RESEARCH ARTICLE

Effect of bankruptcy costs on value of firms listed in Nairobi securities exchange

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Abstract

This study measured the effect of bankruptcy costs on the value of the firm . Financial statements of listed firms for the period of 10 years 2008- 2017 were used. The study was anchored on the Traditional theory which emphasizes on optimality of a capital structure. This study was guided by positivisim research philosophy due to its power of applting deductive logic in arriving at meanings. Asample of 40 firms which have been consistently quoted during the entire study period of 2008-2017 was used. A data collection sheet was used to extract secondary data from published financial statements. Peer reviews were done to unsure face validity while expert opinion ensured content validity. Data was analyzed using descriptive statistical methods of minimums, maximums, mean, percentages and standard deviation. Further Karl Pearson correlation coefficient and backward regression techniques were adopted in analysing the panel data. The results were presented in the form of summarised tables and graphs. The findings revealed bankruptcy costs and had significant effect on value of the firms listed in Nairobi Securities Exchage. It was recommended that information symmetry could be enhanced through close monitoring of compliance to corporate governance practices particularly on disclosure requirements.

1. Introduction

Rational Financing decisions lead to optimal capital structure which improves the value of the firm in a corporate setting. These decisions must be rational and objective to serve the interest of all stakeholders though maximizing returns and generating wealth. Many a times managers and shareholders have made decisions that end up serving their specific interests but detrimental to other stakeholders like debt holders, creditors, suppliers and even customers. Desai asserts that firms in similar risk class are likely to have high cost of capital when the debt levels are high and firms with high leverage are more risky and are valued lower than those firms with low leverage. [1]

Bankruptcy costs proxy was propelled by Horne who considered bankruptcy costs to involve legal and administration expenses, inefficiencies of management and liquidation of assets at lower values than their actual worth. Meroka agrees with the study by Warner 1977 that bankruptcy costs increases as the firm approaches receivership and the value of the firm decreases gradually. Past studies argue that bankruptcy costs arise from failure in governance structures linking firms and bondholders and these costs increase as a firm approaches closure. This study hold the view that bankruptcy costs are infinite and inherent in all firm stakeholder's actions and particularly management, employees and customers in the firm. Besides, it is difficult to measure the economic value of stakeholder actions at all times but can only be estimated upon occurrence but not prior to occurrence and its negatively correlated to value of the firm. [2]

2.0 Literature Review
2.1 Traditional Approach

The theory was propounded by Ezta and Weston in 1952 and supported by Modigilian-Miller in 1963. The theory provides that there exists an optimal capital structure, thats the level where the value of the firm is maximized while the average cost of capital is minimized. The theory argues that debt and equity combination triggers increase in market value of the firm and decrease in cost of capital up to a certain point, however after that point any additional debt causes a decrease in the market value of the firm and increase in cost of capital. The existence of optimality

differ from firm to firm because each firm has unique considerations in making their funding mix. [3]

The theory presupposes that interest on debt capital remains constant up to a certain level after which it increases and dividend on equity capital does not change or slowly rise up to a certain level but later rise at a higher rate. Further the theory assumes that the weighted average cost of capital declines up to a certain level and remains constant upon attaining that level. Despite these assumptions it is not apparently clear as to what constitute the optimal level. The normal average cost curve is U shaped and the optimum capital structure is at a point where cost of capital is the lowest. Thus the traditional theory portend that the cost of capital depends on the capital structure of the firm and there exists an optimal capital structure. This is the where the marginal cost of debt is equal to the marginal cost of equity at equilibrium point. The theory assumes that the rate of interest on debt remains constant for a certain period beyond which it increases with the increase in leverage. In practice this assumption may hold it the time frame is short but if its long market conditions may change. [4]

Critics of traditional approach argue that Cost of equity does not practically rise unless some conditions arise. When the optimal level has been reached investors control the increasing financial risk thereby adjusting the market price of the shares. The variation in prices of shares means that a firm can have lower cost of capital with initial significant use of leverage. Solomon, opines that cost of equity is saucer-shaped along with the horizontal middle range. He poses that optimum capital structure has a range where the cost of capital is minimized and value of the firm maximized. The theory hold the view that expected rate of return by shareholders does not change or increases gradually for some time until the shareholders perceive a financial risk and this is when the rate increases at a higher rate. This view is not realistic to the current challenges and open opportunities firms face and these expectations are highly subjective. [5]

