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Abstract

Financial distress research of companies has attracted a growing attention in the recent past. This phenomenon of financial distress in public companies has been witnessed by a number of corporate failures and the increase in delisting of listed companies. This study therefore attempts to determine the effectiveness of market ratios on financial distress of listed firms in Nairobi Security Exchange Market, Kenya. Liability management theory, was reviewed which provides a foundation for both liquidity ratio and financial distress. The study used a panel study as an observational study. The target population will be 62 listed companies in Nairobi Security Exchange Market as indicated in from year 2011-2015. The entire population will be used in this study. The study will use document analysis by getting panel data from listed companies in Nairobi Security Exchange Market. Panel data is a good indicator or measure of financial distress. Descriptive and inferential statistics method will be used for data analysis and interpretation. Data was presented using tables and diagrams. Hypotheses were tested at 0.05 level of significance (95% confidence level) from OLS pooled regression (fixed and random effect) which shows the relationship between the independent variable and dependent variable. The findings show that market ratio has a positive and significant effect on financial distress, \( \beta = 0.593; p< 0.05 \). This study is significantly important in that it will enhance efficient management and financing of working capital can increase the operating profitability ratio.

1.0 Introduction

Financial distress research of companies has attracted a growing attention in the recent past (Liao & Mehdian, 2016; Mselmi et al., 2017). This upsurge in research attention could be attributed to the importance attached to the need of firms to understanding financial dimensions that are revealed in moments of crisis (Pindado et al., 2008). Grice & Ingram (2001) and Agrawal (2015) defined financial distress as the inability of a firm to satisfy its financial obligations as and when they fall due. This is often witnessed whenever the firm’s operational cash flows are lower than its financial expenses (Tsun-Siou et al., 2004). Business firms additionally encounter financial distress when they confront lacking liquidity to meet their financial liabilities. The most discernible impact of financial distress is the suspension of debt premium instalments, cutting capital costs, exchanging settled resources and scaling back (Sanz & Ayca, 2006) temporary insolvency and low liquidity (Jabeur & Fahmi, 2017).

One of the major objectives of financial analysis is to decrease the degree of risk, to which creditors are exposed as a result of bankruptcies and defaulting on debts (Tamari, 1966). One system often used to scrutinize the financial position of a firm as reflected in its financial statements is ratio analysis - comparison of various data in the balance sheet and profit and loss statement. The ratio of current assets to current liabilities, for example, indicates the firm's capacity to meet such liabilities; the ratio of net worth to total liabilities shows the owners' share in the assets of the business; the ratio of net profit to net worth gives the return on proprietary capital; and the ratio of net profit to the value of production gives some indication of the enterprise's pricing policy. The exact choice of ratios will clearly depend on the object in view and the information available (Tamari, 1966). Ratios are among the most popular and widely used tools of financial analysis. Yet their...
function is often misunderstood and, consequently, their significance often overrated. A ratio expresses a mathematical relation between two quantities (Bersten & Wild, 1999).

Financial ratios are the most commonly used in analyzing, understanding and interpreting corporate financial statements and in evaluating and monitoring company’s performance over time. The ratios point out changes and identify irregularities, abnormalities and surprises that would require further investigation to ascertain the current and future financial standing of the company (Barry & Jamie Elliot, 2006). The ratios are based on the firm’s past behavior and are unaffected by any additional knowledge in the hands of the investigator on the future of the branch, the business or social standing of the owner, Government policy, etc. (Tamari, 1966).

For the ratios to be more meaningful, a standard is required when traditional ratio analysis techniques are used in analyzing financial statements. Such standards can be adjusted depending on the economic conditions obtaining at the time or the changes in company objectives. The most commonly used ratio analysis techniques are trend analysis and cross sectional analysis. Trend analysis relates the company’s performance over time; the benchmark therefore could be the previous year’s financial ratios, the budgeted financial ratios, budgeted financial ratios for the same period or financial ratios for other profit centers or cost centers (Barry & Jamie, 2006). With cross sectional analysis, the benchmark is the financial ratios of another company either in the same industry or in a different industry.

