**The Influence of Good Corporate Governance, Firm Size, Sales Growth Towards Financial Distress**

(An Empirical Study on Go Public Mining Companies Listed in Indonesia Stock Exchange for the period 2015 – 2017)

A THESIS

Presented as a Partial Fulfillment of the Requirements to Obtain the Bachelor Degree in Accounting Department

By

**FEBRILIAN ARIFIN**
Student number 14312097

DEPARTMENT OF ACCOUNTING
INTERNATIONAL PROGRAM
FACULTY OF BUSINESS AND ECONOMICS
UNIVERSITAS ISLAM INDONESIA
YOGYAKARTA

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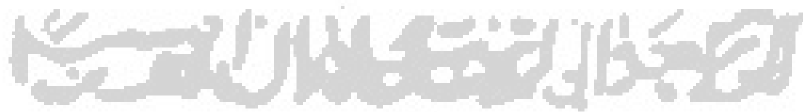


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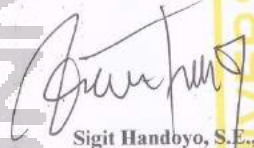

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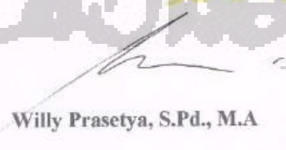

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**DECLARATION OF AUTHENTICITY**

Hereby I declare the originality of the thesis. I have not presented someone else's work to obtain my university degree, nor I have presented someone's else words, ideas or expressions without any of the acknowledgments. All quotations are cited and listed in the bibliography of the thesis. If in the future this statement is proven to be false, I am willing to accept any sanction complying with the determined regulation or its consequence.

Yogyakarta, January 08th, 2020

Febrilian Arifin

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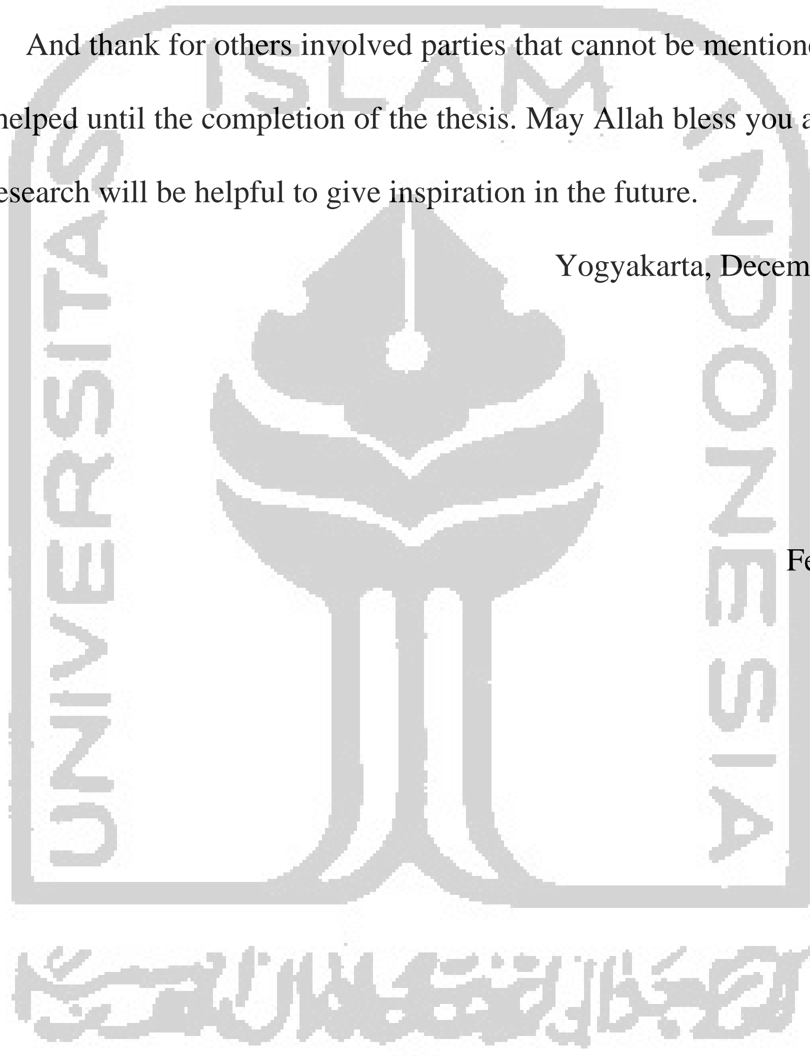

