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

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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 Otieno 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. Kiaritha (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 will 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 Average Level of Education	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 Olweny (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 Olweny 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

	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	=	0.000

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		Number of obs	= 294
Time variable:	year		Number of groups	= 42
Panels:	heteroskedastic (balanced)		Obs per group: min	= 7
Autocorrelation:	panel-specific AR(1)		avg	= 7
			max	= 7
Estimated covariances =	42		R-squared	= 0.3666
Estimated autocorrelations =	42		Wald chi2(5)	= 87.19
Estimated coefficients =	6		Prob>chi2	= 0.0000
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 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.

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