

Capital Structure and Corporate Financial Distress of Quoted Non-Financial Firms in Nigeria

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ABSTRACT

The research examined the impact of capital structure on corporate financial distress in Nigerian publicly traded companies. It looked precisely at how financial leverage, debt maturity, equity structure, and asset structure effect company financial crisis. The longitudinal or panel research design was used in the study. The sample comprised of 89 non-financial enterprises listed on the Nigerian Exchange Group (NXG) between six financial years (2014-2019). The secondary data was derived from the selected firms' published annual reports and accounts. Descriptive statistics, correlation analyses, and panel regression analysis were used to analyse the data. The research found that leverage and asset structure had a substantial impact on the financial distress of business organisations. The equity structure, which is a mix of external and internal equity, has a negative significant with a negative negligible influence on company financial hardship, while debt maturity has an insignificant effect. The report suggests, among other things, that the management of Nigerian listed corporations guarantee that the quantity of debt financing in the firm's financial mix is at an appropriate level in order to maintain proper asset utilisation. It was also suggested that enterprises in Nigeria should not rely primarily on stock financing, and that management should seek other means of funding, which may not be in the best interests of equity holders. As a result, managers should use the financial debt asset ratio in a manner that increases value for their company's owners, resulting in higher returns to equity holders..

Keywords: Capital Structure, Corporate Financial Distress, Financial Leverage

INTRODUCTION

The capital structure is often defined as the total capital of the company you utilize for your business, which is a combination of debt and equity. Financial leverage, also known as company leverage, is the sum of a firm's short and long term liabilities expressed as a proportion of its capital.

When businesses fail to satisfy their financial responsibilities when they own money, this is known as corporate financial distress. Rajkumar (2014) argued that for a company to achieve the optimum capital structure, company management must guarantee that increases in debt or equity do not degrade the firm's net worth.

However, Abu-Rub (2012) and Bei and Wijewardana (2012), on the other hand, concluded that increasing debt could help a company's financial distress. Studies have indicated that different incidences of failure among world-renowned corporations have taken the world by surprises, according to Ikpesu and Eboiyehi (2018), and this situation is of paramount relevance to stakeholders.

According to Altman (2000), company failure puts numerous employment, personal reputations, organizational reputations, and basic livelihoods at danger.

Recently, a large number of listed companies that have been the driving force of the Nigerian economy have suffered a negative shock that has led some companies to liquidate (Uchenna & Okelue, 2012a).

The main objective of this study is to look at the impact of capital structure on the financial distress of listed non-financial firms in Nigeria coupled with the specific objectives

LITERATURE REVIEW

Corporate Financial Distress and Financial Leverage

In looking at the above dependent and independent variable, the subsisting empirical literature will help give a better clarity of whether there being a positive or negative relationship

Lee and Mauual (2019) posited the influence of capital structure on financial distress for non-financial enterprises listed on the Bursa Malaysian Stock Exchange (KLSE). The Altman Z rating is a financial distress indicator. Quantitative data were combined with secondary data taken from 74 non-financial firms financial statements report in the KLSE between 2013 and 2017. The hypotheses were answered using OLS linear regression. Financial leverage has a negative and significant association with financial distress, according to the study.

Ongera, Muturi, Oluoch, and Karanja (2017) investigate leverage as a potential financial antecedent of financial trouble in Kenyan listed firms. The research was conducted using a descriptive research approach.

Ikpesu and Eboiyehi (2018) study the impact of capital structure on corporate financial distress in Nigerian manufacturing enterprises. Using the panel corrected standard error (PCSE) techniques. The study used annual data from 58 manufacturing enterprises that were listed on the Nigeria stock exchange from 2010 to 2016. The study's finding show that capital structure has detrimental impact on business financial distress.

Abdioglu (2019) looks at the impact of a few firms –level variables on the relationship between financial distress and capital structure decisions. The manufacturing companies that were listed on the Turkish stock exchange between 2007 and 2017 are examined. In the analysis, fixed effect panel regressions are used. According to the data, higher levels of leverage lead to higher levels of financial distress.

Corporate Financial Distress and Debt Maturity

Turaboglu, Erkol, and turaboglu (2017) investigates the link between capital structure decisions and business financial distress. For the years 2010-2015, Turkish 100 companies traded on borsa Istanbul. The findings show that financial distress and debt have a negative and significant association. The study's findings support the trade- off theory, which states that a high debt ratio increases the likelihood of a company's financial problems.

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Corporate Financial Distress and Equity Structure

Sumaryati and Tristiarini (2017) argued that the cost of equity affects financial distress in Indonesia. The study's population is made up of public firms ranked in the corporate forum for governance's corporate

governance perception index in Indonesia between 2011 and 2015. The study used a purposeful sampling strategy to collect sample from 144 companies. To test a hypothesis, the Structural Equation Modeling (SEM) analytic tool was utilized with the Warp PLS version 3.00 programs. The findings revealed that the cost of equity had a substantial impact on financial distress.

