Financial Distress Model Prediction for Indonesian Companies

Dewi Anggraini
Faculty of Economics,
Mercu Buana University,
Indonesia
dewi.anggraini205@gmail.com

ABSTRACT:
This study aims to find appropriate financial distress prediction model for Indonesia company with the added variable of corporate governance. Corporate governance indicators ownership structure is expected to represent the typical leadership style of Indonesia. The research is conducted on 42 companies, which consistently include in the Kompas-100 Index in Indonesia Stock Exchange within 3 (three) years (2011-2013) time period. The estimation model being used is panel data regression, with Fixed Effect Method approach. Based on the results of the data analysis and discussion, it is concluded that Managerial Ownership has no significant impact on the financial distress. However, Institutional Ownership has significant impact on the financial distress. Liquidity as a moderating variable has no significant influence for towards the ownership structure to financial distress.

Keywords: Managerial Ownership, Institutional Ownership, Liquidity, Financial Distress
1. INTRODUCTION

All companies want to retain their sustainability; yet, often the condition of the company is not in accordance with the plan and had to face the problem of financial hardship/financial distress. Financial distress is a condition where companies are facing liquidity problems and unable to pay its obligations. Financial distress late handled will cause bankruptcy/liquidation. Therefore premature predictions about the likelihood of financial distress will assist companies in finding the best solution for the financial problems being faced.

According to Hanafi and Halim (2012), financial difficulties can be drawn from the two extremes, namely short-term liquidity difficulties (the lightest) to insolvable (the most severe). Short-term difficulties and the long-term can cause disrupted company operations and even for companies that go public can lead to delisting forced by Indonesian Stock Exchange (Bursa Efek Indonesia—BEI).

Many studies have attempted to assess the cause or the factors that influence the occurrence of financial distress that use indicators of financial statements in his research. This indicator is obtained from the analysis of financial ratios contained in the financial statements published information company. According Prihadi (2010) in univariate models ratio of cash flow/total liabilities is the most powerful indicator for predicting bankruptcy while in the multivariate models are the most powerful ratios: liquidity, solvency, profitability and activity.

According to Plat and Plat (2006) prediction of bankruptcy was begun to be examined by experts such as Beaver (1966) and Altman (1968), then continued with newer method by Altman, Marco and Varetto (1994).

Various models have been found and based on the results of the study factors that can be used to predict bankruptcy. The factors are the amount of debt, profitability, liquidity, operating performance and growth. Dwitridinda (2007) conducted a study on the effect of the application of corporate governance to the possibility of companies experiencing financial distress. Results of research conducted by Dwitridinda (2007) shows that corporate governance can illustrate the possibility of a company experiencing financial distress. Hanifah (2013) who conducted research on the influence of corporate governance structure and financial indicators of the condition of financial distress. The results showed that the size of the board of directors, managerial ownership, institutional ownership, leverage, and operating capacity has significant influence on financial distress. This study failed to prove the effect of board size, independent directors, audit committee size, liquidity, and profitability to the possibility of financial distress. Fadhilah (2013) conducted a study on the analysis of the influence of the characteristics of corporate governance to the possibility of financial distress, the results showed that the variable concentration of ownership, managerial ownership, the proportion of independent directors, managerial agency costs and audit opinion significantly influence the possibility of financial distress while the variable is not government ownership significant effect. While research Rizki (2014) focused on indicators of ownership structure on the likelihood of financial distress where liquidity as an intervening variable. The results showed that (1) there is a significant negative effect between managerial ownership of the financial distress; (2) there is no significant influence between institutional ownership of the financial distress; (3) there is no significant influence between managerial ownership to financial distress with liquidity as a mediating variable; (4) there is no significant influence between managerial ownership to financial distress with liquidity as a mediating variable.

Ward (2006) states that the likelihood of a company is in a position of financial pressures are also heavily influenced by the ownership structure of the company. Ownership structure describes the commitment of the owner to save the company. Thus the ownership structure can reduce the likelihood of financial distress.