This theory is relevant to this study by holding the view that optimality is achieved when tax benefits considered one of the returns is maximixed, agency costs and bankruptcy costs forming part of the total costs of the firm are minimized to their lowest point. Traditional theory interrogates the effect of capital structure optimality on value of firm, therefore underpinning objectives two and three on effect of agency costs on value of firm and effect of bankruptcy costs on value of firm respectively. [6]

2.2 Bankruptcy Costs and Firm Value

Francis and Min-Ho carried out a study to estimate the value of indirect costs for restaurants and the relative significance in the firms' financing mix. Further the paper examined the effect of trade off between tax savings and distress costs on financing decisions of firms in the restaurant industry. A sample of 10 restaurants was obtained between 1980 and 1992 financial years. Regression analysis was usedin the analysis of the panel data. The findings revealed that indirect costs of bankruptcy which constitute of increased interest expenses, loss in credit, loss in sales and inefficient operations among others does affect the value of a firm significantly.This in effect confirms that foregone profits substancially cause a decline in value of the firm. Further bankruptcy costs outweigh the size of tax shield especially when a firm is moving close to bankruptcy. [7]

Horne argue that bankruptcy costs involve legal and administration expenses, inefficiencies of management when the company is almost going bankrupt and liquidation of assets at lower values than their actual worth. The value of the firm is negatively affected by bankruptcy costs and those costs are highest in the year the particular firm is put under statutory management. This is the case because at that point employees and suppliers have withdrawn their services. Meloka studied the relationship between bankruptcy costs and value of the firm for banking institutions in Kenya. A sample of 8 banks was used drawn from the list of banks by central Bank of Kenya for banks that failed between 1998 and 2002. Date for operational banks was obtained for the period 1996 to 2002. The study used regression analysis technique to derive the inferences. The results indicated that bankruptcy costs significantly affect the value of the firm and these costs are particularly higher when the bank is under statutory management. Secondly, bankruptcy costs increase as the period of bankruptcy approaches and finally bankruptcy costs increase as failure approaches for larger, medium and smaller banks though at higher level for larger banks compared to smaller banks. In conclusion the study argued that bankruptcy costs directly affect the value of a firm particularly for large banks due to high costs. According to Bishop et. al, 1988, whenever a firm experiences difficulties in paying its creditors, the firm is considered financially distressed. Distress costs can be caused by either a shortfall in cash in relation to the creditor payments which translates to such costs as extremely high borrowing costs to avail cash, loss in asset value whenever assets are sold to the most available market at whatever price and cost of management time diverted from more productive functions. Distress costs can also arise from administration expenses and legal expenses emanating from receivership and recovery of claims by creditors through the court. [8]

Damodaran conducted a study on the cost of distress based on concepts of survival, truncation and valuation. The review considered the underlying assumption of discounted cash flow valuation, the rationale discounted cash flow ignores the possibility of distress and how distress costs can be included in adjusted cash flow modes. He established that value of tax benefits is equivalent to the firm tax rate discounted at the interst rate on debt since this is a reflection of the

level of riskiness that the cash flow is subjected to. Further the paper ascertained that present value of bankruptcy cost is equivalent to the product of probability of bankruptcy and present value of bankruptcy cost The study suggested that distress can be included into value by simulations allowing possibility of liquidation, modifying discounted cash flow techniques through adjusting projected cash inflows and discount rates to incorporate risk premium and using diverse valuations of the firm as a sustainable entity under distress and adjusted present value methods. Dichev 1998 posits that a firm's distress causes would be generated by its size and book to market activities. Past studies indicate that bankruptcy risks as a proxy to financial distress cannot be compensated by higher returns. [9]

Glover sought to estimate firm specific expected default costs using a standard model. He sampled 2505 US firms obtaining their means and medians and standard deviation of the firms' expected default costs. The findings revealed that because of a sample selection bias, firm default costs are reconcilable with low observed leverage ratios for a trade-off theory of leverage and the mean estimated cost of default was 45 % of the value of the firm, however in existing literature pieces this percentage is between 21% - 25% of the firm value. However, despite past pieces of literature on bankruptcy costs. The study concluded that the ex-ante heterogeneity of the firm's expected default costs has significant effect on the levels of leverage, credit spreads as well as default rates. Further those firms with higher likely default costs settle for lower levels of leverage and therefore less likely to default that firms with low costs. This means that firms may look low levered when actually they have high expected default costs thus the selection bias on these firms. [10]