Turaboglu, Erkol, and Turaboglu (2017) investigate the association between capital structure decisions and financial distress of 100 Turkish enterprises traded on Bursa Istanbul for the years 2010-2015. Financial distress and equity ratios have a negative and significant link, according to the findings. The Pecking Order Theory of Myers (1984) is supported by the negative link between the external equity ratio (new equity issue) and the financial failure score.

Lee and Maua (2019) investigated the influence of capital structure on financial distress for non-financial enterprises listed on the Bursa Malaysian Stock Exchange (KLSE). The Altman Z rating is a financial distress indicator. Quantitative data were combined with secondary data taken from 74 non-financial firms financial statements reported in the KLSE between 2013 and 2017. External equity has a negative and substantial association with financial distress, but internal equity has a positive and significant relationship with financial distress, according to the research.

Theoretical Review

The underpinning theory of this is the pecking order theory. Myers (1984) established the theory of hierarchical order as an alternative to the capital structure theory. It predicts that organizations will adopt a hierarchical set of finance preferences as a result of asymmetric knowledge and transaction costs, which is why internal financing is favored over external funding. Companies seek debt finance first if they need external funding. Only as a last resort is equity granted. This classification started with a reference to Myers and Majluf's (1984) problem of adverse selection, which occurs when managers have more information than outsiders (investors). According to Myers and Majluf's (1984), if the corporation funds its new initiative by issuing new securities, those securities will lose value. This is because managers are unable to reliably communicate the quality of their existing assets and investment prospects to potential investors. As a result, foreigners may struggle to discriminate between good and terrible works, making it difficult to read the company's choice to issue new titles as a hint of impending negative news and then price new titles in this manner (Myers & Majluf, 1984).

As Myers (1984) pointed out, the theory of compensation is quite similar to the theory of hierarchy if bankruptcy costs and asymmetric knowledge are incorporated. The hierarchical hypothesis denotes a progression of a company's financial options, from internally generated capital to debt, and eventually, external capital (Seifert & Gonenc, 2008). In the case of knowledge asymmetry and lower transaction costs, hierarchical theory predicts that management would choose an equity financing capital structure over debt financing. High-profit companies, according to this hypothesis, will choose to use internal financing, whereas low-profit companies will prefer to use external financing.

Profitability and debt use have a negative association, according to the hypothesis. According to Tang and Jang (2007), a company's use of external financing implies that it is not profitable, and the price of its shares may suffer as a result. This is connected to information asymmetry, in which insiders have more information about the company than management has when external finance signals a concern that could affect the stock price, information asymmetry occurs. As a result, further measures will be made to solve the issues. However, the public may perceive this to mean that the company is not profitable and is merely looking for outside funding. In such instances, rather than issuing new shares to meet the funding requirements, the debt will be used first. This corporate strategy has resulted in large cash reserves and the capacity to remove financial constraints (Seifert & Gonenc, 2008). Furthermore, in the situation of information asymmetry, internal capital is preferred over debt funding since it is easier to acquire and has lower transactional costs (Chen, 2004).

METHODOLOGY

A longitudinal or panel research design was used in the study. The study's population consists of a total of 159 enterprises listed on the Nigerian Exchange Group (NXG) as of December 31, 2019 (NXG Fact Book, 2019). Nevertheless, organisations registered in the banking and insurance industries were omitted from the research. This is due to the fact that these businesses are subject to a stringent regulatory framework governing capital holding and liquidity activities. In this research, descriptive statistics and panel data approaches were applied. The chosen variables were described using descriptive statistics such as mean, median, maximum value, and lowest value. Since the data for this research includes a blend of time series and cross-sectional data, the panel data approach is thought to be more suited. The panel data approach also provides for the control of unobservable heterogeneity through the individual firm effect. The sample size is arrived at by adopting Taro Yamane (1967) number estimation formulae. The formulae state that

$$n = \frac{N}{1+N (e)^2}$$

Where:

n is the sample size;

N is the population of the study; and,

E is the error term.

$114/1+ 114 (0.05)^2 = 88.7$ which is approximately 89 firms.

The justification for the use of 5% is to reduce the sample size to a reasonable and justifiable size since Taro Yamane (1967) allows the use of error terms within the range of 1%-5% as it suits ones study. The study used a stratified random sampling technique since the population is not homogeneous and can be subdivided into groups or strata to obtain a representative sample.