To examine more deeply about bankruptcy prediction model in Indonesia and to examine various variables that influence financial distress, this study was conducted to determine which financial distress prediction model is right for the company in Indonesia with a consistent sample of companies included in the Compass-100 index in the Indonesia Stock Exchange with the span of the study for 3 (three) years (2011-2013).
2. THEORETICAL OVERVIEW

Financial Distress

Financial difficulties the company faced could vary between liquidity problems (technical insolvency), where the company is unable to meet financial obligations until the trouble solvency (bankruptcy), which the company has exceeded financial liabilities family fortune. (Hanafi and Hamid, 2012). If the company has no real prospect of hope, then the forced liquidation pursued. Yet many companies are experiencing financial difficulties can be rehabilitated for the benefit of creditors, shareholders, and society. Although the main purpose also considered. The condition can be regarded as symptoms of financial distress (Suciati, 2008).

Experienced in connection with the bankruptcy of Lehman Brothers, Morin and Maux (2011) in Azadinamin (2013) concluded that bankruptcy can detect signs of financial statements include:

1. "Chronic inability of liquidation and rehabilitation principal is to protect the creditors, the interests of the owner of the company to generate cash from operating activities"
2. Massive and systematic investment in working capital items and even more intensive investments in financial tools and instruments.
3. Systematic use of external financing to offset operating deficits, in which it mainly included long-term debt.
4. Steady deterioration of cash flows over three years leading to the crisis.

Furthermore, Plat and Plat (2006) describe financial distress as:

1. Evidence of layoff, restructuring, or missed dividends payments use by Lau (1987)
2. A low interest coverage ratio use by Asquith, Gertner and Scharfstein (1994)
3. Cashflow less than Current maturities of long term debt, use by Whitaker (1999)
4. The change in equity price or a negative EBIT use by John, Lang and netter (1992)
5. Negative net income before special item use by Hofer (1980)

According to Ross et al (2013), in principle, the company faces bankruptcy when the value of its assets equal to the value of its debt. If this is the case, then the value of equity is equal to zero and control of the company is switched from shareholders (stockholders) to creditors (bondholder). Furthermore, Ross stated that financial distress is the consequence of the use of debt that can be described in various ways:

1. Business failure: a state where company has been stated in suffer of loss by the creditor.
2. Legal Bankruptcy: the company has submitted to the court in order to be declared bankrupt
3. Technical insolvency: this is the case if the company is unable to meet its financial obligations
4. Accounting insolvency: the company has negative equity. This occurs when the book value of liabilities exceeded the book value of its assets

Elloumi and Gueyie (2001) in Hanifah (2013) categorizes companies with financial distress are companies which in two consecutive years experienced a negative net income. Classens (1999) in Ward (2006) defines companies that are in financial difficulties as a company that has interest coverage ratio less than one. Kristijadi (2003) in Almilia (2006) states that the company is experiencing financial distress is a company that for several years experienced a net operating profit (net operation income) and negative for more than one year does not make the payment of dividends.

Emery, Finnerty and Stowe (2004) in Dwitridinda (2007) defines a financial hardship as a situation where the company has significant problems in paying its obligations when due.

Moreover, Mahama (2015) states that: "One of the earliest studies on prediction of companies in financial distress was Altman in 1968. The study identified some financial KPIs (working capital, total assets, retained earnings, earnings before interest and tax, market value of equity, book value of total debt and sales) as important in comparing companies in a data sets of 33 failed and 33 non-failed companies ".

According Prihadi (2010), Altman Z Score is a way of calculating the rate of bankruptcy is very well known from the first. Z afternoon is the most suitable model used in Indonesia. Sanobar anjum (2012) examined the bankruptcy prediction model Altman Z Score.

Z Score bankruptcy prediction model was first introduced by Edward Altman in 1968. Early models of Dr. Altman as follows:

\[ Z = 0.012X1 + 0.014X2 + 0.033X3 + 0.006X4 + 0.999X \]

Where:

\[ X1 = \text{Working capital/total assets} \]
X2 = Retained earnings/total assets
X3 = Earnings before interest and taxes/total assets
X4 = Market value of equity/book value of total debt
X5 = Sales/total assets

Z score calculation results indicate the condition of the company as follows:
Z-score <1.81 : most likely will go bankrupt
Z-scores >2.67 : not go bankrupt
Z-scores between 1.81 - 2.67 : gray area

However, this model is only appropriate for public companies as the market value of the model requires data.