Lilia and Jeane-Pierre carried out a study on the economic and financial determinants of firm bankruptcy as evidenced from the French food industry.A sample of 35000 manufacturing firms per year was obtained from Banque de France balance sheet database covering the period 2001 to 2013. Decsriptive statistical methods of mean, quartiles and mediam were used while probit regression model was also adopted in the analysis of the panel data. The study demostrated the role of economic and financial factors and confirmed that bankruptcy rate was higher in manufacturing firms as compared to the food industry. Further the findings revealed that high cost of debt increases the bakruptcy risk while high productivity reduces bankruptcy. Also small firms are often at a higher risk of bankruptcy as compared to large firms. [11]

Carey and Michael study on the bank as a grim reaper with a focus on debt composition and bankruptcy thresholds offered a model and empirical evidence to indicate that composition of corporate debt highly affects corporate bankruptcy decisions. They argued that private debts have covenants which grant the debt holder the right to push a distressed firm into bankruptcy even though the firm has made all payments.

It was established that low bank loan proportion in total borrowing implies low value of claim by the borrower at the point of bankruptcy thus lowering recovery to debt in particular. [12]

Andualem studied on the impact of financial distress on the leverage of selected manufacturing firms in Ethiopia. Data was extracted from the financial statements of the listed firms for the period 1999 to 2005. Descriptives of minimums, maximums, mean and standard deviation provided an insight on the characteristics of the constructs used. Random effect regression analysis was used to cater for time series and cross sectional effects on the data. The findings affirmed that leverage has a negative relationship on financial distress of the firms. The study recommended that firms should critically consider their optimal debt levels in order to control levels of distress and improve or atleast maintain the value of these firms. [12]

Adetunji, Akinyemi & Rashid carried out a study on financial leverage and firm's value using selected firms in Nigeria. The study used a sample of 5 manufacturing firms which were listed in Nigerian Stock Exchange for the period 2007 to 2012 was used and the data extracted from annual reports of the sampled firms. Ordinary least square method was employed for analysis, t-test was used to test the significance of the parameters, F-test to test the significance of coefficient of determination while Durbin-Watson statistic tested the existence of autocorrelation in the residuals of time series. The results demonstrated that there is a significant relationship between financial leverage and value of the firm since the t test calculated was greater than the tabulated t-test at 5% significance level. In conclusion financial leverage is advisable whenever financing long term projects. [13]

Anna and Nila conducted a study on the influence of cost of equity on financial distress and firm value. The study aim was to determine whether cost of equity can affect the financial distress thus causing reduction in firm value. Data was extracted from public listed companies in Indonesia Stock Exchange comprising of 144 listed firms' financial statements. Descriptives of minimums, maximums, means and standard deviations were used and inferential technique of structured equation modelling was also adopted in analysing the panel data. The findings showed that cost of equity has a significant effect on financial distress and that financial distress does not mediate the relationship between cost of equity and firm value. This implies that if cost of equity is effectively controlled it will not cause financial distress to firms. [14]

Massop did a study on bankruptcy probability and the cost of debt. Data was obtained from a sample period of 8 years from 2010 to 2017. The study used multlinear regression in the analysis alongside fixed and random effect which catered for the cross sectional variations and seasonal changes over the years of study. The findings affirm that an increase in bankruptcy probability translate to an increase in the cost of

debt. Further the results revealed that the influence of bankruptcy probability on cost of debt is exponential.

Yasin, Muhammad and Abdul explored the relationship between financial distress, financial flexibility and firm performance evidenced from Pakistani Stock Exchange. The study sought to enlighten researchers and other interested parties on the effect of financial flexibility on financial strength, distress and performance. Data was obtained from 192 listed non financial firms on the Pakistani Stock Exchange for the period 1992 to 2014. Desriptive statistical techniques of mimimum, maximum, mean and standard deviation were applied to analyse the characteristics of the variables used while correlation analysis tested for multi-collinearity of the independent variables. Fixed effect regression model was applied on unbalanced panel data to determine the effect of financial flexibility on distress levels of these firms. The findings affirmed that firms which are financially flexible have lower chances of facing financial distress and they are more likely to realize higher profits than their counterparts which are relatively inflexible. Their finding supported the pecking order theory among the Pakistani firms. The study concluded that firm finances increases with increase in firm flexibility thus a reduction in financial distress to the firms. [15]