To choose the best model to utilise, the regression model employs the Pooled Ordinary Least

The study used secondary data that will be extracted from audited financial statements and annual reports of individual non-financial firms during the six years (2014 – 2019). The data obtained for all variables in each firm is organized in panels. According to Baltagi, Bratberg, and Holmas (2005) panel data is suitable for longitudinal analysis because it provides both the time and cross-sections dimensions.

Squares (POLS) Model, Fixed Effects Model (FEM), and Random Effects Model (REM). For each model, the standard identification test and Hausmans chi-square statistics will be performed to determine whether fixed effects or random effects are more suitable. In addition, the Breusch-Pagan Lagrange Multiplier Test will be used to choose the best model among the Pooled Ordinary Least Squares and Random Effects Models.

The study develops the following model to investigate the relationship between capital structures and financial distress of publicly traded firms in Nigeria: where financial distress is denoted by FD and is measured using Altman's Z-score Model, and is expressed in functional and econometric form as:

Financial Distress = FD (Capital Structures)

$$FDit = \beta_0 + \beta_1TDit + \beta_2IEit + \beta_3EEit + \beta_4TANGit + \mu_{it} \quad \text{-----} \quad (1)$$

$$FD_{it} = \beta_0 + \beta_1 STD_{it} + \beta_2 LTD_{it} + \beta_3 IE_{it} + \beta_4 EE_{it} + \beta_5 TANG_{it} + \mu_{it} \text{-----} \quad (2)$$

Where:

Financial Distress (FD) = Altman's Z-score Model for the emerging market

$$Z\text{-score} = 3.25 + 6.56X_1 + 3.26X_2 + 6.72X_3 + 1.05X_4$$

Z = Financial distress index (emerging market score),

X₁ = Net working capital/Total assets,

X₂ = Retained earnings/Total assets,

X₃ = Earnings before Interest and Taxes/Total Assets,

X₄ = Book value of equity/Book value of total liabilities

Zone Discrimination: 1.81 is in a zone" and treated as financially healthy firms. Conversely, companies that score below 1.81 are in a distress zone and treated as financially distressed firms.

β_0 = Constant

β_1 to β_6 Coefficients of the independent variables

TD_{it} = Total debt of company i at time t

STD_{it} = Short-term debt of company i at time t

LTD_{it} = Long-term debt of company i at time t

IE_{it} = Internal equity of company i at time t

EE_{it} = External equity of company i at time t

TANG_{it} = Tangibility of the company i at time t

U_{it} = error term.

Our a priori expectations are as follows: $\beta_1 < 0$, $\beta_2 > 0$, $\beta_3 > 0$, $\beta_4 > 0$, $\beta_5 > 0$, and $\beta_6 < 0$.

ANALYSIS AND RESULTS

Descriptive Statistics

	FD	TD	STD	LTD	EE	IE	AS
Mean	4.526416	0.971453	0.599645	0.704021	0.891234	0.185045	0.441756
Median	5.136167	0.605469	0.396316	0.733565	0.573306	0.087504	0.440110
Maximum	12.81555	36.69421	17.95173	5.655188	179.7787	36.09833	2.333712
Minimum	-21.35099	-1.522823	-1.448089	-0.986037	-96.12912	-53.80577	-2.018775

Std. Dev.	4.339828	2.840146	1.491537	0.512771	10.36588	3.317060	0.316516
Skewness	-1.804904	9.470482	8.918428	4.636280	10.27905	-4.797295	-0.896871
Kurtosis	8.996713	100.9145	90.61989	46.91287	207.3883	182.0378	14.86776
Jarque-Bera	1024.734	208037.4	167237.1	42132.87	882624.7	672399.2	3013.281
Probability	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Observations	502	502	502	502	502	502	502

Source: Authors' compilation.

The time covered by the analysis of a non-financial sample of firms listed on the NXG is shown in the above table, and the average Z-score of the sample data is 4.52, indicating that the majority of the observed companies are in excellent financial health in respect to the Altman. Moreover, the data revealed that debt contributed an average value of 0.971 (97%) to the capital structure of the chosen non-financial enterprises.

This indicates that the firm is more ready to fund its operations with debt despite the higher expenses and risk to the company's reputation, which is particularly true for small and medium-sized businesses. Moreover, it demonstrates that long-term debt contributed more to total debt than short-term debt in the capital structure of the examined non-financial firms, with the average value being 0.704 (70%) and 0.599 (60%). It demonstrates that among the observed non-financial enterprises, long-term debt was chosen above short-term debt for funding their assets. This scenario may be explained by the fact that the longer the loan maturity period, the more money the corporation has to invest. Moreover, the results suggest that the majority of the organisations studied utilised external capital as opposed to internal capital, with 89% and 18%, respectively. It demonstrates that the majority of the chosen firms utilised more equity than new income. The findings also revealed that all of the examined non-financial firms' assets were occupied by relatively non-current assets, resulting in an average tangible value of 44%, which was less than 50%. Nevertheless, the minimal price of -2,018 suggests that certain firms do not have non-current assets in all of their assets, which might signal that the company would be bankrupt or face financial troubles.