In 1983, Altman developed a Z-score model for private enterprise model as follows (Altman, 1993, in Anjum 2012):

\[ Z = 0.717(X1) + 0.847(X2) + 3.107(X3) + 0.420(X4) + 0.998(X5) \]

Where:
X1 = Working capital/total assets
X2 = Retained earnings/total assets
X3 = Earnings before interest and taxes/total assets
X4 = N.W (bookvalue)/total liabilities
X5 = Sales/total assets

Z score calculation results indicate the condition of the company as follows:
Z-score <1.23 : most likely will go bankrupt
Z-score >2.90 : not go bankrupt
Z-score 1.23 - 2.90 : gray area

In 1993,Altman continued her research and revise the model that eliminates variable X5 to eliminate the effects of industry in terms of the size of the company associated with the asset or sales can be removed (Altman, 1993, in Anjum 2012).

\[ Z = 6.56(X1) + 3.26(X2) + 6.72(X3) + 1.05(X4) \]

3. CORPORATE GOVERNANCE

Definition of Corporate Governance
Organization for Economic Cooperation and Development (OECD, 2004) defines corporate governance as a structure that has been linked to a relationship of responsibilities among related parties consisting of shareholders, board members and commissioners including the manager were established to encourage the creation of a performance Competitive required in achieving the main objectives of a company. National Committee on Governance (NCG, 2012) states that corporate governance is a process and organizational structure used by companies to give added value to the company sustainable in the long term for shareholders, with due regard to the interests of other stakeholders, based on rules and regulations puendang and norms.

Based on these definitions can be concluded that corporate governance is a set of rules that govern the relationship between the various parties in the company in connection with the rights and obligations with the aim of achieving the interests of shareholders over the long term by taking into account the interests of all parties.

Principles of Corporate Governance
In corporate governance, there are several principles, and the principles of corporate governance is ensured can be applied to every aspect of business and at all levels of the company. NCG (2012) states that there are five basic principles of corporate governance i.e. Transparency, Accountability and Responsibility, Independence, and Fairness.
Benefits of Corporate Governance

The benefits from the implementation of corporate governance according to the Forum for Corporate Governance in Indonesia (FCGI: 2006) are to

1. improve the performance of companies through the creation of a decision-making process better, and increase its operational efficiency and further enhance better services to its stakeholders;
2. make it easier to obtain cheaper financing funds so as to further enhance corporate value;
3. restoring the confidence of investors to invest in companies which exist in Indonesia;
4. satisfy shareholders with the performance of the company as well as will increase shareholders value and dividends.

Mechanism of Corporate Governance

Corporate governance mechanism is a relationship between the parties that take decisions by the parties to exercise control or supervision of the decision (Triwahyuningtiyas, 2012). Corporate governance mechanism is divided into two groups: internal mechanisms and external mechanisms. Internal mechanisms involving ownership structure in this case institutional managerial ownership and possession, as well as the composition of the board of directors / trustees. While the external mechanism in the form of market control.

Corporate governance mechanism geared to ensure and oversee the system within an organization and is expected to control the agency costs (Triwahyuningtiyas, 2012). Corporate governance mechanisms used in this study refers to an earlier study conducted by Triwahyuningtiyas (2012) and Rizky (2014). Triwahyuningtiyas (2012) and Rizky (2014) in their research stating that the ownership structure is the ratio between the number of shares held by the management of the number of shares held by investors.

The Structure of Ownership

The structure of ownership in the company is one of the internal factors that affect the achievement of corporate goals. Agency problems can be reduced by the structure of ownership because ownership structure is a mechanism to reduce conflicts between management and shareholders. As for the ownership structure in this study relates to managerial ownership and institutional ownership.

Managerial Ownership

Managerial ownership is a condition that indicates that managers have a stake in the company or the manager as well as the shareholders of the company. This is indicated by the percentage of ownership by the management company in terms of ownership by the board of directors and board of commissioners. Managerial ownership is assumed to be able to reduce the level of agency problems that arise in the company (Nur, 2007) so that the company more productive in maximizing the value of the company

Institutional Ownership

Institutional ownership is the percentage of shares held by institutions of the total shares outstanding. Institutional ownership will reduce the agency problem because by the institutional shareholders would help oversee the company so that the management will not act detrimental to shareholders. Large institutional ownership (more than 5%) will give a better ability to monitor management (Nur, 2007).