Yogyakarta, December 20th, 2019

Researcher,

Febrilian Arifin

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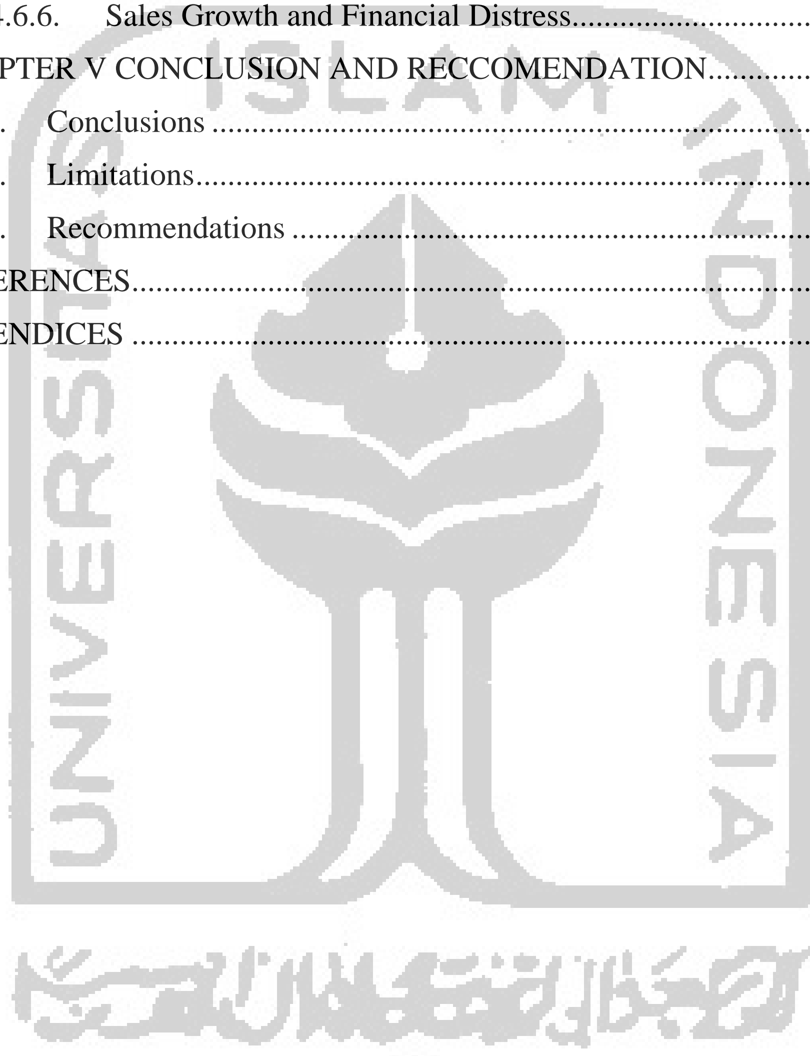

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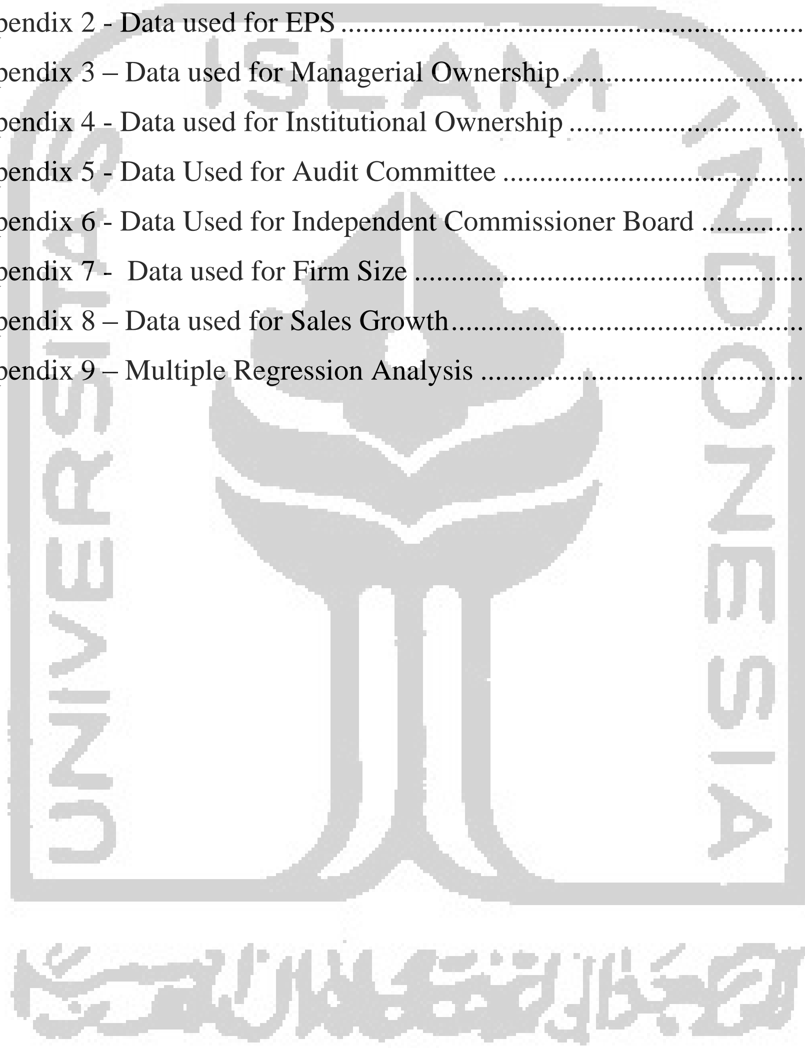

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# ABSTRACT

This study aimed to determine the influence of good corporate governance, firm size, and sales growth on the company financial distress. The type of study is an empirical study conducted on Go Public Companies listed in Indonesia Stock Exchange. The research sample was taken by a purposive sampling with the following criteria: (1) Mining companies, (2) listed in Indonesia Stock Exchange for the period 2015 – 2017, (3) Audited annual financial reports that can be accessed directly during 2015-2017, thus it was obtained 20 companies. The data used in this study collected from the audited annual financial statements of the sample company. Data analysis methods to test the hypotheses were multiple regression method. The result of this study are as follow: (1) Managerial ownership has a positive significant influence on the financial distress. It proved that, the greater managerial ownership, the greater financial distress, (2) Institutional ownership has a positive significant influence on the financial distress. It proved that, the greater institutional ownership, the greater financial distress, (3) Audit committee had no influence towards financial distress. It proved that, the greater or the smaller total audit committee, it will not affect the condition of financial distress, (4) Independent commissioner board had a significant influence towards financial distress. It proved that, rate the higher proportion of independent commissioners will be very influential to the lower the probability a company experiences financial distress, (5) Firm size had no influence towards financial distress. It proved that, the big company or newly developing of the company, it will not affect the condition of financial distress (6) Sales growth had no influence towards financial distress. It proved that, the amount of sales growth will not affect the conditions of financial distress.