Ikpesu and Eboiyehi carried out a study on capital structure and corporate financial distress of manufacturing firms in Nigeria. They employed panel data for the period 2010 to 2016 and measured distress by use of Altman Z score. The theories of trade off and pecking order were used to conceptualize the study. The results confirmed that capital structure negatively affected corporate financial distress of the firms. Further the study argued that growth of a firm and its size negatively affect its financial distress. The study recommended that managers should exercise caution whenever making financial decisions while governments have an obligation to encourage firms to use internal funds through grants of preferential tax advantages on retained profits to the firms. [16]

Hillary, Nyang'au and Ngacho conducted a study on the effects of financial distress on financial performance of manufacturing firms listed in Nairobi Securities Exchange. Data was obtained from audited and published financial statements of 9 manufacturing firms listed at Nairobi Securities Exchange. Descriptive statistical methods of mimimums, maximums, means and standard deviations were used in the analysis. Further ordinary least squares regression analysis was used to measure the effect of financial distress on financial performance of those firms. The Z score model was also employed to measure the financial health of the firms. The findings revealed that high levels of debt to total assets means higher risk and likelihood of increased distress to the firms. Further the results affirmed non-existence of a relationship between financial distress of a firm and return on assets as a measure of firm firm performance, however there exists one with return on equity and there is indirect impact of financial distress on both return on assets and return on equity.

Ikpesu did a study on firm specific determinants of financial distress with particular evidence from Nigeria. The scholar used panel data derived from audited financial records of manufacturing firms listed in Nigeria Stock Exchange. Financial distress was the endogenous variable and its was measured using Altman Z score while exogenous variables were firm size, liquidity, profitability and leverage. Ordinary least squares regression analysis was applied on the annual time series data for the 18 manufacturing firms. The results revealed that leverage, liquidity, growth of revenue are the main firm determinants of financial distress. The study recommended that management should ensure proper control measures are in place to detect and react to the financial distress signal.

Nicoleta and Mara sought to boost the bankruptcy predictive capability of managers using factor analysis and the models of Altman, Tafler, Springate,Caounan and Holder and Zmijewski. Data was obtained from Amadeus database over te study period of 2006 to 2015. Dymanic panel data estimation model with Generalized Method of Moments was employed in order to regress firm performance of firm risk on annual basis. Tobit models were used to ascetain the effect of performance of bankruptcy risk score. The findings revealed that risk score have a negative influence of firm performance. Also the results affirmed that high performance was associated with high risk scores hence the finance concept that higher risks relates to substantial returns. This high performance mean that there is lower probability of bankruptcy risks. Finally, the scholars emphasized the fact that good corporate governance is a significant determinant of firm performance and lower bankruptcy risk. In conclusion the scholars possed that the models adopted can effectively predict the likelihood of a bankruptcuy situation befalling a firm.

Previous scholars hold the view that bankruptcy costs directly affect the value of the firm. However studies on this area remain scanty and therefore prompting the third proposition that;

Bankruptcy costs have a significant effect on the value of firms listed in NSE....

The foregoing literature further suggests that bankruptcy costs arise due to failure in governance structures between the firms and bondholders and they keep increasing as the firm approaches total failure. If this is true then bankruptcy is a situation which can be avoided by any firm because then the management can remedy the situation by enhancing the governance structures and using the signal on increasing bankruptcy cost. Therefore the scholars argument that bankruptcy costs can be estimated before occurence.

3.0 Research Methodology
3.1 Research Design
A research design is a structure or plan or blue print strategy of investigation adopted to derive answers

to the research questions in a study. Explanatory research design was also used to point out the relationships between the variables used in the study and generate models for these particular relationships.

3.4 Target Population

Oso and Onen, argue that population entail the object of a study comprising of individuals, objects, organizations, events and products. Target population constituted of all the 66 firms listed in Nairobi Securities Exchange on all sectors of the economy.

3.5 Sample and Sampling Techniques

A sample of 40 companies listed in Nairobi Securities Exchange was selected. The criteria was if a company is constantly listed in NSE for the period of study 2008-2017 then it is retained. However if at some point it was delisted or listed later than 2008 then it was eliminated.

3.6 Data Collection Procedures

Denscombe revealed that there exist advantages associated with the use of document review such as their cheap and easy accessibility and permanent availability of data in a form that can easily be cross checked and open to public scrutiny. The published financial statements used to derive secondary data for this study are public documents available for scrutiny.