Ownership by institutional investors make management focus on company performance (Elloumi and Gueyie, 2001 in Hanifah, 2013). Institutional ownership of large (over 5%) indicate the ability to monitor the company (Hanifah, 2013). Institutional ownership is one of the corporate governance mechanism can reduce the agency problems between the owners and managers so that the resulting alignment of interests between company owners and managers. The greater institutional ownership, the more efficient utilization of corporate assets (Hanifah, 2013). This is because the larger the greater institutional ownership will be done to monitor the company that will eventually be able to improve the company's ability to meet its short-term liabilities using current assets owned by the company. It is proven that the larger the company’s ability to meet its short-term liabilities, the smaller the likelihood of financial distress.

Liquidity

Liquidity refers to how quickly and easily an asset can be converted into cash. A company that has a good liquidity will be spared from the financial distress. According to Ross (2013) liquidity ratio is the ratio used to determine the liquidity of the company that reflects the company's ability to pay short-term obligations.

In this study, the financial indicators used are the company's liquidity as measured by the Current Ratio. Current Ratio is the company's ability to repay short-term debt using its current assets.
4. PREVIOUS RESEARCH

Hanifah (2013) conducted a research on "The Effects of corporate governance structure and financial indicators of the financial distress". This study failed to prove the effect of board size, independent directors, audit committee size, liquidity and profitability, the possibility of financial distress.

Fadhilah (2013) conducted a study on "Characteristics Influence Analysis of Corporate Governance Against the Possibility of Financial Distress". The results showed that the variables of concentration of ownership, managerial ownership, the proportion of independent directors, managerial agency costs and audit opinion significant effect on the likelihood of financial distress, whereas the ownership variables no significant effect on the occurrence of financial distress.

Almilia (2006) conducted a study on "financial distress prediction of publicly traded companies using logit analysis multinominal". The results showed that the financial ratios of the income statement, balance sheet, and statement of cash flows significantly to predict financial distress.

Dwitridinda (2007) conducted a study on the "Effects of the application of good corporate governance to the possibility of companies experiencing financial distress". This study using logistic regression analysis techniques, while variables The results indicate that the variable size of the company, the application of CG and profit has a significant relationship to financial distress.

Pranowo (2010) conducted a study on the "Determinant of corporate financial distress in an emerging market economy: empirical Indonesia evidence from the stock exchange from 2004 to 2008". The results showed that the variable current ratio, efficiency, equity, and dummy variable of good financial condition, has a positive and significant impact on the financial distress and leverage variables have a significant negative effect on the financial distress, while profit, retain earnings, GCG, and macro economic factors has no effect on financial distress.

Triwahyuningsih's (2012) conducted a study on the "Analysis of the influence of the ownership structure, the size of the board, independent directors, liquidity and leverage against the occurrence of financial distress". The results showed that the structure of ownership, board size, liquidity and leverage, has pengarauh significantly to the possibility of companies experiencing financial distress. While the board size and independent commissioner has no effect on the possibility of companies experiencing financial distress.

Rizki's report (2014), entitled "Effect of Ownership Structure on Financial Distress with Liquidity as an Intervening Variable", studies manufacturing companies listed in Indonesia Stock Exchange (BEI) from 2011-2013. The results showed that managerial ownership significantly influence financial distress but institutional ownership does not significantly influence financial distress. Managerial ownership and institutional ownership has no effect is not immediate and not significant to the financial distress through liquidity as a mediator variable.

Azadinamin (2013) with the title "The Bankruptcy of Lehman Brothers: Causes of Failure & Recommendations Going Forward" concluded that the negative cash flow during the three years of the main reasons for the bankruptcy of Lehman Brothers.

Moreover, Mahama (2015) takes the title of "Assessing the State of Financial Distress in Listed Companies in Ghana: Signs, Sources, Detection and Elimination - A Test of Altman's Z-Score". This study examined the application of Altman’s Z pm on 10 companies listed in The Ghana Stock Exchange (GSE) to determine the level of difficulty. The data used covers the period 2007 to 2013. The results showed that 6 (six companies are not experiencing financial difficulties, two (2) companies are experiencing financial difficulties and two (2) more companies are facing the problem of financial hardship.