Keywords : Financial distress, managerial ownership, institutional ownership, audit committee, independent commissioner board, firm size, sales growth, purposive sampling.

## ABSTRAK

Penelitian ini bertujuan untuk mengetahui pengaruh good corporate governance (GCG), ukuran perusahaan, serta pertumbuhan penjualan terhadap kesulitan keuangan. Penelitian ini merupakan penilitian empiris yang dilakukan pada perusahaan Go Public Bursa Efek Indonesia. Sampel pada penelitian ini diambil secara purposive sampling dengan kriteria: (1) Perusahaan tambang, (2) terdaftar di Bursa Efek Indonesia pada tahun 2015 – 2017, (3) laporan keuangan tahunan yang sudah diaudit dapat diakses secara langsung pada tahun 2015 – 2017, Hasil pada penelitian ini menunjukkan: (1) kepemilikan manajerial berpengaruh positif dam signifikan terhadap kesulitan keuangan. Hal ini membuktikan bahwa, jika semakin tinggi kepemilikan manajerial maka kesulitan keuangan perusahaan akan semakin tinggi; (2) kepemilikan institusional berpengaruh positif dan signifikan terhadap kesulitan keuangan. Hal ini menunjukkan bahwa, jika kepemilikan manajerial semakin tinggi maka kesulitan keuangan akan semakin tinggi; (3) komite audit tidak berpengaruh terhadap kesulitan keuangan perusahaan. Hal ini membuktikan bahwa, semakin banyak ataupun sedikit komite audit tidak akan berpengaruh dalam kesulitan keuangan; (4) komisaris independent berpengaruh negatif dan signifikan terhadap kesulitan keuangan. Hal ini membuktikan bahwa, semakin banyak komisaris independent maka kesulitan keuangan akan semakin kecil, (5) ukuran perusahaan tidak berpengaruh terhadap kesulitan keuangan. Hal ini menunjukkan bahwa, besar atau kecilnya ukuran perusahaan tidak akan berpengaruh terhadap kesulitan keuangan, (6) pertumbuhan penjualan tidak berpengaruh terhadap kesulitan keuangan. Hal ini membuktikan bahwa, semakin tinggi atau semakin rendah penjualan maka tidak akan berpengaruh terhadap kesulitan keuangan perusahaan.

*Kata kunci: Kesulitan keuangan, kepemilikan manajerial, kepemilikan institusional, komite audit, komisaris independent, ukuran perusahaan, pertumbuhan penjualan, purposive sampling.*

# CHAPTER I

# INTRODUCTION

## 1.1.Introduction

The company's financial statements are one important part of the company. It is a source of information to find out the company's financial position, changes in the company's financial position, and the condition of the company that aims to help management make corporate decisions in the future. The company's financial position can change depending on various factors, including management systems, sales of continuous loss and natural conditions that cause company assets to be damaged, as well as bad management systems or the current global economic conditions. The worst result of financial problems is bankruptcy which is stated in Law no. 1 of 1998 concerning bankruptcy.

Managers have to make strategies to deal with conditions that cause the company's financial problems and to protect the company's finances so that it does not go bankrupt. In 2007-2008, there was an economic crisis in the United States due to the housing credit crisis (subprime mortgage crisis). The subprime mortgage crisis was due to excessive borrowing because it was not controlled by the financial services authority in the United States. The global crisis in the US would impact other countries, Iceland, Japan, France, United Kingdom, Singapore, Thailand, and Indonesia. The mining company is one of the companies whose economy was disrupted. In 2008, coal prices were the US $ 119.36

per Mt, and in 2009 coal prices fell to the US $ 72.97. so that many coal companies collapsed. According to Tempo (2015), 5 coal companies in Jambi stopped operating. That was due to the decline in the world economy. According to the data, the price of coal in 2015 was only 220 thousand per ton. The price was cheaper than the price in June 2014 reaching 950 thousand per ton. According to Kompas, the results of Pricewaterhouse Coopers (PwC) research in 2016 said that as many as 40 global mining companies suffered the biggest losses in history during 2015. In that year, they suffered 27 billion US dollars or around Rp. 364.5 trillion at an exchange rate of Rp.13,500 per US dollar. In 2016, mining prices fell by 25% compared to the previous year.

Mining industries are one of the industrial sectors that gives a big contribution to national investment and export. According to the 2013 University of Indonesia Institute of Economic and Community Research (LPEM) study in Finance (2017), one of the mining companies in Indonesia, PT Freeport Indonesia, contributed 91% of Mimika Regency's GRDP, 37.5% of Papua Province's GRDP, and 0,8% of Indonesia's GDP. It has a great contribution to the growth of national and international industries. According to available data, one of the causes of a company's bankruptcy is financial distress.

Financial distress is declining in financial condition as shown in negative profit or even bankruptcy. According to Platt and Platt (2002), financial distress is less precise than the legal actions that define

proceedings such as bankruptcy or liquidation. Hanifah and Purwanto (2013) stated that Financial distress is the stage of the decline in financial conditions that occur before the occurrence of bankruptcy or liquidation. Financial distress can start from liquidity difficulties (short term) as an indication of the lightest financial distress to bankruptcy statements which are the most severe financial distress. According to Brahmana on Hidayat and Merianto (2014), A company can be categorized as experiencing financial distress when the company has a performance that shows a negative operating profit, negative net income, negative equity book value, and the company that merges. Platt and Platt (2002) stated the condition when financial distress occurs:

1. Giving information to the manager to do forestall problems before financial distress occur
2. The manager can take a merger or takeover for better company conditions. In case financial distress occur
3. The information can give early warning to the manager of possible future bankruptcy

According to Brigham and Daves in Hidayat and Merianto (2014), Financial distress occurs in a series of errors, inadequate decision making and interconnected weaknesses that can contribute directly or indirectly to management and lack of efforts to monitor the company's financial condition so that its use is not following what is needed. To predict financial distress, the company needs corporate governance.