3.7 Data Analysis and Presentation

Data extracted was processed for analysis by editing, coding, categorizing and recording. Data was analysed using means, percentages, and standard deviation. Kothari opines that regression analysis informs how independent variables cause changes in dependent variables. The following regression model was applied.

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \varepsilon_{it} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (3.1)$$

where β_0 is the constant representing the gradient, β_1, is the coefficient of the respective independent variable, X_1, while ε_i - is the error term, it denote company i in time t

The results were then presented in the form of tables and graphs.

Bankruptcy costs were measured by debt to total assets ratio.

4.0 Results and Discussion
4.1 Descriptive Statistics

The descriptive statistical methods of minimum, maximum, mean and standard deviation were used to undersand the characteristics of the variables. The results are has shown in table 4.1

Debt to total assets ratio returned a minimum of .01 and a maximum of 8.34 showing that listed firms had high debt proportions in their funding mix. Debt asset ratio which is greater than 1 implies that the firm has more debt than its assets, a situation technically considered to be insolvent. A preferred debt to asset

ratio is 0.5, that is, the assets should be twice the value of debt and there any debt asset ratio greater than 0.5 or 1:2 is considered extreme as it may lead to bankruptcy of the firm. On the other hand working capital to total asset ratio returned a minimum of -7.34 and a maximum of 5.93. Working capital provides the means of servicing external borrowing hence the need of maintaining it at sufficient levels. In the event that working capital is negative it means that the firm has more current liabilities that its current assets, a situation considered risky as it may subject the firm to liquidation at any time. The data revealed that 15 firms which have been constantly listed at the NSE had a negative working capital in at least one year of their operation however Eveready East Africa Limited had negative working capital for 9 years (2009-2017). The preferred ratio of current assets to current liabilities is 2:1 to avoid instances of bankruptcy claims.

Standard deviation of working capital to total assets ratio was 0.70037 which was higher than that of debt to total assets ratio (.60882). This imply that the variation in the levels of working capital among firms in different sectors was higher as compared to the variation in debt levels of those firms. This could be due to the unique firm policies parsued by the individual firms or industry guidelines set for various sectors. Skewness value from the table indicate symmtrical disribution of the elements of the population on the two variables.

4.2 Trend Analysis for Bankruptcy Costs

Figure 4.3 demonstrate the trend on bankruptcy costs as an irregular one however the figure maintained an increasing pattern from the year 2010 at an almost regular intervals.

The figure further show that bankruptcy costs substantially dropped in the year 2008 followed by the year 2016. In idea situations bankruptcy costs are expected to decline over time but for the period between 2010 to 2015 these cost costs went higher among firms listed in NSE. Increase in bankruptcy costs during this period may be attributed to the difficulty economic conditions which made it difficult for firms to service loans

4.3 Correlation Analysis

To establish the existence and nature of relationship between bankruptcy costs and value of firms listed in Nairobi Securities Exchange, correlation analysis was employed.

There exists a positive correlation between bankruptcy costs and value of firms listed in NSE (r=.129, p=.010). The results show that there is a statistically significant positive relationship between bankruptcy costs and value of firms. This means that as bankruptcy costs increase the value of firm increases as well and as it decreases value of firm decreases.

The findings concur with Meloka who found a positive correlation between bankruptcy costs and value of firms listed in NSE. It further agrees with the work of

Andualem who affirmed that leverage negatively affects financial distress of the firms which in turn reduces the value of firms listed in stock exchange.

4.4 Regression Analysis

Regression analysis was used to ascertain the effect of bankruptcy costs of value of firms listed in NSE. The results shoew that bankruptcy costs can explain 1.7 % 0f the changes in the value of th firms listed in NSE.

The coefficients table 4.4 shows that if all other external factors are held constant then bankruptcy costs can account for 12.9% of the changes in the value of the firms listed in NSE.

4.5 Hypothesis Testing

Null Hypothesis ; Bankruptcy Costs have no Significant Effect on Value of Firm

The results of the Analysis of Variance (NOVA) table 4.18 indicated that the effect of bankruptcy costs on firm value is statistically significant with p=.000 since p<.05 significance level.