Hausman Test

There are two evaluation results in the panel regression model, which are the random result and the fixed result, which will produce different results, as the assumption of each effect is different from each other. Therefore, inappropriate results would lead to higher error terms (Gujarati & Porte, 2009). However, when selecting between the two (2) tables, data models to be used in the two (2) models, the Hausman test was performed for each model.

Hausman Test Results

Hausman Test			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-Section random	1.689161	6	0.4297

It shows that the p-value of the Chi-square statistic is 0.4297 which is greater than a 5% significant level indicated that the study accepted the null hypothesis. Therefore, the random effect model is the appropriate model for estimating the panel equations in model one.

Hausman Test Results

Hausman Test			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-Section random	1.160995	6	0.5596

Furthermore, the Hausman test result stood at a chi-square statistic of 1.1609 and prob. value of 0.559 which is also higher than a 5% significant standing revealing that the study equally accepted the null hypothesis. Thus, a random effect model is also selected for estimating the panel equations in model two.

The Results of the Regression Analyses

Dependent Variable	Equation I	Equation II
	FD	FD
Coefficient		
T-Stats		
(P-Value)		
Intercept	3.977	4.224
	11.54	7.641
	(0.00)	(0.00)
Independence Variables		
TD	-0.124	
	-2.352	
	(0.01)***	
STD		-0.03
		-1.06
		(0.28)
LTD		-0.33
		-0.67
		(0.50)
EE	-0.00	-0.00
	1.695	-0.44
	(0.09)	(0.65)

IE	-0.07	-0.22
	-2.77	-2.34
	(0.00) ***	(0.01) ***
AS	1.39	1.38
	3.39	2.29
	(0.00) ***	(0.02) ***
R-Square	0.82	0.71
Adjust R-Square	0.81	0.70
F-Statistics	8.79	6.93
P-Value	0.00	0.00
DW	1.51	1.52
Hausman Test	0.429	0.559
Significant at 10% (*), 5% (**), 1% (***)		

Source: Authors' compilation

Equation I

The random effect regression which indicated coefficient of determination (R^2) of 0.81 measures the firms financial distress, implying that about 81% of the alteration in the financial distress were accounted for while the remaining 19% were unaccounted for, hence captured by the error term. Consequently, after adjusting the degree of freedom, the adjusted coefficient of determination, (the adjusted R-square (R^2) of 0.81 with financial distress, suggested that over 81% of the variations in the dependent variable were explained while about 19% of the variations were unexplained. The F-stat of 8.79 and the associated prob. value of 0.00 show a significant linear relationship between the dependent variable and the explanatory variables. The explanatory variables were all negative, except the assets structure which was positive. The variables were statistically significant at a 1% significance level, apart from the internal equity structure that was statistically insignificant.

Equation II

The random effect regression which indicated coefficient of determination (R^2) of 0.71 measure firms financial distress, implying that about 71% of the alteration in the financial distress were accounted for by the independent variables while the remaining 29% were unaccounted for, hence captured by the error term. Consequently, after adjusting the degree of freedom, the adjusted coefficient of determination, (the adjusted R-square (R^2) of 0.70 with financial distress, suggested that over 70% of the variations in the dependent variable were explained while about 30% of the variations were unexplained. The F-stat of 6.93 and the associated prob. value of 0.00 show a significant linear relationship between the dependent variable and the explanatory variables. The explanatory variables were all negative, except the assets structure which was positive. The variables were statistically significant at a 1% significance level, apart from debt maturity that comprises of long and short term debt and equity structure of internal equity that was statistically insignificant.

DISCUSSION OF FINDINGS

To begin, leverage was shown to be statistically significant, meaning that leverage has a strong relationship with corporate financial hardship among Nigerian publicly listed businesses. It also indicated a high positive correlation with corporate financial trouble, which is consistent with our assumptions. The results are congruent with the findings of Lucky and Agilebu (2019) and Ikpesu (2019) studies, which showed that leverage had a significant influence on financial hardship in Nigeria. As a result, Andy, Chuck, and Alison (2002) believe that financial leverage allows investors to earn a higher potential return than would otherwise be possible; however, the risk of loss is also higher if the investment loses value and the loan principal and any accumulated interest must still be returned. Kumar (2017), on the other hand, contends that a high finance cost as a consequence of borrowing increases the chance of the firm failing on its commitments.