1.2 Statement of the Problem

Kenyan companies have equally been affected by financial distress. In the recent past Uchumi Supermarket has suffered financial distress and was put under receivership (Kipruto, 2013). Companies listed at the NSE are no exception to financial distress and bankruptcy (Mohamed, 2012). These companies are expected to be health financially in order to maintain investor confidence. Miller (1991) argues that the bankruptcy on indebted firm will send a shock wave to the firm’s equally indebted suppliers leading in turn to more bankruptcies until eventually the whole economy collapses in a heap. The financial health of firms listed at the NSE will influence the transactions conducted at the NSE. More recently Mumias Sugar Company, Kenya airways have been hit hard by financial distress and have asked the government for bailouts (The Standard Newspaper, June 27 2015). Mamo (2011) and Kariuki (2013) studied financial distress of the banking industry in Kenya using the Z – score. Kipruto (2013) and Shisia et al. (2014) studied financial distress in Uchumi Supermarkets using the Altman’s Z – score model. No significant studies have been done in Kenya on financial distress prediction. The original Z – score model (Altman, 1968) was developed to predict financial distress and bankruptcy in large manufacturing firms in the United States of America. This study therefore differs from the above studies in that it sought to test the validity of Altman (1968) model in the Kenyan context and in particular listed companies at the NSE.

In his MBA project, Mamo (2011) conducted a study on financial distress of Kenyan banking industry. He used Altman (1968) model of predicting financial distress on 43 banks. The model was found to be an accurate predictor on 8 out of 10 failed firms, 80% validity for the model. On the sampled non-failed firms majority of them proved the Edward Altman’s financial prediction model to be 90% valid. In another study in the banking industry Kariuki (2013) sought to establish the impact of financial distress on commercial banks performance. She sought to know whether they are in distress, if so how their performance is affected and how to rectify the situation.

The findings indicate that most banks under study had financial distress, non-listed banks suffered more. Financial distress had significant impact on financial performance. There is a negative relationship between financial distress and financial performance. The study established the need to reduce financial distress by ensuring financial stability in banks to ensure shareholders confidence. Shisia et al. (2014) conducted a study with the objective of Altman failure prediction model in predicting financial distress in Uchumi Supermarket in Kenya. They used secondary data for a period of five years from 2001 – 2006. The study established that Altman failure prediction model was appropriate for Uchumi Supermarket as it recorded declining Z – score values indicating that it was suffering financial distress. It is always important account users will need only a small number of financial ratios to make crucial decisions about a company’s state of affairs. Hence, it will be costly and waste of resources for corporate stakeholders to focus on the numerous financial ratios in order to make critical business decisions. There is also the risk of focusing on less important, ambiguous or the wrong type of ratios.

There is need to determine which ratios are more statistically effective than others in predicting financial distress. The ratios in themselves may not be as useful when applied individually. It is therefore necessary to combine several ratios. The problem then is to determine which ratios are more significant in such decision making process. It would not be viable for analysts, creditors investors
to apply all the over 50 financial ratios. According to Polemis et al., (2012) massive fluctuating environment and the financial crisis highlight the need for future research on the world trade implications, as well as individual macroeconomic variables of each country. This study looks at the Kenyan companies listed in the Nairobi Stock Exchange. This study would seek to determine the predictive power of ratios in all the firms listed in NSE and thus determine the most appropriate ratios that can be used to effectively predict the financial distress.

2.0 Literature Review and Hypothesis Development

Liability Management Theory

Since the early 1960s, the loan portfolios of banks have been affected by the emergence of new theory, which became known as the liability management theory. This is one of the significant liquidity management theories and says that there is no need to follow old liquidity norms like maintaining liquid assets, liquidity investments etc. lately banks have focused on liabilities side of the balance sheet. According to this theory, banks can satisfy liquidity needs by borrowing in the money and capital markets. The fundamental contribution of this theory was to consider both sides of a bank’s balance sheet as sources of liquidity (Emmanuel, 1997).

