking savings and credit cooperatives in Kenya. *Journal of Business and Management*, 19(04), 63–69. https://doi.org/10.9790/487X-1904026369

Kenya Union of Savings Credit Co-operative Unions. (2007, September 18). *Kenyans practice of saving in SACCO’s*. The SACCO Family Union Newspaper.

Muammar Khaddafi & Falahuddin & Mohd. Heikal & Ayu Nandari, 2017. "analysis z-score to predict bankruptcy in banks listed in indonesian stock exchange," *International Journal of Economics and Financial Issues, Econjournals*, vol. 7(3), pages 326-330.

Kirsch, A. (2018). The gender composition of corporate boards: A review and research agenda. *The Leadership Quarterly*, 29(1), 346-364. 10.1016/j.leaqua.2017.06.001.

Kiaritha, H. W. (2015). *Determinants of the financial performance of savings and credit co-operatives in the banking sector in kenya* [PhD Thesis, Jomo Kenyatta University of Technology]. Digital archive. http://ir.jkuat.ac.ke/bitstream/handle/123456789/1598/KIARITHA%2C%20HANNAH%20WAIHERA-%20PHD%20BUSINESS%20ADMINISTRATION%20-2015.pdf?sequence=1&isAllowed=y

Kim, Y., Kang, S., & Park, S. (2019). The effect of management style on financial statement comparability: evidence from Korean business groups. *Asia-Pacific Journal of Accounting & Economics*. 1-18. https://doi.org/10.1080/16081625.2019.1566870

Kinyarwo, D., Meeme, M., Maina, J., & Murithi, M. (2016). Implications of Basel III accord adherence on financial distress status of commercial banks in Kenya. *International Journal of Economics, Commerce and Management*, 4(7), 1-15. http://ijecom.co.ke/wp-content/uploads/2016/07/4744.pdf

Kinyua, A. (2014). Factors affecting the performance of small and medium enterprises in the jua kali sector In Nakuru Town, Kenya. *Journal of Business and Management*, 16(1), 80-93. 10.9790/487X-16148093.

Kiptoo, Q., Wanyoike, D. M., & Genoto, G. (2015). Influence of cross-borrowing on financial performance of savings and credit cooperative societies in Eldama Ravine Sub-County, Kenya. *IOSR Journal of Business and Management*, 17(4), 58-65 http://repository.mut.ac.ke.8080/xmlui/bitstream/handle/123456789/4398/Kiptoo_Influence%20of%20Cross-Borrowing%20on%20Financial%20Performance.pdf?sequence=1&isAllowed=y

Kirimi, P., Simiyu, J., & Murithi, D. (2017). Effect of debt finance on financial performance of savings and credit cooperative societies in Maara Sub-County, Tharaka Nithi County, Kenya. *International Journal of Accounting, Finance and Risk Management*, 2(3), 113-130. 10.11648/ijfrm.20170205.11

Kivuvozi, R. M., & Olweny, T. (2014). Financial performance analysis of Kenya’s SACCO sector using the altman Z score model of corporate Bankruptcy. *International Journal of Science, Business Social Science*, 5(9), 34–52. http://ijbssnet.com/journals/Vol_5_No_9_1_August_2014/4.pdf

Kombo, D. K., & Tromp, D. L. (2006). Proposal and thesis writing: an introduction. Pualines Publications Africa.

Kosikoh, J. C. (2014). Determinants of financial distress in insurance companies in Kenya. [Master's Thesis, Jomo Kenyatta University of Agriculture and Technology]. Institution repository. http://ir.jkuat.ac.ke/bitstream/handle/123456789/5162

Kolok, O., & Mehandi, S. (2016). Measuring financial distress and predicting corporate bankruptcy: an index approach. *Review of Economic and Business Studies*, 6(17), 33-51. https://ideas.repec.org/a/ai/revbus/v2016y2016i17n1a0q.html

Lubawa, G. & Louangrath, P. (2016). “Using Altman Z-Score to Assess the Financial Effects of Multiple Loans on SMEs.” *Inter. J. Res. Methodol. Soc. Sci.*, Vol. 2, No. 1: pp. 63-86. (Jan. – Mar. 2016).

MacKinnon, D. P., Fritz, M. S., Williams, J., & Lockwood, C. M. (2007). Distribution of the product confidence limits for the indirect effect: program PRODCLIN. *Behavior Research Methods*, 39(3), 384-389. https://link.springer.com/content/pdf/10.3758/BF03193007.pdf

Mahadeo, J., Soobaroyen, T., & Oogarah-Hanuman, V. (2011). Board composition and financial performance: uncovering the effects of diversity in an emerging economy. *Journal of Business Ethics*. 105, 375-388. 10.1007/s10551-011-0973-z.