Second, the statistical significance of debt maturity was reported, suggesting that it had minimal impact on the financial distress of the organisation. Contrary to our expectations, the research indicated that debt maturity had a little influence on financial hardship. The findings of the research refute the trade-off hypothesis, which states that a high debt ratio increases the chance of a company's financial issues. According to Hatem (2017), the longer the debt maturity, the bigger the danger to the company's obligations. This might have an impact on the company's success.

Finally, the explanatory variable of ownership structure (a mix of external and internal equity) was found to be both statistically significant and insignificant, showing that internal equity has a considerable influence on corporate financial distress among Nigerian publicly listed businesses. External causes have little influence on financial difficulty among Nigeria's publicly traded companies. The result also demonstrated a positive influence on corporate financial difficulty, confirming our suspicion. Due to asymmetric information and transaction costs, firms adopt a hierarchical order of financial preferences, with internal funding preferred above external financing, according to the Pecking Order Hypothesis. Successful firms are considered to borrow less since they initially have access to their own funds (Myers, 2003). External equity, according to Lee and Manual (2019), has a negative and significant association with financial hardship, but internal equity has a positive and significant relationship with financial distress.

Ultimately, asset structure has been shown to have a significant influence on firm financial difficulties. The *a priori* expectation is reinforced by its positive coefficient value of 1.38 in the Regression Analysis table above, showing that a unit increase in asset structure may result in a corresponding reduction in corporate financial hardship.

This suggests that asset structure influences corporate financial hardship in Nigerian publicly listed enterprises..

CONCLUSION

Industries constitute the backbone of many economies across the world; financial turmoil resulting from non-financial enterprises capital structure can be massive and catastrophic to the economy as a whole. Financial distress is widespread in Nigeria, and while the majority of businesses are profitable, some are in financial distress. The non-financial industries have a significant impact on the financial sector, and any collapse in the sector would have a significant impact on the country's economy since it has an adverse effect that might lead to the entire economy system failing and financial catastrophe. As a result, bad financial management, adverse economic variables, intense competition, and the capital structure are all blamed for a company's financial distress. The capital structure has a considerable impact on financial distress, according to the study. As a result of the data, the study finds that financial leverage, internal capital, and asset structure have a substantial positive and negative association with financial distress. As a result, increases in

these factors will result in a decrease in the company's financial distress; as a result, the company's financial distress will increase. Furthermore, because external capital has a negative and negligible association with financial distress, reductions in external capital will result in an increase in the company's financial distress. Likewise, the debt maturity shows a negative and insignificant correlation with financial distress. As a result, the longer the debt is maturing, the greater the company's financial issues.

REFERENCES

1. Abdio'lu, N. (2019). The impact of firm specific characteristics on the relation between financial distress and capital structure decisions. *Journal of Business Research-Turk*, 11(2), 1057-1067.
2. Abor, J. (2008). Determinants of the capital structure of Ghanaian firms. *The African Economic Research Consortium*.
3. Abu-Rub, N. (2012). Capital structure and firm performance": Evidence from Palestine. *Journal of Money, Investment and Banking*, 4(23), 109-117.
4. Adeyemi, B. (2012). Bank failure in Nigeria: A consequence of capital inadequacy, lack of transparency and non-performing loans. *Banks and Bank System*, 6(1), 99- 109.
5. Akintoye, I. R. (2016). *Investment decisions in the 21st century*. Unique educational publishers, Lagos. Nigeria
6. Altman, E.I.(1968). Financial ratios, discriminant analysis and the prediction of corporate bankruptcy. *Journal of Finance*, 23 (4), 589-609.
7. Altman. (2000). Predicting financial distress of companies: Revisiting the Z-score and ZETA models. *Stern School of Business, New York University*, 9-12.
8. Andualem, U. (2015). Impact of financial distress on the profitability of selected manufacturing firms of Ethiopia. *Journal of Poverty, Investment and Development*, 16, 8-12.
9. Baltagi, B. H., Bratberg, E., & Holmas, T. H. (2005). A panel data study of physicians labor supply: the case of Norway. *Health Economics*, 14(10), 1035-1045.
10. Bei, Z., & Wijewardana, W. (2012). Financial leverage, firm growth and financial strength in the listed companies in Sri Lanka. *Social and Behavioral Sciences*, 40, 709-715.
11. Benito, A. (2003). The capital structure decisions of firm: Is there a pecking order?. *Banco de Espana, Madrid*. The Banco de Espana working paper series, Retrieved from: www.bde.es/informes/be/docs/dt0310e.pdf
12. Benmelech, E., Bergman, N.K., Enriquez, R.J. (2012). Negotiating with labor under financial distress. *The Review of Corporate Finance Studies*, 1(1), 28-67.
13. Bhunia, A., Khan, I., & Mukhuti, S. (2011). Prediction of financial distress: A case study of Indian companies. *Asian Journal of Business Management*, 3(3), 210-218.
14. Bhunia, A., Khan, S. I. U., & Mukhuti, S. (2011). Prediction of Financial Distress – A Case Study of Indian Companies. *Asian Journal of Business Management*, 3(3), 210–218.
15. Bradley, M., Jarrell, G.A., & Kim, E.(1984). On the existence of an optimal capital structure: Theory and evidence. *The Journal of Finance*, 39(3), 857-878.
16. Chadha, S., & Sharma, A. (2015). Capital structure and firm performance: Empirical evidence from India. *SAGE Journal*, 19(4), 295-302.
17. Chao, R., Lipson, M., & Loutskina, E. (2012). Financial distress and risky innovation. Seminar presentation at University of Michigan brown bag
18. Chen, J. J. (2004). Determinants of capital structure of Chinese-listed companies. *Journal of Business Research*, 57(12), 1341-1351.
19. Collard, J. M. (2010). Managing Turnarounds Requires Clear Thinking, Quick Action, and a Plan. *RMA Journal*(March). Available on <http://www.StrategicMgtPartners.com/rmaphases.pdf>.
20. Delcoure, N. (2007). The determinants of capital structure in transitional economies. *International Review of Economics and Finance*, 16(3), 400-415.