Today, banks use both assets and liabilities to meet liquidity needs. Available sources of liquidity are identified and compared to expected engagement by a Bank’s Asset and Liability Management Committee (ALCO). Key considerations include maintaining high asset quality and a strong capital base that both reduces liquidity needs and improves a bank’s access to funds at low cost. There is a short run tradeoff between liquidity and profitability. In the long run, if management is successful in managing liquidity, then, long term earnings will exceed other banks earnings, as will the capital and overall liquidity (Koch and MacDonald, 2003).

This theory is relevant in this study because as earlier mentioned, firms are using both assets and liabilities to meet liquidity needs and therefore, the management of liquidity is relevant. Liquidity management according to Monnie (1998), means ensuring that institutions maintains sufficient cash and liquid assets. Reasons for this are: First, to satisfy client demand for loans and savings withdrawals and secondly, to pay the institution’s expenses. Liquidity management involves a daily analysis and detailed estimation of the size and timing of cash inflows and outflows over the coming days and weeks to minimize the risk that savers will be unable to access their deposits in the moments they demand them. For an institution to manage liquidity the institution must put in place management information system; which will be able to generate and compute ratios needed to make realistic projections on liquidity.

Shiftability Theory of Liquidity

Shiftability is an approach to keep banks liquid by supporting the shifting of assets. An explanation of bank liquidity that holds that a bank’s capacity to meet liquidity demands is related to the volume of its assets that can be readily shifted to another bank. Shiftability theory was pioneered by H. G. Moulton in 1918, who affirmed that if the institutions especially of finance maintain a reasonable quantity of assets that can be exchanged for cash without losing materials in case of need, then you don’t need to rely on maturities. In other words, to perfectly shift an asset, it must be instantly be transferred without losing capital when the need for liquidity arises. This is specifically applicable to market investments which are of short term, such as treasury bills which can be immediately sold whenever it is necessary to raise funds by these firms.

The shiftability theory replaced the commercial loan theory and was supplemented by the doctrine of anticipated income. Formally developed by Harold G, H.G. Moulton in 1918, the shiftability theory held that banks could most effectively protect themselves against massive deposit withdrawals by holding, as a form of liquidity reserve, credit instruments for which there existed a ready secondary market. Included in this liquidity reserve were commercial paper, prime bankers’ acceptances and, most importantly as it turned out, treasury bills. Under normal conditions all these instruments met the tests of marketability and, because of their short terms to maturity, capital certainty.

A major defect in the shiftability theory was discovered similar to the one that led to the abandonment of the commercial loan theory of credit, namely that in times of general crisis the effectiveness of secondary reserve assets as a source of liquidity vanishes for lack of a market (Casu et al., 2006). The role of the central bank as lender of last resort gained new prominence, and ultimately liquidity was perceived to rest outside the banking system. Furthermore the soundness of the banking system came to be identified more closely with the state of health of the rest of the economy, since business conditions had a direct influence on the cash flows, and thus the repayment capabilities, of bank borrowers. The shiftability theory survived these realizations under a modified form that included the idea of ultimate liquidity in bank loans resting with shiftability to the Banks (Allen and Gale, 2004).

This theory has certain prerequisites of truth on this research as shares and debentures of large
companies are acknowledged as liquid assets along with treasury bills and bills of exchange. It is more efficient approach in running firm financial system: with fewer reserves or investing in long-term assets. However, this theory has weaknesses. First, it does not provide liquidity to a firm by mere shiftability of assets as it completely depends upon the economic circumstances. Secondly, the theory ignores the fact that the debentures and shares cannot be shifted on to other organizations during acute depression. In such a situation, there are no buyers and all who possess them want to sell them. Third, a single institution may have shiftable assets in sufficient quantities but if it tries to sell them when there is a run, it may undesirably upset the whole finance system. Lastly, if all the financial institutions concurrently start shifting their assets, it would have devastating effects on both the creditors and debtors.

Market Ratios and Financial Distress
Market value ratio is also call share ownership ratio. It referred to the stockholders way of analyzing the present and future investment in a company. In this ratio the stockholders are interested in the way certain variables affect the value of their holdings. It helps the stockholder to be able to analyze the likely future market value of the stock.