To test the third hypothesis that bankruptcy costs have no significant contribution to the value of firms listed in NSE, the results in ANOVA table 4.18 were used. The results show that F=7.850 and p=.000, implying that the effect of bankruptcy costs on value of firms listed at NSE is statistically significant since F is a substantial figure and p<.05 significance level. The critical F value at df (2, 397) and .05 significance level is 3.0184 implying that the calculated value is higher than the critical value. Therefore the null hypothesis that bankruptcy costs have no significant contribution to value of firms listed in Nairobi Securities Exchange is rejected.

The findings concur with Meloka who studied the relationship between bankruptcy costs and value of the firm for banking institutions in Kenya and found that cost of bankruptcy has a significant effect on the value of the firm and these bankruptcy costs are particularly higher when the bank is under statutory management. Further study argued that bankruptcy costs directly affect the value of a firm particularly for large banks due to high costs. Also, Andualem (2015) studying on the impact of financial distress on the leverage of selected manufacturing firms in Ethiopia, affirmed that leverage has a negative relationship on financial distress of the firms. The study pointed that firms should critically consider their optimal debt levels in order to control levels of distress and improve or atleast maintain the value of these firms

The finding of this study confirms the argument of Anna and Nila who conducted a study on the influence of cost of equity on financial distress and firm value. The study aim was to determine whether cost of equity affect the financial distress thus causing reduction in firm value. The findings revealed that cost of equity has a significant effect on financial distress and that financial distress does not mediate the relationship between cost of equity and firm value. This implies that if cost of equity is effectively controlled it will not cause financial distress to firms.

Yasin, Muhammad and Abdul explored the relationship between financial distress, financial flexibility and firm performance evidenced from Pakistani Stock Exchange. The findings affirmed that firms which are financially flexible have lower chances of facing financial distress and they are more likely to realize higher profits than their counterparts which are relatively inflexible. Their finding supported the pecking order theory among the Pakistani firms. The study concluded that firm finances increases with increase in firm flexibility thus a reduction in financial distress to the firms. This implies that large firms have lesser chances of financial distress that smaller firms due to their financial flexibility. [17]

Ikpesu and Eboiyehi carried out a study on capital structure and corporate financial distress of manufacturing firms in Nigeria. The findings revealed that capital structure has a negative effect on corporate financial distress. Further the study argued that firm growth and size affect financial distress negatively. The study argued that managers should exercise caution whenever making financial decisions while governments have an obligation to encourage firms to use internal funds through grants of preferential tax advantages on retained profits to the firms. Later, Ikpesu study on firm specific determinants of financial distress with particular evidence from Nigeria revealed that leverage, liquidity, growth of revenue are the main firm determinants of financial distress. The argument by these scholars is supported by the findings of this study

Hillary, Nyang'au and Ngacho conducted a study on the effects of financial distress on financial performance of manufacturing firms listed in Nairobi Securities Exchange. The findings revealed that high levels of debt to total assets means higher risk and likelihood of increased distress to the firms. Further the results affirmed that financial distress and return on assets as a measure of firm performance have no correlation, however there exists one with return on equity and there is indirect impact of financial distress on both return on assets and return on equity. This means that different measure of firm performance would produce different results on the effect of distress costs of firm performance.