21. El-Sayed E.I. (2009). The impact of capital-structure choice on firm performance: Empirical evidence from Egypt. *The Journal of Risk Finance*, 10(5):477-487.
22. Ezeoha, A. E. (2008). Firm size and corporate financial-leverage choice in a developing economy: Evidence from Nigeria. *The Journal of Risk Finance*, 9(4), 351-364.
23. Frank, M. Z., & Goyal, V. K. (2003). Testing the pecking order theory of capital structure. *Journal of Financial Economics*, 67(2), 217-248.
24. Galloway, G., & Jones, D. (2006). Human capital and M & A. *Board Briefing*, 3(3), 18-21.
25. Gambo, E. J., Ahmad, A., & Musa, A.M. (2016): Capital structure and firm performance in the Nigerian cement industry. *Archives of Business Research*, 4(6), 30-44.
26. Gameel, M., & El-Geziry, K. (2016). Predicting financial distress: Multi scenarios modeling using neural network. *International Journal of Economics and Finance*, 8(11), 159-166.
27. Garlappi, L., & Yan, H. (2011). Financial distress and the cross-section of equity returns. *The Journal of Finance*, 66(3), 789-822.
28. Gujarati, D.N. (2003). *Basic Econometrics*, Fourth Edition: McGraw Hill.
29. Harris, M., & Raviv, A. (1991). The theory of capital Structure, *The Journal of Finance*, 46, 297-355.
30. Hatem, B. S. (2017). Influence of debt maturity on firm performance: An international comparison. *International Journal of Economics and Finance*, 9(5), 106-113.
31. Hovakimian, A., Hovakimian, G., & Tehranian, H. (2004). Determinants of target capital structure: The case of dual debt and equity issues. *Journal of Financial Economics*, 71(3), 517-540.
32. Ijaz, M.S., Hunjra, A.I., Hameed, Z., & Maqbool, A. (2013). Assessing the financial failure using Z-Score and current ratio: A case of sugar sector listed companies of Karachi Stock Exchange. *World Applied Sciences Journal*, 23(6), 863-870.
33. Ikpesu, F. (2019). Firm specific determinants of financial distress: Empirical evidence from Nigeria. *Journal of Accounting and Taxation*, 11(3), 49-56.
34. Ikpesu, F., & Eboiyehi, O.C. (2018). Capital structure and corporate financial distress of manufacturing firms in Nigeria. *Journal of Accounting and Taxation*, 10(7), 78-84.
35. Jahur, S.M., & Quadir, N.M. (2012). Financial distress in small and medium enterprises of Bangladesh: Determinants and remedial measure. *Economia management*, 15(1), 46-61.
36. Kazemian, S., Shauri, N. A., Sanusi, Z. M., Kamaluddin, A., & Shuhidan, S. M. (2017). Monitoring Mechanisms and financial distress of public listed companies in Malaysia. *Journal of International Studies*, 10(1), 92-109.
37. Kihooto, E., Omagwa, J., Wachira, M., & Ronald, E. (2016). Financial distress in commercial and services companies listed at Nairobi securities exchange, Kenya. *European Journal of Business and Management*, 8(27), 86-89.
38. Kodongo, O., Mokoaleli-Mokoteli, T., Maina, L.N. (2015). Capital structure, profitability and firm value: panel evidence of listed firms in Kenya. *African Finance Journal*, 17(1), 1-20.
39. Kristanti, F., Rahayu, S., & Huda, A. (2016). The determinant of financial distress on Indonesian family firm. *Social and Behavioral Sciences*, 219, 440-447.
40. Kumar, H. (2017). Financial distress: Causes and remedies. *Inspira-Journal of Commerce, Economics & Computer Science*, 3(4), 409-412.
41. Kwansa, F., & Cho, M.H. (1995). Bankruptcy cost and capital structure: The significance of indirect cost. *International Journal of Hospitality Management*, 14(3/4), 339-350.
42. Lee, D., & Manual, V. S. (2019). A study on effect of capital structure on the financial distress of non-financial companies listed in Bursa Malaysia Stock Exchange (KLSE). *International Journal of Academic Research in Business and Social Sciences*, 9(6), 428-450.
43. Leonard, M., & Mwasa, I. (2014). Capital structure and financial performance in Kenya: Evidence from Firms listed at the Nairobi securities exchange. *International Journal of Social Sciences and Entrepreneurship*, 1(11), 209-223.
44. Lucky, A. L., & Agilebu, O. M. (2019). Leverage and corporate financial distress in Nigeria: A panel data analysis. *Asian Finance & Banking Review*; 3(2), 26-38.