Abu Shanab (2008) examined the impact of returns and risks on the share prices for a sample of 38 industrial public companies in Jordan listed on Amman Security Exchange for the period of 2000 to 2007. The results of the study showed that there is no effect for the returns, risks and dividends on the market value per share. However, the results indicated that there is a significant relationship between cash flow and share prices.

AL Kurdi (2005) study explored the ability of the published accounting information to predict share prices for a representative sample of 110 Jordanian public companies listed in Amman Security Exchange for the period of 1994 to 2004. The results informed that there is a relationship between the published accounting information of the insurance public companies and their share. The results also informed that market information have more ability on predicting share prices compared to the accounting information. Abu Hasheesh (2003) examined the role of published accounting Information in predicting share prices. The study used a sample of 40 Jordanian public companies listed in Amman Security Exchange for the year 2003. The results showed that there is a positive significant positive relationship between the market price per share with the ratios of net profits to equity, net profits to total assets, and dividends to net profits as a total. The results showed also a significant negative relationship between the market price per share, with the ratios of fixed assets to total assets, the creditors total to total of cash sources, and the wages ratio to total of expenses ratio.

H0: Market ratios does not effectively predict financial distress of listed companies in Nairobi Security Exchange Market

Conceptual Framework

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Dependent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market ratios</td>
<td>Financial Distress</td>
</tr>
<tr>
<td>Earnings per share ratio</td>
<td></td>
</tr>
<tr>
<td>Market ratio</td>
<td></td>
</tr>
</tbody>
</table>

3.0 Research Design and Methodology
This study adopted cross sectional research design. A cross-sectional study is an observational study. Explanatory research seeks to establish causal relationship between variables (Saunders et al., 2009 &Robson 2002). According to Kerlinger & Lee (2000) a cross sectional research design is appropriate where the researcher is attempting to explain how the phenomenon operates by identifying the underlying factors that produce change in it in which case there is no manipulation of the independent variable. This study therefore used panel data research design seeking to establish the relationship between accounting ratios and firm financial performance.

A population is the total collection of elements about which inferences are made and refers to all possible cases which are of interest for a study (Sekaran, 2003). A target population is the totality of cases conforming to the designated specifications as
required by the study and could be people, events or things of interest. In this study the target population comprised all firms listed at the Nairobi Securities Exchange (NSE). The NSE had 61 firms as at August 10, 2016.

**Census Inquiry**

In this study the population of interest were the firms quoted at the Nairobi securities exchange, and a census of all firms listed at the Nairobi Securities Exchange from year 20011-2016 were employed. This will enable the researcher obtain (68*5) totalling to 340 observations.

**Data Collection Instruments**

The study used secondary data, this is data collected by someone other than the user. Common sources of secondary data for social science which this study used include censuses, organizational records and data collected through qualitative methodologies or quantitative research. Analysts of social and economic change consider secondary data essential, since it is impossible to conduct a new survey that can adequately capture past change and/or developments.

The study utilized panel data which consisted of time series and cross-sectional data. The data for all the variables in the study was extracted from published annual reports and financial statements of the listed companies at the NSE covering the years 2010 to 2015. The data was obtained from the NSE hand books for the period of reference. Data extracted included the income statement, statement of financial position, and notes to the accounts using a document review guide.

**Measurement of the Variables**

**Dependent variable**

Financial distress was measured using the Z-score for firm i in year t, developed and validated by Altman (1968) and reviewed by Altman & Hotchkiss (2006).

\[ Z = 1.2A \times 1.4B \times 3.3C \times 0.6D \times 0.99E \]

The letters in the formula designate the following measures:

- **A** = Working capital / Total assets [Measures the relative amount of liquid assets]
- **B** = Retained earnings / Total assets [Determines cumulative profitability]
- **C** = Earnings before interest and taxes / Total assets [measures earnings away from the effects of taxes and leverage]
- **D** = Market value of equity / Book value of total liabilities [incorporates the effects of a decline in market value of a company's shares]
- **E** = Sales / Total assets [measures asset turnover]