Anjum (2012) examined the bankruptcy prediction model Z Score and concluded that Altman’s Z score model can be applied to the modern economy. to predict financial distress and bankruptcy of one, two and three years.

5. FRAMEWORK

Based on the study of theory and previous studies it can be concluded that the financial distress is a financial condition that occurs prior to the bankruptcy or liquidation. Financial distress is reflected from the inability or unavailability of funds to pay for obligations that have matured. Thus, the low value of the liquidity of the company, the greater the likelihood the company will experience financial distress.

According to Altman model of factors that influence financial distress toTotal includes Working Capital assets, Retained Earnings to Total Assets, EBIT to total assets and Net Worth to Book Value To Total Liability.
Ownership structure describes the commitment of the owner to save the company. Thus, the ownership structure can reduce the likelihood of financial distress.

Appropriate agency conflicts of interest with management theory can be managed, among others, the managerial ownership, managerial ownership can therefore affect the financial distress. While ownership by institutional investors resulted in management focusing on the company's performance (Elloumi and Gueyie, 2001 in Hanifah, 2013). Therefore, institutional ownership may also affect the financial distress.

Hypotheses

Based on the theoretical study and the results of previous research, a logical explanation, as well as the theoretical framework of thinking about the structure of ownership, liquidity and financial distress, then developed the hypothesis with the following explanation:

H1: Managerial ownership affects the financial distress
H2: Institutional ownership affects the financial distress
H3: Managerial ownership affects the financial distress at the company’s liquidity as a moderating variable
H4: Institutional ownership affects the financial distress at the company's liquidity as a moderating variable

6. RESEARCH METHOD

Types of Research

This study aimed to test hypotheses about the variables that affect the financial distress of the company in Indonesia. The variables that suppose influence financial distress are corporate governance and liquidity.

Location and Time of Conducting the Research

The research location is in the Indonesia Stock Exchange that provides information about the company's financial reports by accessing the official website of Indonesia Stock Exchange, namely www.idx.co.id. This study was carried out in Indonesia, the study period 2011-2013.

Definitions and Operational Variables

1. Managerial ownership is a share of the company owned by management. Managerial ownership in this study measured the percentage ownership levels by the board of directors and board of commissioners.
2. Institutional ownership is the ownership of company shares owned by institutions such as insurance companies, banks, investment companies, and other institutional ownership. In this research, institutional ownership is measured with a large percentage of institutional ownership in the company.
3. The liquidity ratio serves to indicate or measure the company’s ability to meet its obligations that were due. Rasio used in measuring liquidity are the current ratio is current assets to current liabilities.
4. Z score was used to measure the financial distress level of a company.

Population and Sample Research

The sample used in this study are consistent company included in the Kompas-100 index in the Indonesia Stock Exchange with the span of the study for 3 (three) years (2011 to 2013).

Data Collection Techniques

The type of data obtained in this study are documentary data. For example, data obtained by researchers indirectly through an intermediary medium (obtained and recorded by the other party), generally in the form of evidence of historical records or reports which have been arranged in the archive (documentary data) published and unpublished. The data used in this research is secondary data. For example data that has been processed as well as the collection of primary data through library that has to do with the problems encountered and analyzed, presented in the form of information.

7. METHODS OF DATA ANALYSIS

Descriptive statistics

Descriptive statistics used to describe the variables in this study. The analysis tool used is the average (mean), the maximum and minimum (Ghozali, 2013). This analysis tool to describe the study variables.
Classical Assumption Test
a. **Test of Multicollinearity.** Multicollinearity test aims to test whether the regression model found a correlation between the independent variables.
b. **Test of Heteroscedasticity.** Heteroscedasticity test aims to test whether in a regression model of the residual variance occurs unevenness of the observations to other observations.
c. **Test of Autocorrelation.** Autocorrelation test is the concept of linear regression mean error component correlated in order of time or sequence space. Autocorrelation test is performed to determine whether the dependent variable is correlated with the value of the variable itself, either the value or the value of the previous period period thereafter.