According to the Organization for Economic Corporation and Development (OECD), corporate governance is a structure to setting company goals, for achieving these objectives and determining supervision of company performance. Financial distress is influenced by two factors, internal and external.

Internal factor influencing financial distress is good corporate governance (GCG). There are four indicators of good corporate governance: Institutional ownership, Managerial ownership, Audit committee, Independent commissioner board. Institutional ownership is the proportion of stock owned by an institution. The higher institutional ownership (>5%) shows the ability to control the management and the more efficient the utilization of assets, the more potential of financial distress can be minimized. Triwahyuningtias and Muharam (2012) and Hanifah and Purwanto (2013) stated that institutional ownership gives a significant impact of financial distress, while Fathonah (2016) and Ananto et al (2017) stated that institutional ownership does not give a significant impact of financial distress. Managerial ownership is the proportion of company ownership by management (directors or commissioners). Thus, the greater the responsibility of management in managing the company. The greater ownership by management, potential financial distress can be minimized. Kurniasanti and Musdholifah (2018) stated that managerial ownership does not impact financial distress, while Fathonah (2016) stated managerial ownership give a positive impact on financial distress.

The audit committee has an impact on financial distress. Wolnizer in Fathonah (2016) revealed that the audit committee functions specifically can be identified into three interrelated aspects, namely relating to accounting and financial reporting, auditors and auditing, and company organizations.

According to Bisnis.com (2015), In 2015, PT. ANTAM (Persero) as the best company in the ASEAN Capital Market Forum (ACMF) in the implementation of the Good Corporate Governance Award. According to Kontan (2018), the implementation of Good Corporate Governance in ANTAM is based on several parameters: (1) BUMN Scorecard, (2) OJK Open Corporate Governance, (3) ASEAN Corporate Governance Scorecard, (4) ASX Corporate Governance Principles and Recommendation According to PT. ANTAM website, PT. ANTAM got A (very good) in the mining category and Special award of all categories. Johan NB Nababan as the director of PT. ANTAM realizes that Good Corporate Governance is important in the operation of the company.

## 1.2.Problem Identification

Financial distress can be experienced by every company, namely small companies and large companies. Financial Distress is caused by several factors as shown in the background above. Financial distress can be influenced by internal factors or external factors.

There have been many studies on financial distress, but because the results are inconsistent in each study and still raises many questions for

researchers about what factors affect the occurrence of financial distress in the company.

### 1.3.Problem Formulation

Therefore, based on the description, the problem taken in this study is to find out whether non-financial variables are institutional ownership, managerial ownership, audit committee, Independent Commissioner Board, firm size, and sales growth. Thus, the issues in this study are stated as follows:

1. Does institutional ownership influence financial distress in mining companies listed in Indonesia Stock Exchange?
2. Does managerial ownership influence financial distress in mining companies listed in Indonesia Stock Exchange?
3. Does audit committee influence financial distress in mining companies listed in Indonesia Stock Exchange?
4. Does independent commissioner board influence financial distress in mining companies listed in Indonesia Stock Exchange?
5. Does firm size influence financial distress in mining companies listed in Indonesia Stock Exchange?
6. Does sales growth influence financial distress in mining companies listed in Indonesia Stock Exchange?

## 1.4.Research Objectives

The objectives of this study is to:

1. To analyze and examine influence institutional ownership on financial distress
2. To analyze and examine influence managerial ownership on financial distress
3. To analyze and examine influence audit committee on financial distress
4. To analyze and examine influence independent commissioner board on financial distress
5. To analyze and examine influence firm size on financial distress
6. To analyze and examine influence sales growth on financial distress

## 1.5.Research Contributions

### 1.5.1. Theoretical Contributions

To contribute and enhance in knowledge especially in accounting behavior sector as a reference for further research. And contributing to companies to be better in understanding about financial distress on how to avoid financial distress. Thus, it is expected that quality of the companies in the future will increasingly understand about avoiding financial distress to keep the financial of company always increased.

### 1.5.2. Practical Contributions

1. Contribute the improvement theory related to financial distress
2. Contribute additional evidence in the accounting literature, regarding factors affecting the financial distress
3. Contribute as a guidance for management about financial distress. Thus, management understand about the factors which affecting financial distress. So, the companies can avoid financial distress.

## 1.6.Systematic of Writing

There are five chapters of discussion and added with references and attachments. The systematics of writing are as follows:

**CHAPTER I: INTRODUCTION**

In this chapter, it is explained the background of the research along with the problem formulation, objectives, research contribution and the systematic of writing.

**CHAPTER II: REVIEW OF RELATED LITERATURE**

The second chapter explained about theoretical review related with the research previously, hypothesis formulation, and research model.