Table 4.1 Bankruptcy Costs

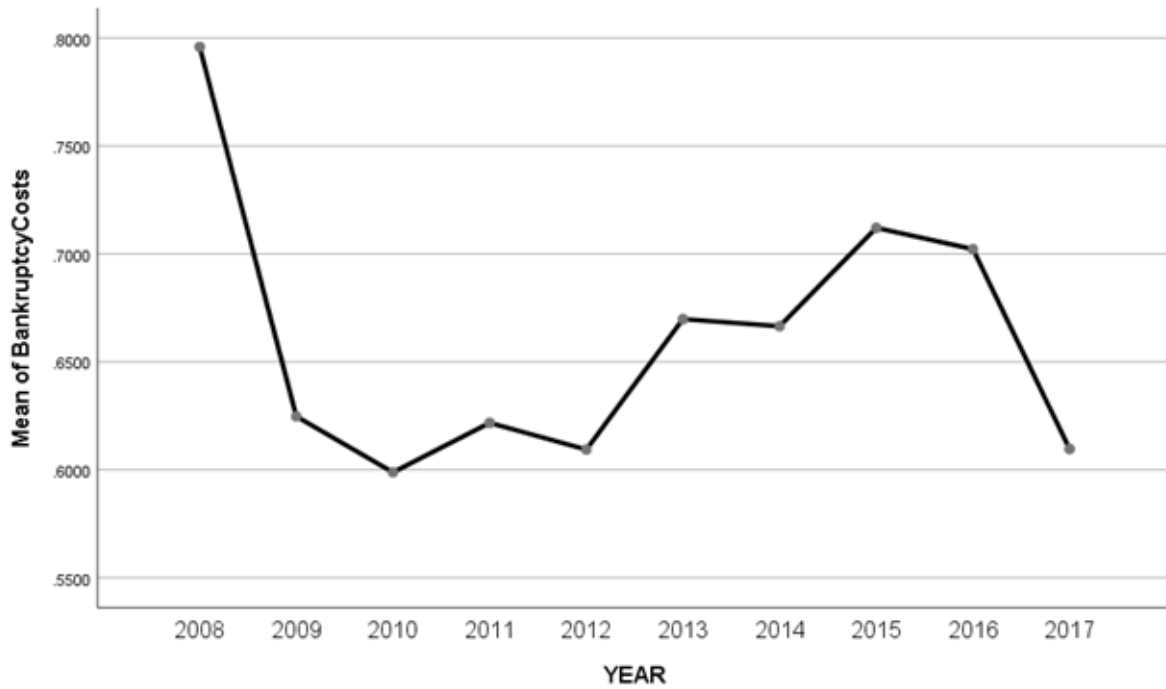|	N	Minimum	Maximum	Mean	Std. Deviation
DebtTotalAss	400	.01	8.34	.6611	.60882
WkingTotalAss	400	-7.34	5.93	.2546	.70037
Valid N					

Source: Field Data 2019

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Figure 4.3: Bankruptcy Costs Trend

Table 4.2 Correlation between Bankruptcy Costs and Value of Firms

		FirmValue	Bankruptcy Costs
FirmValue	Pearson Correlation	1	.129**
	Sig. (2 tailed)		.010
	N	400	400
Bankruptcy Costs	Pearson Correlation	.129**	1
	Sig. (2 tailed)	.010	
	N	400	400

**. Correlation is significant at the 0.01 level (2-tailed).
Source: Field Data 2019

Table 4. 3 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.129a	.017	.014	224.30607106

Source: Field Data 2019

Table 4.5 ANOVA on Bankruptcy Costs and Value of Firms

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	774628.042	2	387314.021	7.850	.000b
Residual	19588113.952	397	49340.337		
Total	20362741.995	399			

Source: Field Data 2019

5.0 Conclusions

The study affirms that bankruptcy costs significantly affect the value of firms listed in NSE and shows a postive relationship between bankruptcy costs and value of firms. It implies that the value of firms listed in NSE significantly increase with the increase in debt levels . Increasing levels of debt while maintaining levels of investment in assets increases distress levels to the firms or borrowing without planning on potential investment opportunities at the disposal of the firm. On the contrary, increase in investment in assets while maintaining manageable levels of debt would be the prefered situation, however the firm should strike a balance between investment in assets and sales volumes to avoid situations of overtrading or undertrading.

This finding agrees with existing literature to the extent that bankruptcy costs significantly affect the value of the firms however it forms a departure in the nature of the relationship between bankrucptcy costs and value of firm. The literature opines that bankruptcy costs have a negative relationship with value of firms but empirical evidence from this study suggest that the relationship is positive.

The finding support the traditional theory argument that optimality of capital structure is attained when costs are at their lowest and gains at highest point. In this context bankruptcy costs considered one of the indirect costs of a firm contributes to the optimality of the capital structure. Equally the relevance of the interrogation of the effect of optimal capital structure on value of firms is supported in this study by this finding thus affirming the applicability of the traditional theory.

6.0 Recommendations

Further the findings suggested that management of these firms should strategize on how to reduce bankruptcy costs through minimizing distress situations in the firms bankruptcy costs arise due to failure in governance structures between the firms other stakeholders. The findings also revealed that bankruptcy is a situation which can be avoided by any firm through management emphasizing compliance with existing governance structures and watching for the signal on increasing bankruptcy cost. There is a negative relationship between bankruptcy costs and value of firm, hence the higher the bankruptcy costs the lower is the value of the firm and vice versa. Bankruptcy costs emanate from external stakeholders who demand their interest from the firm and therefore if the external claims could be minimized by the firm through utilizing alternative ways then the value of firms can increase. For instance, the firm can use retained profits as a source of funds instead of borrowing from outside the firm.

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