**Independent Variable**

Market ratios is measured was measured by Price / Earnings

The multiple regression model used in this study is given as:

Where,

\[ y_{it} = \alpha + \beta_1 x_{1it} + \varepsilon_{it} \]

- **Y** = Financial Distress
- **α** = constant.
- **β** = the slope which represents the degree in which firm performance changes as the independent variable change by one unit variable.
- **X** = Market ratios
- **ε** = error term
- **t** = measure of time
- **i** = number of firm observation

**4.0 Results and Discussions**

**Descriptive statistics**

In panel data descriptive statistics are a collection of measurements of two things: location and variability. In this case, location tells the central value of the variable (where the mean is the most common measure). Variability refers to the spread of the data from the center value (that is, variance, standard deviation, in this case the standard deviation is inferred). Consequently, the study sought to determine the descriptive statistics of the panel data especially the mean, standard deviation and maximum and minimum values. The findings were summarized and presented in Table 4.1.

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketing Ratio</td>
<td>240</td>
<td>0.811</td>
<td>0.171</td>
<td>0.054</td>
<td>1.619</td>
</tr>
<tr>
<td>Financial distress</td>
<td>240</td>
<td>1.152</td>
<td>0.113</td>
<td>0.000</td>
<td>0.947</td>
</tr>
</tbody>
</table>

The findings in Table 4.1 showed that assessment of the liquidity ratio analysis of the firms revealed a mean of 1.675 with a minimum of 0.000 and a maximum of 6.209 (std. dev. = 1.029) implying that majority of the firms were able to meet their current liabilities comfortably using their current assets. The
mean for financial distress was 1.152 with a minimum of 0.000 and a maximum of 0.947 (std. dev. = 0.113) while the mean for marketing ratios was 0.811 with a minimum of 0.054 and maximum of 1.619 (std. dev. = 0.171).

Assumptions of Regression Analysis

Normality

Jarque-Bera (JB) test for normality was used to test for normality of error terms. According to Brys et al., (2004) the JB tests the hypothesis that the distribution of error terms is not significantly different from normal (H0: E (ε) ~N (μ=0, Var. =σ2)). The results of the tests are presented in Table 4.2. The results show that the significance levels for the Jarque-Bera statistics were greater than the critical p-value of 0.05 implying that the errors were not different from normal distribution (Tanweeer, 2011).

Table 4.3: Test Statistics for Model Residual Normality

<table>
<thead>
<tr>
<th>Model</th>
<th>JB (Prob.)</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td>3.637 (0.239)</td>
<td>Normal</td>
</tr>
</tbody>
</table>

Source: Research Data (2018)

The multiple linear regression analysis requires that the errors between observed and predicted values (that is, the residuals of the regression) should be normally distributed.

Multicollinearity

Multiple linear regression assumes that there is no multicollinearity in the data. Multicollinearity occurs when the independent variables are too highly correlated with each other. It can be tested using the Variance Inflation Factor (VIF) - the VIFs of the linear regression indicate the degree that the variances in the regression estimates are increased due to multicollinearity. VIF values higher than 10 indicate that multicollinearity is a problem. In addition, tolerance values of less than 0.1 indicate the presence of multicollinearity.

Table 4.4: Results of Multicollinearity test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketing Ratio</td>
<td>0.763</td>
<td>1.310</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Financial distress

The findings in Table 4.4 revealed that the VIF values for all the independent variables were below 10. This means that for all the independent variables, there was no presence of multicollinearity.

Testing for Unit Roots

Before empirical estimations are conducted, the data series are subject to unit root tests to establish their stationarity conditions, that is, their orders of integration. Therefore, the series must be primarily tested for stationarity in all econometric studies (Granger and Newbold, 1974). In case a series is found to be non-stationary at levels, it is differenced until it became stationary (Gujarati, 2004; 2007 and Baltagi, 2001). Since panel data models were used in this study and the data set had a time dimension, unit root existence was investigated by panel unit root tests. Maddala and Wu (1999) suggest that using panel unit root tests yields statistically better results compared to the results of unit root tests like Philips-Perron, which are based on a single time series.