**CHAPTER III: RESEARCH METHOD**

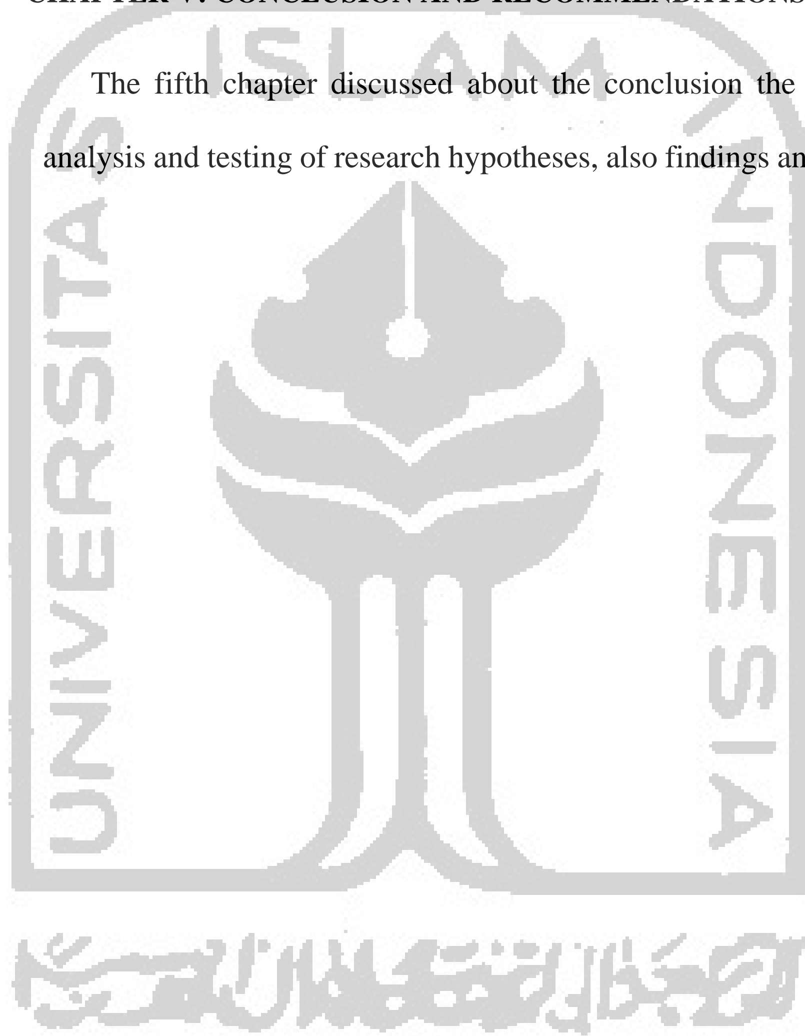
The third chapter discussed the population and sample, data collection, data analysis method, and hypothesis testing.

**CHAPTER IV: DATA ANALYSIS AND DISCUSSIONS**

This chapter explained the results of data analysis used in this study, also described testing of the research hypothesis.

**CHAPTER V: CONCLUSION AND RECOMMENDATIONS**

The fifth chapter discussed about the conclusion the result of data analysis and testing of research hypotheses, also findings and suggestions.



# CHAPTER II

# REVIEW OF RELATED LITERATURE

## 2.1.Theoretical Review

### 2.1.1. Agency Theory

According to the agency theory, the separation between ownership and management of a company can bring to a conflict. The occurrence of agency conflict is because, by the related parties, namely the principal (who gives the contract or shareholders) and the agent (who receives the contract and manages the principal fund) has conflicting interests (Bodroastuti,2009). According Jensen and Meckling (1976) agency relationship is a contract under which one or more persons (the principal(s)) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent. The purpose of the agency theory is to create efficiency and effectiveness to design the most cost-effective information systems.

To achieve company goals, the principal instructs the agent to manage the company as principal wants, but sometimes management as the agent does not do as the principal instructed. The principal can limit the divergences from his interest by monitoring costs designed to limit the activities of the agent. In some situation, the principal will pay the agent to avoid the agent does not take certain actions which harm the principal and to ensure the principal will be compensated if he does take such

actions. Agents will be more concerned with achieving better results than always obeying the orders of principals, thus there is agency conflict. Agency conflicts that arise between various parties that have various interests can complicate and hinder the company from achieving positive performance.

One of the causes of agency problems is the existence of Asymmetric Information. Asymmetric information is a condition when the agent and principle do not understand their decision. Furthermore, if the agent has information which supposed to inform to principal to take a decision, but the agent only keeps by themselves. Thus, agents and principals cannot decide by one of the two. There are 2 problems caused by information asymmetry, namely adverse selection, and moral hazard. Moral hazard is a problem that arises if the agent does not carry out things agreed upon in the employment contract. It occurs because of inappropriate decision making by the management on controlling the financial condition so then the use of money is not following company needs so financial distress will occur. Managers have negative impacts on the company because managers make decisions that are not based on the interest of shareholders. While Adverse selection is a condition where the principal cannot know whether a decision is taken by the agent is based on the information that has been obtained or occurs as an omission in the task. The managers try to manipulate the information that will provide to investors. Thus, the investors are not convinced with the quality of the

company because of not reliable and accountable information provided by managers then investors will give stock at a low price.

Good corporate governance is the tool for minimizing the conflict between agents and principals. Good corporate governance will regulate and control the company for adding the values to the company then interested parties or stakeholders can change the behavior of management. And good corporate governance will overcome the lack of information between agent and principal. Good corporate governance will give an impact on financial distress. The management better manages the company, financial distress will decline. While, if management cannot manage the company, financial distress will occur.