Maina, F. G., & Sakwa, M. M. (2012). *Understanding financial distress among listed firms in nairobi stock exchange: a quantitative approach using the Z-Score multi-discriminant financial analysis model* (JKUAT Annual Scientific Conference Proceedings). Jomo Kenyatta University of Agriculture and
Njogo, N. S. (2011). A survey into the causes of financial distress in co-operative societies in Nairobi [Master's Thesis, University of Nairobi]. Institution repository.

Odlahmbo, J. (2011). The relationship between working capital management and financial performance of deposit taking savings and credit co-operative societies licensed by SACCO Societies regulatory authority in Nairobi county. [Master's Thesis, University of Nairobi].

Nyaga, K. J. (2014). The effect of corporate governance on the financial performance of SACCOs regulated by SASRA [Master’s Thesis, University of Nairobi]. Institution repository.

Oguku, J. O., & Olweny, T. (2016). The effect of corporate governance on financial performance of deposit taking SACCO's in Kiambu County, Kenya. International Journal of Science and Technology and Information Technology, 2(3), 178–183.

Olando, C. O. (2012). An assessment of financial practice as a determinant of growth of savings and credit co-operative societies' wealth in Kenya: the case of Meru County [PhD Thesis, Kenyatta University]. Institution repository.

Ondiek, A. N., Okiego, C., Okwena, D. K., & Ongore, V. O. (2011). Corporate financial distress: an empirical analysis of distress risk. [Doctoral dissertation, University of Nairobi].

Ongore, V. O. (2008). The effects of ownership structure, board effectiveness and managerial discretion on performance of listed companies in Kenya. [Doctoral dissertation, University of Nairobi]. Institutional repository.

Ooko, C.O., & Jagongo, A. (2013). The contribution of SACCO financial stewardship to growth of SACCOs in Kenya. International Journal of Humanities and Social Science, 3(17), 112–137.

Orodo, J. A. (1997). Research and publications in private and public universities in Kenya: an agenda for the 21st century. Bureau of Educational Research.

Otieno, K., Mugo, R., Njeki, D., & Kimathi, A. (2015). Effect of corporate governance on financial performance of SACCOs in Kenya. Research Journal of Finance, 6(2), 48–59.

Outecheva, N. (2007). Corporate financial distress: an empirical analysis of distress risk [Doctoral dissertation, Jomo Kenyatta University of Agriculture and Technology].
https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwiW94z59e_qAhXZ6OAKHRVpBEoQfjAg4QIAxAB&url=http%3A%2F%2Frepository.ounbi.ac.ke%2Fbitstream%2Fhandle%2F11295%2F5380%2F2Bwsipa_Evaluation%2F2520O%252520Applicability%2F2520O%252520Altman%252527s%252520Revised%252520Model%252520In%252520Prediction%252520O%252520Financial%252520Dists%252520In%252520Kenya.pdf%3Fseq=3%26hl=en%26usg=AOvVaw0TNFu-icwchPA0netGrnm

Smith, T. R. (2011). *Agency theory and its consequences: a study of the unintended effect of agency theory on risk and morality* [Master Thesis, Copenhagen Business School]. http://hdl.handle.net/10417/2798

Solomon, G. (2007). An examination of entrepreneurship education in the United States. *Journal of Small Business and Enterprise Development, 14*(2), 168-182. https://doi.org/10.1080/14626000710746637

Spence, M. (2009). Job market signaling. *Quarterly Journal of Economics, 87*(3), 355-374. http://www.jstor.org/stable/1882010.

Sporta, F. (2018). The distressing effect of non-performing assets to quality for commercial banks in Kenya. *International Journal of Innovation and Economic Development, 3*(6), 71-83. https://www.researchgate.net/profile/Cpa_Drfred_Sporta_Phd/publication/324110209_The_Distressing_Effect_of_Non-Performing_Assets_to_Quality_for_Commercial_Banks_in_Kenya.pdf

Stone-Romero, E. F., & Liakhovitski, D. (2002). *Strategies for detecting moderator variables: a review of conceptual and empirical issues*. Elsevier.