This study conducted unit root test for the variables using the Augmented Dickey Fuller unit root test. As shown in Table 4.5 the p-values for the Augmented Dickey Fuller Chi-square statistic were less than the critical values of 0.05 for financial distress, and Marketing. This implies that these variables/panels (had no unit roots) and therefore suitable for modelling and forecasting. To correct for non stationarity in profitability, the first difference of the variables [D (var)] was used in the regression model.

Table 4.5: Unit root test

<table>
<thead>
<tr>
<th>Series</th>
<th>(χ2)</th>
<th>P-value</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Distress</td>
<td>396.84</td>
<td>0.000</td>
<td>Do not Reject H0</td>
</tr>
<tr>
<td>Marketing</td>
<td>-2.842</td>
<td>0.013</td>
<td>Do not Reject H0</td>
</tr>
</tbody>
</table>

Source: Research data (2018)
Correlation Analysis

Correlation analysis is usually used to establish the level to which two variables converge or diverge together depending on the case so as to determine the significance of the relationship. Normally, the Pearson's Product Moment Correlation Coefficient is used to make inference about the existing relationship between two variables. Generally, correlation analysis depicts to a certain degree, the aspect of how one factor influences another. However, correlations do not imply or infer a cause-effect relationship. Consequently, a correlation analysis of the independent factors and the dependent factor (Financial distress) was conducted and the findings were summarized and presented in Table 4.6.

Table 4.6: Correlation analysis

<table>
<thead>
<tr>
<th>Financial Distress</th>
<th>Market Ratios</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-0.186**</td>
</tr>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>0.004</td>
<td></td>
</tr>
</tbody>
</table>

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

The findings in Table 4.5 revealed that market ratio has a negative and significant relationship with financial distress, $\rho = -0.186$, $p$-value = 0.004 and this means that there is 18.6% chance that financial distress will decrease with increase in the market ratio.

The findings also showed significant inter-factor relationships between profitability ratios and liquidity ratios, $\rho = 0.135$, $p$-value = 0.036 and between market ratios and leverage ratios, $\rho = 0.408$, $p$-value = 0.000. Although these findings do not imply a cause-effect relationship, they point to the existence of a cause-effect linear relationship especially between the response and explanatory variables.

Regression Results

Model Specification Tests Statistics

In this study the random effects model was used in constructing the panel regression models. The decision for using random effects models in this study was based on the Hausman specification test (Wooldridge, 2002; Greene, 2002). According to Gujarati (2004) Hausman specification test should be used to determine between random and fixed effects. Accordingly, the null hypothesis is rejected when $\text{Prob.} > \chi^2$ is less than the critical $p$-value and in such a case the fixed effects regression is appropriate. All the models were run on random effects since the significance levels were greater than the critical value of 0.05.

Table 4.7: Model Specification Test Statistics for Z score

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$ Statistic</th>
<th>$\chi^2$ d.f.</th>
<th>Prob.</th>
<th>Appropriate Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td>4.578</td>
<td>14</td>
<td>0.764</td>
<td>Random Effects</td>
</tr>
</tbody>
</table>

Source: Research data (2018)

Hypothesis Testing

To test the various hypotheses the various predictor variables were regressed against the response variable. Random effects regression models were run for all the models and the results presented. The $F$-statistics was used to test the regression models (Blackwell III, 2005) or simply the goodness of fit (Hoe 2008). The test was used to test significance of then regression parameters at five percent significance level using the following criteria; $H_0: B_2=0$ and $H_1: B_2\neq0$, $H_0$ being rejected if $B_2 \neq 0$, $p$-value $\leq 0.05$.