### 2.1.2. Financial Distress

Financial distress is a decline in financial condition as shown in negative profit or even bankruptcy. According to Platt and Platt (2002), financial distress is less precise than the legal actions that define proceedings such as bankruptcy or liquidation. Financial distress is a situation where cash flow is insufficient to cover current obligations (Altman, 1998). These obligations can include unpaid debts to suppliers and employees, actual or potential damages from obligation, and missed principal or interest payments under borrowing agreements (default). Technical default, the violation of debt covenant other than one specifying principal and interest payments, can be warning that distress is imminent. Brigham and Daves, (2002) they conclude that a company experiencing

financial distress is when the company's business conditions deteriorate to the point where the company cannot fulfill its financial obligations that begin when the company cannot meet the payment schedule or when cash flow projections indicate that the company will soon not fulfill its obligations. Elloumi and Gueyie (2001) Niarachma (2012) stated Companies that have experienced negative earnings per share (EPS) in the long term are included in financial distress.

Financial distress starts from liquidity difficulties (short term) as an indication of the lightest financial distress. And to know whether financial distress occurs when the company giving the negative operating profit, negative sales profit, merger, even bankruptcy.

There are several conditions of companies experiencing financial distress, as defined from the previous research by Emery & Finnerty (1997); Brigham (1997); and Gitman (1994) in Suciati (2008) cited by Niarachma (2012) as follows:

1. **Economic Failure**

   This condition happens if the company:

   1. It does not have enough income to cover the cost of production as well as its cost of capital
   2. The rate of return is lower than the level of the capital investment that can be generated from an outside party, e.g the deposit rate is greater than the return of investment (ROI)

3. The rate of return is lower than the cost of capital that needs to be paid by the company. The rate of return here is increasing the applicable credit interest rate.

**2. Business Failure**

The condition that represents a company or business which has a negative or low on their return of investment (ROI). In other words, when the company suffers an operating loss continuously, then the market value of the company will decrease. So, the cost of capital is larger than the return that supposed to be a company get. And it can be concluded the company is experiencing failure.

**3. In Default**

A company is considered in default if it is violated in terms of the loan agreement. Two different terms related to this condition as follows:

**a. Technical Default**

This condition happens if the debtor, in this case, the company, violates the loan agreement. The company experiencing a technical default does not always lead to a state of bankruptcy because the company is still able to continue its operation if the company tries to renegotiate with the debtor.

**b. Payment Default**

When a company is declared to be in payment default condition, they fail to fulfill the obligation to pay the interest or loan. The failure here is not the company unable to pay the debt, but the company is late to pay its obligation during its due date even though only passing one day. If the agreement is equipped with a grace period agreement (extension of the period), then the payment default condition occurs after that grace period.

**4. Insolvent**

Insolvent condition is a condition where the company is unable to fulfill its short-term obligations caused by the liquidity deficiency or they are unable to obtain net profit (loss)

**a. Technical Insolvency**

The condition where the company can not pay its liabilities during the maturity date because the company has a cash shortage. On the other words, a condition where the company's total asset is still greater than its total liabilities which means the company has problem on liquidity crisis. Technical insolvency is a temporary condition if the company can convert its assets in a certain period to increase cash to pay its obligation so the company will survive or able to get out of the threat of failure.

**b. Bankruptcy Insolvency**

The condition where the company has the book value from total liabilities is greater than the market value from total assets so the value of the company is negative. It means the values of assets are insufficient to pay back its debts. Bankruptcy insolvency also gives an indication of financial distress which is more serious than technical insolvency so it can be concluded as economic failure which leads to the liquidation of the company.

**5. Bankruptcy**

This condition is where the company already has a negative capital. The creditors can not do claims to the company unless the property of the company has been able to be liquidated. Making a declaration of bankruptcy is giving information to the stakeholders where the company is already bankrupt.

According to Almilia and Kristajadi (2003) cited in Niarachma (2012), the prediction of financial distress becomes the attention of many parties. The parties that use the model are:

**a. Lenders**

Research related to the prediction of financial distress has relevance to the institution lenders, both to decide whether to grant a loan and determine policies to monitor loan that has been granted.

**b. Investors**

The prediction model of financial distress can help investors during the assessment of the possible problem of a company in making payments of loans and interest.

**c. Regulators**

Regulators institution has the responsibility to monitor the ability of a company in paying debt and stabilizing the company. This led to the need for an applicable model to determine those aspects.

**d. Government**

The financial prediction model is also important for the government to formulate antitrust regulation.

**e. Auditor**

The financial distress prediction model is a tool for the auditor in making a going concern value of a company.

### 2.1.3. Good Corporate Governance

To overcome the economic crisis such as financial distress in Indonesia developing corporate governance. Good Corporate Governance (GCG) is needed to encourage the creation of an efficient, transparent and consistent market with laws and regulations. Corporate Governance (CG) was introduced by the Cadbury Committee in 1992 in a report known as the Cadbury Report. According to the Organization of Economic Cooperation and Development (OECD), GCG is a group of relationships

between the management of the company, the board, shareholders, and other parties that have shares in the company. Good corporate governance is a system to create good corporate management to raise value-added for stakeholders. And to achieve GCG in a company, there are five good corporate governance principles:

1. Transparency

To keep the objectivity of the company, Company has to give relevant information and easy to be accessed for taking decisions by stakeholders in the exact time that have been agreed between managers and stakeholders. Financial reports, company position reports, and institution ownership must be included in that information. Two indicators of transparency, information and company policies.

2. Accountability

Accountability is the one principle of corporate governance. Accountability is about the responsibilities of the managers as a result of managing the company and the performance of the company. The company has to give the information of structure, and company internal control as transparency and fairly. Furthermore, the company needs to be managed, measured, and the interest of shareholders.

3. Responsibility

Companies must comply with laws and regulations and carry out responsibility for society and the environment so that it can be maintained long-term business continuity and recognition as a good corporate citizen.