Sturm, M., & Nüesch, S. (2019). Diversification and organizational environment: the effect of resource scarcity and complexity on the valuation of multi-segment firms. *Journal of Business Economics, 89*(3), 251-272. https://www.wiwi.uni-muenster.de/ifs/sites/ifs/files/final_manuscript_diversification_and_organizational_environment.pdf

Subramanian, S. P. (2015). *Transforming Business with Program Management: Integrating Strategy, People, Process, Technology, Structure, and Measurement*. CRC Press

Tang, C, & Ye, L. (2015). Diversified Knowledge, R&D Team Centrality and Radical Creativity. *Creativity and Innovation Management, 24*(1), 123-135. https://doi.org/10.1111/caim.12110

Tesfamariam, Y. (2014). The determinants of financial distress in the case of manufacturing share companies in Addis Ababa-Ethiopia [Master’s Thesis, Addis Ababa University Addis Ababa]. http://localhost:80/xmlui/handle/123456789/5744

Tobias, O., & Richard, M. K. (2014). Gender and ethnic diversity on boards and corporate information environment. *Journal of Business Research, 67*(11), 2456-2463. https://www.sciencedirect.com/science/article/pii/S0148296314001027

Vafeas, N. (2003). Length of board tenure and outside director independence. *Journal of Business Finance & Accounting, 30*(7-8), 1043-1064. https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1468-5957.2005.00525

Wanderi, G. W. (2016). The effect of organizational justice on organizational commitment in public secondary schools and commercial banks in Kenya [PhD Thesis, Jomo Kenyatta University of Agriculture and Technology]. [Institution repository. http://ir.jkuat.ac.ke/bitstream/handle/123456789/2458/KARANJA%20GEORGE%20Wanderi%2C%20PhD%2C%2028HRM%29%202016.pdf?sequence=1&isAllowed=y]

Wang, W., & Shiu, W. (2014). Confirmatory multidimensional in unfolding models for graded-response items. *Applied Psychological Measurement, 40*(1), 56–72. https://doi.org/10.1177/0146621615602855

Wanjohi, F. M. (2016). Effect of management efficiency on credit risk in deposit taking SACCO’s in Kenya. *Strategic Journal of Business & Change Management, 3*(2), 20. http://strategicjournals.com/index.php/journal/article/view/276

Waqas, H., & Md-Rus, R. (2018). Predicting financial distress: Applicability of O-score and logit model for Pakistani firms. *Business and Economic Horizons (BEH), 14*(1232-2019-760), 389-401. https://ageonsearch.umn.edu/record/285182/files/Waqa%20.pdf

Ward, A., & McKillop, D. (2005). An investigation into the link between UK credit union characteristics, location and their success. *Annals of Public and Cooperative Economics, 76*(1), 461-489. 10.1111/j.1370-4788.2005.00286.x.

Waweru, N. M., & Kalani, V. M. (2009). Commercial banking crises in Kenya : causes and remedies. *Global
Wayne, V., Dirk, M., Manfred, P. (2010). The A to Z of corporate social responsibility (2nd Revised ed.). John Wiley & Sons.

Webster, J., & Watson, R. (2002). Analyzing the past to prepare for the future: writing a literature review. Management Information System Quarterly, 26(2), 90. 10.2307/4132319.

Wesa, E. W., & Otinga, H. N. (2018). Determinants of financial distress among listed firms at the Nairobi securities exchange, Kenya. Strategic Journal of Business and Change Management, 9492, 1056–1073. http://www.strategicjournals.com/index.php/journal/article/view/933

Williams, K. Y., & O'Reilly III, C. A. (1998). Demography and diversity in organizations: a review of 40 years in research. Research in organizational behavior, 20, 77-140. https://www.researchgate.net/profile/Charles_OReilly/publication/234022034_Demography_and_Diversity_in_Organizations_A_Review_of_40_Years_of_Research/links/55b0f45d08aec0e5f430e49e/De
mography-and-Diversity-in-O rganizations-A-Review-of-40-Years-of-Research.pdf

Williamson, O. E. (1964). Corporate control and business behavior: managerial objectives in a theory of the firm. Prentice-Hall.

World Council of Credit Unions. (2008). 2008 statistical report. https://www.woccu.org/documents/2008_Statistical_Report

Wruck, K. (1990). Financial distress, reorganization, and organizational efficiency. Harvard University press.

Yang, K., & Miller, G. (2008). Handbook of research methods in public administration. Taylor & Francis Group.

Yermack, D. (1996). Higher market valuation of companies with a small board of directors. Journal of financial economics, 40(2), 185-211. https://iri.hse.ru/data/920/479/1225/Sept%202021%20%235%20Cited%20CG%20Higher%20market%20valuat.With%20small%20board%20of%20directors.pdf

Zikmund, W., Babin, J., Carr, C., & Griffin, M. (2010). Business research methods. (8th ed.). Mason, OH: Cengage Learning. https://pdfs.semanticscholar.org/e4a6/312402a230f5f72904b0ac4c53d89852ad11.pdf