The Null Hypothesis $H_0$ stated that market ratios do not have significant effect financial distress of banks listed in the NSE. The findings showed that liquidity analysis ratio has a positive and significant effect on financial distress, $\beta_1 = 0.593$, $p < 0.05$. This means that hypothesis 3 was rejected. This imply that with each unit increase in liquidity analysis ratio, financial distress would increase by 0.593 units. These findings correspond with literature that liquidity ratios determine the organization’s ability to pay debt in short term. Thus, an increase in market ratios enhance firms’ financial position. Any failure to meet these can damage its reputation and creditworthiness and in extreme cases even lead to bankruptcy.
Table 4.8: Regression Results

<table>
<thead>
<tr>
<th>Group variable: firm</th>
<th>Number of obs = 353</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-sq: within = 0.477</td>
<td>Number of groups = 35</td>
</tr>
<tr>
<td>between = 0.435</td>
<td>Obs per group: min = 8</td>
</tr>
<tr>
<td>overall = 0.475</td>
<td>avg = 10.1</td>
</tr>
<tr>
<td>corr(u_i, X) = 0 (assumed)</td>
<td>max = 11</td>
</tr>
<tr>
<td></td>
<td>Wald chi2(6) = 313.6</td>
</tr>
<tr>
<td></td>
<td>Prob&gt; chi2 = 0.000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Financial distress</th>
<th>Coef.</th>
<th>Std. Err.</th>
<th>t</th>
<th>P &gt; t</th>
<th>[95% Conf. Interval]</th>
</tr>
</thead>
<tbody>
<tr>
<td>_cons</td>
<td>0.885</td>
<td>0.684</td>
<td>1.29</td>
<td>0.197</td>
<td>-0.462 to 2.232</td>
</tr>
<tr>
<td>Market ratio</td>
<td>-1.115</td>
<td>0.374</td>
<td>-2.98</td>
<td>0.003</td>
<td>-1.852 to -0.378</td>
</tr>
</tbody>
</table>

5.0 Summary, Conclusions and Recommendations

Effectiveness of Market Ratios in Predicting Financial Distress of Firms Listed on the NSE

The mean market ratio was 0.811 with a minimum of 0.054 and a maximum of 1.619. The findings revealed that market ratio has a negative and significant effect on financial distress controlling for firm age and firm size. The market ratio plays a pivotal role in investment practices and it has been found to reflect the market’s expectation of future growth and is associated with reduced financial distress. The market ratio is used to estimate the cost of equity capital and is also heavily used by financial analysts to justify their stock recommendations. Valuations and growth rates of companies may often vary wildly between sectors due to the differing ways companies earn money and to the differing timelines during which companies earn that money. As such, one should only use market ratios as a comparative tool when considering companies within the same sector, as this kind of comparison is the only kind that will yield productive insight. Thus, the negative effect found here is against a background of comparing firms in different sectors.

Conclusion

The study successfully extended knowledge by studying and testing whether financial ratios predict financial distress. Based on the findings of this study, the following conclusions can be drawn; Overall, the study is suggesting that the financial ratios plays a critical role in the prediction of financial distress. Market ratio has been showed to have a negative and significant effect on financial distress of a firm. An individual company’s market ratio is much more meaningful when taken alongside market ratios of other companies within the same sector.

Recommendations

Financial ratios can provide small business owners and managers with a valuable tool with which to measure their progress against predetermined internal goals, a certain competitor, or the overall industry. In addition, tracking various ratios over time is a powerful means of identifying trends in their early stages. Ratios are also used by bankers, investors, and business analysts to assess a company’s financial status. Ratios are aids to judgment and cannot take the place of experience. But experience with reading ratios and tracking them over time will make any manager a better manager. Ratios can help to pinpoint areas that need attention before the looming problem within the area is easily visible. It is important to keep in mind that financial ratios are time sensitive; they can only present a picture of the business at the time that the underlying figures were prepared. Determining which ratios to compute depends on the type of business, the age of the business, the point in the business cycle, and any specific information sought. However, in this study, the firm age and firm size were controlled.

Suggestions for Further Research

The study determined effectiveness of four accounting ratios, liquidity analysis ratios, activity analysis ratios, capital structure analysis ratios and cash ratio on financial distress. The study only covered companies listed in the NSE, particularly those which have been consistently trading for the last six years. However, the firms listed on the NSE were from various sectors of the economy. This could lead to different and in some cases biased ratios. It is thus, recommended to carry out a similar
study on firms from the same industry such as agriculture etc.

REFERENCES