4. Independency

To achieve good corporate governance, the company must be managed independently and professionally without regulation which does not suitable for the company so each company does not intimidate by others. Independency needs to avoid conflict between stakeholders. The decision that made me need to be objective without interfered with others.

5. Fairness

Treatment fair and equal in fulfilling rights stakeholders arising from the agreement and applicable laws and regulations.

#### 2.1.3.1. Managerial Ownership

Managerial ownership is the proportion of company ownership by management. In other words, managerial ownership is the percentage of share owned by the manager or director of the company. Managerial ownership is used to know how many shares that owned by the management in the certain company.

Jensen and Meckling (2017) stated that the greater the proportion of ownership by management, it will decline the using of resources as well as declining agency cost because of the different opinions between agent and principal and also the greater the responsibility of management in managing the company. This happens because managers who have involvement in the company through managerial ownership will also feel they own the company (sense of belonging) so that all decisions taken by managers will be carried out more carefully considering all the

consequences that occur due to decisions taken will also affect the manager. Therefore, management who owns shares in the company tends to develop strategies to improve company performance, especially long-term corporate performance such as integrating company with another company that considering improving long term sales. Thus, managerial ownership can increase the effectiveness of management working as well as decreasing financial distress that can make damage the company.

#### 2.1.3.2. Institutional Ownership

Institutional ownership the proportion of stock owned by the institution. Several shareholders which are foreign companies, BUMN, insurance, bank or others that have big control over management and giving motivation for management to the optimization of company value so it will increase company performance and decrease financial distress. According to Setiawan et al (2017) on Kurniasati et al (2018), Institutional ownership is the total shares owned by an institution. Bodroastuti (2017), that institutional ownership will support control more optimal towards management's performance. It is because stock ownership represents a source of power that can be used to support the existence of management so with institutional ownership, agency cost can be minimized.

The higher institutional ownership shows the ability to control the management and the more efficient the utilization of assets so the potential of financial distress can be minimized.

#### 2.1.3.3. Audit Committee

Ananto et al (2017) Audit Committee is a committee which has responsibilities to supervise financial report, control external audit, and also control the internal control system which can decrease the misconduct by the management. Audit committee competency is one factor that influences company performance. Audit committee help management about financial report and explanation, internal control system, and independent auditor.

Based on the Decision of the Directors of the Jakarta Stock Exchange No. Kep-315 / BEJ / 06/2000 stated that the membership of the audited committee at least 3 (three) members, the independent commissioner of the company and also as chairman of the committee audited, and another member is independent parties where at least one of them have the ability in the field of accounting and finance.

#### 2.1.3.4. Independent Commissioner Board

Independent commissioner as *controveiling power,* which means the existence of an independent commissioner as supervisor of the long-term strategies decided by commissioner board for the future company. According to Kurniasati et al (2018), the Independent commissioner board is a board that has to supervise the company that is headed by the board of directors. An independent commissioner board is established to control and supervise the directors of the company so it will

raise appropriate decisions and keep the company safe from the possibility of financial distress.

### 2.1.4. Firm Size

Firm size describes assets owned by the company in a certain period. According to Rajan and Zingales (1995) in Putri and Merkusiwati (2014), Companies with large total assets indicate that the company is easier to do diversification because in this stage the company's cash flow has been positive and it is considered to have good prospects in a relatively long period. Besides, this also reflects that companies are relatively more stable and able to generate profits than companies with small total assets. The companies with small total assets indicated financial distress.

### 2.1.5. Sales Growth

The main goal of companies is to maximize the revenue and always increase the sales, in both the short and long-term (Baumol, 1959) cited by (Mohd Sam & Hoshino, 2013).

Sales growth affecting firm growth in the next future. Every company has to keep their finance in good condition in avoiding financial distress. Predicting financial distress is important for the company in order to preparing the company to control the finance in safe condition when facing financial distress. Sales growth will be showing the percentage of entire sales and previous sales

Bigger sales is better because the sales increase from year to year. It shows company activities have a good mark and company can

continuing their activities as well as decreasing the risk of financial distress.

## 2.2.Review of Previous Research Results

Some previous research have previously researched some studies related to good corporate governance, firm size, and sales growth towards financial distress.

Nindita & Moeljadi & Indrawati (2014) did a study entitled "Prediction on Financial Distress of Mining Companies Listed in BEI using Financial Variables and Non-Financial Variables". This study was conducted to examine if financial variables and non-financial variables can be used to predict the condition of financial distress in public mining companies listed in Bursa Efek Indonesia during period 2008-2009. The study population was all public mining companies listed in Bursa Efek Indonesia and there is no delisting during research period. The total sample used in this study were 13 companies. The financial variables used were current ratio, cash ratio, debt ratio, ROA, day sales in receivables ratio. This study used saturated sampling technique. The result of this study was, (i) current ratio, cash ratio, and debt ratio have significant effect on negative correlation coefficient in predicting financial distress of companies. (ii) non-financial ratios, managerial and institutional ownership do not give significant effect in predicting financial distress of companies.

Fathonah (2016) entitled “Pengaruh Penerapan Good Corporate Governance Terhadap Financial Distress”. This study aimed to determine the impact of good corporate governance towards financial distress of property, real estate, construction companies listed in Bursa Efek Indonesia on 2013. The indicators which are institutional ownership, managerial ownership, Independent Commissioner Board, and Audit Committee. This study used purposive sampling and analyze using regression. The result of this study which are (i) independent commissioner board has significant negative effect towards financial distress. (ii) Institutional ownership has negative effect on financial distress. (iii) Managerial ownership has positive effect on financial distress. (iv) audit committee has positive effect on financial distress but not significant.