Regression Data Panel
a. **Analysis of determination (R2).** Analysis of determination (R2) aims to measure how far the ability of the independent variable in explaining the dependent variable.
b. **Regression Coefficients in Simultaneous Test (Test F).** Statistics F test was used to test whether the regression model used was appropriate.
c. **Partial regression coefficient test basis (t test).** T statistical test used to determine how far the influence of the independent variables individually in explaining the variation of the dependent variable.

8. RESULTS AND DISCUSSION

Descriptive Statistics

Table 1. Descriptive Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>DISTRESS</th>
<th>INSTITUTIONAL</th>
<th>LIQUIDITY</th>
<th>MANAGERIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>3.663899</td>
<td>0.759278</td>
<td>1.74503</td>
<td>0.019867</td>
</tr>
<tr>
<td>Median</td>
<td>3.310000</td>
<td>0.759800</td>
<td>1.30537</td>
<td>0.000200</td>
</tr>
<tr>
<td>Maximum</td>
<td>6.300000</td>
<td>0.989600</td>
<td>5.770000</td>
<td>0.230800</td>
</tr>
<tr>
<td>Minimum</td>
<td>2.300000</td>
<td>0.481500</td>
<td>0.20000</td>
<td>0.000000</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>1.006007</td>
<td>0.151610</td>
<td>1.114033</td>
<td>0.049282</td>
</tr>
</tbody>
</table>

Classical Assumption Test
a. **Normality Test.** Normal distribution test is a test to measure whether the data obtained has a normal distribution so that it can be used in parametric statistics (inferential statistics). In other words, the normality test is a test to determine whether the empirical data obtained from the field in accordance with a specific theoretical distribution.
b. **Test Multicollinearity.** Multicollinearity test aims to test whether the regression model found a correlation between the independent variables.

Table 2. Results Correlation between Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>DISTRESS</th>
<th>MANAGERIAL</th>
<th>INSTITUTIONAL</th>
<th>LIQUIDITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISTRESS</td>
<td>1.000000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MANAGERIAL</td>
<td>-0.151781</td>
<td>1.000000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INSTITUTIONAL</td>
<td>-0.096835</td>
<td>0.169626</td>
<td>1.000000</td>
<td></td>
</tr>
<tr>
<td>LIQUIDITY</td>
<td>0.117149</td>
<td>0.029992</td>
<td>0.049423</td>
<td>1.000000</td>
</tr>
</tbody>
</table>

From the above table, it appears that no pairwise correlation coefficient between the two variables that are above 0.80, until it can be concluded there is no strong multicollinearity problems in a regression model.

c. **Heteroskedacity Test**

Table 3. Heteroscedasticity Test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>1.107897</td>
<td>0.595692</td>
<td>1.859850</td>
<td>0.0665</td>
</tr>
<tr>
<td>MANAGERIAL</td>
<td>-0.034362</td>
<td>1.674735</td>
<td>-0.020518</td>
<td>0.9837</td>
</tr>
<tr>
<td>INSTITUTIONAL</td>
<td>-1.148760</td>
<td>0.788456</td>
<td>-1.456974</td>
<td>0.1489</td>
</tr>
</tbody>
</table>
The coefficient of the independent variable is not significant, it can be stated there are no symptoms of heteroscedasticity in the model, is accepted. Concluded there is no problem heteroscedasticity in the model.

d. **Autocorrelation Test.** Autocorrelation test is the concept of linear regression mean error component correlated in order of time or sequence space. Autocorrelation test is performed to determine whether the dependent variable is correlated with the value of the variable itself, either the value or the value of the previous period period thereafter. From the results of the research model estimation after testing autocorrelation with the Durbin Watson statistic methods of 2:36. The test results showed that multiple regression model contains no autocorrelation problem because the value of the Durbin Watson statistic is between 1.54 to 2.46.