45. Madrid-Guijarro, A., Garcia-Perez-de-Lema, D., & van Auken, H. (2011). An analysis of nonfinancial factors associated with financial distress. *Entrepreneurship & Regional Development*, 23(3/4), 159-186.
46. Matt, H.E., (2000). Excellence in financial management. Course 1: Evaluating financial performance.
47. Memba, F., & Abuga, N. J. (2013). Causes of financial distress: A survey of firms funded by industrial and commercial development corporation in Kenya. *Interdisciplinary Journal of Contemporary Research in Business*, 4(12), 1171-1185.
48. Memba, F., & Nyanumba, J. (2013). Causes of financial distress: A survey of firms funded by industrial and commercial development corporation in Kenya. *Interdisciplinary Journal of Contemporary Research in Business*, 4(12), 1171-1185.
49. Miller, M. H., & Modigliani, F. (1958). The cost of capital, finance, and the theory of investment. *American Economic Review*, 48(3), 433-443.
50. Muigai, R. G. (2016). Effect of Capital Structure on Financial Distress of Non-Financial Companies Listed in Nairobi Securities Exchange. *Cohred, Finance, JKUAT*
51. Muigai, R. G., & Muriithi, J. G. (2017). The moderating effect of firm size on the relationship between capital structure and financial distress of non-financial companies listed in Kenya. *Journal of Finance and Accounting*, 5(4), 151
52. Myers, S. C. (1977). Determinants of corporate borrowing. *Journal of Financial Economics*, 5(2), 174-175.
53. Myers, S. C. (1984). The Capital Structure Puzzle. *The Journal of Finance*, 39(3), 575-592.
54. Myers, S. C., & Majluf, C. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*, 13(2), 187-221.
55. Ogbulu, O., & Emeni, F. (2012). Capital structure and firm value: Empirical evidence from Nigeria. *International Journal of Business and Social Science*, 3(19), 252-260.
56. Ogundipe, S., Idowu, A., & Ogundipe, L. (2012). Working capital management, firms performance and market valuation in Nigeria. *World Academy of Science, Engineering and Technology*, 61(1), 1196-1200.
57. Ongera, J. B., Muturi, W., Oluoch Oluoch, O., & Karanja, J.N. (2017). Leverage as financial antecedent to financial distress among listed companies at Nairobi securities exchange. *Research Journal of Finance and Accounting*, 8 (6), 95-104.
58. Outecheva, N. (2007). Corporate financial distress: An empirical analysis of distress risk. Doctorate Dissertation of the University of St. Gallen, Graduate School of Business Administration, Economics, and Social Sciences. Dissertation number
59. Oyedokun, G. E., Olatuji, K. A. J., & Sanyaolu, W. A. (2018). Capital structure and firm financial performance. *Accounting & Taxation Review*, 2 (1), 56-71.
60. Pandey, I.M., (2010). Financial management. 10th ed; New Delhi: Vikas publishing House PVT Ltd.
61. Patrick, S. C. (1998). The balanced capital structure. *Journal of Applied Corporate Finance*, 11(1), 66-77.
62. Perinpanatham, R. (2014). Impact of financial leverage on financial performance special reference to John Keels Holdings PLC Sri Lanka.
63. Pindado, J., & De la Torre, C., (2006) the role of financing, investment and dividend decision in explaining corporate ownership structure: Evidence from Spain. *European Financial Management*, 12(5), 661-687.
64. Pratheepkanth, P. (2011). Capital structure and financial performance: Evidence from selected business companies in Colombo stock exchange, Sri Lanka. *Journal of Arts, Science and Commerce*, 2(2), 171-173.
65. Rajkumar, P. (2014). Impact of financial leverage on financial performance: Special reference to John Keells holdings plc in Sri Lanka. *Scientific Research Journal*, 2(2), 15-20.
66. Ray, S. (2011). Assessing corporate financial distress in automobile industry of India : An application of Altman's model. *Research Journal of Finance and Accounting*, 2(3), 155-169.
67. Riahi-Belkaoni, A (1999). Capital structure: Determination, evaluation and accounting, Westport, Quorum books publisher.