**Panel Data Regression**

**Table 4. Panel Data Regression Result with Fixed Effect Method**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>5.172436</td>
<td>0.287743</td>
<td>17.97586</td>
<td>0.0000</td>
</tr>
<tr>
<td>MANAGERIAL</td>
<td>-1.094402</td>
<td>1.011336</td>
<td>-1.082134</td>
<td>0.2824</td>
</tr>
<tr>
<td>INSTITUTIONAL</td>
<td>-1.958168</td>
<td>0.380530</td>
<td>-5.145904</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

**Weighted Statistics**

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>R-squared</td>
<td>0.986986</td>
<td>Mean dependent var</td>
<td>10.01357</td>
<td></td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.980162</td>
<td>S.D. dependent var</td>
<td>9.197236</td>
<td></td>
</tr>
<tr>
<td>S.E. of regression</td>
<td>0.456784</td>
<td>Sum squared resid</td>
<td>17.10941</td>
<td></td>
</tr>
<tr>
<td>F-statistic</td>
<td>144.6291</td>
<td>Durbin-Watson stat</td>
<td>2.361917</td>
<td></td>
</tr>
<tr>
<td>Prob(F-statistic)</td>
<td>0.000000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. **Analysis of determination (R2).** Analysis of determination (R2) aims to measure how far the ability of independent variables in explaining the dependent variable. R-square value in the regression model is obtained by 0.986986. This means that 98.69% Financial Distress variable stock can be affected by variables ownership structure and managerial structure, while the rest of 1.31% can be influenced by other variables that are not included in this research model.

b. **Regression Coefficients in Simultaneous Test (Test F).** Based on tests which have been carried out simultaneous significance test showed F arithmetic of 0.000 which is smaller than the degree of error of 5%. From the results of this test means that the variable F Managerial Structure and Structure Ownership, jointly significant effect on the Financial Distress.

c. **Partial regression coefficient test basis (t test).** T statistical test used to determine how far the influence of one variable In a partial test by using Fixed Effect Method. Managerial Ownership Structure variables have a negative and not significant effect to the Financial Distress. Managerial Ownership Structure regression coefficient of -1.09, which means that there is an increase of one unit every Managerial Ownership structure, it will be followed by a decline of -1.09 Financial Distress one-unit. The significant value more than of 0.05, meaning that the variable does not affect the Financial Distress. Institutional ownership structure variables have a negative and significant effect on the Financial Distress. Institutional ownership regression coefficient is -1.95, which means that there is an increase of one unit every Institutional Ownership Structure, it will be followed by a decline of -1.95 Financial Distress one-unit. Values statistically significant data results of 0.00 less significance value than 0.05, meaning that the ownership structure variables influence on Financial Distress.
Liquidity as Variable Moderation

Table 5. Liquidity as Variable Moderation

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>3.598019</td>
<td>0.050622</td>
<td>71.07588</td>
<td>0.0000</td>
</tr>
<tr>
<td>MAN_LIK</td>
<td>0.305188</td>
<td>0.384868</td>
<td>0.792969</td>
<td>0.4301</td>
</tr>
<tr>
<td>INS_LIK</td>
<td>0.041104</td>
<td>0.040818</td>
<td>1.007028</td>
<td>0.3169</td>
</tr>
</tbody>
</table>

Weighted Statistics

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>R-squared</td>
<td>0.983594</td>
<td>Mean dependent var</td>
<td>9.315427</td>
<td></td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.974991</td>
<td>S.D. dependent var</td>
<td>8.187993</td>
<td></td>
</tr>
<tr>
<td>S.E. of regression</td>
<td>0.456283</td>
<td>Sum squared resid</td>
<td>17.07195</td>
<td></td>
</tr>
<tr>
<td>F-statistic</td>
<td>114.3320</td>
<td>Durbin-Watson stat</td>
<td>2.394158</td>
<td></td>
</tr>
<tr>
<td>Prob(F-statistic)</td>
<td>0.000000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on the table above, liquidity as a moderation variable does not have a significant influence.

9. CONCLUSION AND SUGGESTION

Conclusion

Based on the results of the data analysis and discussion, it is concluded that, managerial ownership have no significant negative effect on the financial distress. However, Institutional Ownership have significant impact on the financial distress. Liquidity as a moderating variable has no significant influence towards the effect of ownership structure to financial distress.

Suggestion

This research can be used as an input for the company, especially with regard to the possibility of companies experiencing financial distress influenced directly by ownership structure or indirectly through liquidity effect.

Results of this study can contribute to the understanding of financial distress and several factors that influence it. In addition it was expected that the presence of this study could be a consideration for policy makers related to the country’s economy.
REFERENCES