68. Ross, S.A., Westerfield, R.W., & Jordan, B.D. (2008). *Fundamentals of Corporate Finance*, New York, McGraw-Hill/Irwin.
69. Rouf, M. A. (2015). Capital structure and firm performance of listed non-financial companies in Bangladesh. *The International Journal of Applied Economics and Finance*, 9(1), 25-32.
70. Salawu, R.O. (2007). The determinants of the capital structure of financial firms in Nigeria: The financial managers perspectives. *Global Journal of Business Research*, 1(1), 60-69.
71. Salawu, R.O. (2009). The effect of capital structure on profitability: An empirical analysis of listed firms in Nigeria. *The International Journal of Business and Finance Research*, 3(2), 121-129.
72. Samanhyia, S., Oware, K. M., & Yaansah, F. A. (2016). Financial distress and bankruptcy prediction: Evidence from Ghana. *Expert Journal of Finance*, 4, 52-65.
73. Sumaryati, A., & Tristiarini, N. (2017). The influence of cost of equity on financial distress and firm value. *Advances in Economics, Business and Management Research (AEBMR)*, 46, 194-197.
74. Tin, P. Q., & Nga, T. T. (2017). Examining the financial distress situation of Vietnamese listed firms using cash flow statements. *South East Asia Journal of Contemporary Business, Economics and Law*, 12(1), 16-31.
75. Torre, E., Pelagatti, M., & Solari, L. (2015). Internal and external equity in compensation system, organisational absenteeism and the role of explained inequalities. *Human Relations*, 68(3), 409-440.
76. Turaboglu, T., Erkol, A., & Topaloglu, E. (2017). Financial distress and capital structure decision: An application on BIST 100 firms. *Business and Economics Research Journal*, 8(2), 247-258.
77. Uchenna, A.W., & Okelue, D.U. (2012a). Detecting early warning in bank distress in Nigeria: A multi discriminant analysis approach. *Research Journal of Finance and Accounting*, 3(6), 35-45.
78. Uchenna, A.W., Okelue, U.D. (2012b). Predicting corporate business failure in the Nigerian manufacturing industry. *European Journal of Business and Management*, 4(10), 86-94.
79. Uremadu, S.O., & Efobi, R.U. (2012). The impact of capital structure and liquidity on corporate returns in Nigeria: Evidence from manufacturing firms. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 2(3), 1-10.
80. Usdin, S. D., & Bloom, N. M. (2012). Identifying signs a company is in financial distress. *The Legal Intelligencer*, 245(80),
81. Velnampy, T. (2013). Corporate governance and firm performance: A study of Sri Lankan manufacturing companies. *Journal of Economics and Sustainable Development*, 4(3), 228-235.
82. Vishnu, S., & Kumar, G.V. (2014). Intellectual capital and performance of pharmaceutical firms in India. *Journal of Intellectual Capital*, 15(1), 83-99.
83. Warner, J. (1977). Bankruptcy cost, absolute priority and the pricing of risk of debt claims. *Journal of Financial Economics*, 4, 239-279.
84. Wesa, E.W., & Otinga, H.N. (2018). Determinants of financial distress among listed firms at the Nairobi securities exchange. *The Strategic Journal of Business and Change Management* 5(4), 1057-1073.
85. Zeitun, R., & Tian, G.G. (2007). Capital structure and corporate performance: Evidence from Jordan. *Australasian Accounting, Business and Finance Journal*, 1(4), 40-61.
86. Zeni, S. B., & Ameer, R. (2010). Turnaround prediction of distressed companies: Evidence from Malaysia. *Journal of Financial Reporting and Accounting*, 8(2), 143-159.
87. Jones, M. J. (2011). *Creative accounting, fraud and international accounting scandals*. John Wiley & Sons, Ltd., England.
88. Okaro, S. C., & Okafor, G. O. (2013). Drivers of audit failure in Nigeria-evidence from Cadbury(Nigeria) PLC. *Research Journal of Finance and Accounting*, 4(6), 14-17.
89. Onwuchekwa, J.C., Erah, D., & Izedonmi, F. (2012). Mandatory Audit Rotation and Audit Independence: Survey of Southern Nigeria. *Research Journal of Finance and Accounting*, 3(7) 70 – 78.