Sastriana & Fuad (2013) did a research entitled “Pengaruh Corporate Governance and Firm Size Terhadap Perusahaan Yang Mengalami Kesulitan Keuangan (Financial Distress)”. This study aimed to examine the effect of corporate governance and firm size for firms experiencing financial distress at non-financial companies. The variables that used are: the number of board of directors, the number of independent board, institutional ownership, managerial ownership, and the number of audit committee members, and firm size. The research uses all firms that listed in Indonesia Stock Exchange (IDX) and the Indonesian Capital Market Directory (ICMD) period 2009 – 2012. The data were analyzed

using logistic regression model. And the result of this research showed the variable number of board of directors and audit committee members are significantly influence the company experiencing financial distress. While independent board, institutional ownership, managerial ownership and firm size do not have significant effect of companies financial distress.

Jamal & Shah (2017) entitled “The Impact of Corporate Governance on the Financial Distress: Evidence from Pakistani Listed Companies”. The study intends to assess how corporate governance affects the financial distress in non-financial listed companies in Pakistan. It used sample of 53 companies was obtained from non-financial institutes listed in Pakistani Stock Exchange. To analyzed used regression model to explain these variables which are size of board, composition of board, audit committee independence and duality of CEO. And the findings showed the size of board, composition of board and CEO duality has positive effect on companies.

Witiastuti & Suryandari (2016) did a research entitled “The Influence of Good Corporate Governance Mechanism on the Possibility of Financial Distress”. This research aimed to determine the effect of good corporate governance mechanism on the possibility of financial distress. In this research, the variables used managerial ownership, institutional ownership and independent commissioner. The sample contains 121 manufacturing companies listed on Indonesia Stock Exchange (IDX) period 2011-2013. Purposive sampling method was use to selecting

sample for 22 companies, so the unit of analysis was 66. The method of data analysis used descriptive statistics and logistic regression. The findings are (i) the managerial ownership, institutional ownership and independent commissioner do not influence significantly on financial distress.

Pramudena (2017) did a study which has title "The Impact of Good Corporate Governance on Financial Distress in the Consumer Goods Sector". The success or failure depends on the corporate governance of the company. So this study aimed to identify the relationship between the existence of good corporate governance and the profitability of financial distress. This study used secondary data that obtained from annual report period 2009 – 2014. The samples are consumer goods manufacturing companies that are listed on Indonesia Stock Exchange (IDX). 10 samples were use. The method of analysis used multiple linear regression. The result of this research that institutional ownership and managerial ownership adversely affect the possibility of financial distress. While, the proportion of commissioners and the number of board directors have positive effect on possibility of financial distress.

Murhadi & Tanugara & Sutejo (2018) entitled "The Influence of Good Corporate Governance on Financial Distress" which aimed to analyze the influence of good corporate governance (GCG) and to create a bankruptcy prediction model in financial distress. The sample used non-financial sector companies listed on Indonesia Stock Exchange (IDX)

period 2011-2015. This study used quantitative by using logistic regression model. The final sample used were 337 companies. The findings of this study are the proportion of independent outside directors, audit opinion, size, and ownership are significant of financial distress.

Ananto, Mustika, Handayani (2017) entitled "Pengaruh Good Corporate Governance (GCG), Leverage, Profitabilitas dan Ukuran Perusahaan Terhadap Financial Distress Pada Perusahaan Barang Konsumsi yang Terdaftar di Bursa Efek Indonesia. This study was conducted to examine the effect of Good Corporate Governance (GCG), Leverage, Profitability and Size of the Company's Financial Distress in Consumer Goods Company listed in Indonesia Stock Exchange. The indicator using Model Modified Altman Z Score and the method to hypothesis testing using multiple linear regression test. The sample were consumer goods company listed in Indonesia Stock Exchange from 2011-2015. Based on criteria, the sample obtained 22 companies. The findings showed that profitability and leverage affect financial distress. Meanwhile, institutional ownership, board size, the size of board of directors, independent board size, the size of the audit committee and the size of the company does not affect financial distress.

Rianti and Winwinyadiati (2018), did the research entitled " The Influence Firm Size on Financial Distress: A Research on Agricultural Companies Listed in Indonesia Stock Exchange. The purpose is to analysis the influence of firm size on financial distress in agricultural companies

listed in Indonesia Stock Exchange period 2012-2014. The proxy of financial distress and firm size that used were Altman Z's score, net profit margin, cash ratio and natural logarithm total assets. The sample obtained from Indonesia Capital Market Directory (ICMD) from 2012-2014. 18 companies were obtained as a sample. The method used multiple regression analysis. And the result is showed that firm size has effect but not significant towards financial distress.

Hidayat & Meiranto (2014) did the study entitled "Prediksi Financial Distress Perusahaan Manufaktur di Indonesia. This study aimed to investigate the effect of financial ratios to predict probability of financial distress in the company. The indicators that used were leverage ratio, liquidity ratio, activity ratio, and profitability ratio. The population using companies listed on the Indonesian Stock Exchange period 2008 – 2012. Based on purposive sampling method, the samples obtained 59 companies in the period 2008 – 2012. To measure the criteria of financial distress by using interest coverage ratio and analyzed using logistic regression. The result showed that leverage ratio (debt ratio), liquidity ratio (current ratio), and activity ratio (total asset turnover ratio) were financial ratios have significant value to predict financial distress in company, while profitability ratio (return on asset) is only financial ratios which not significant to predict financial distress in company.

Triwahyuningtias & Muharam entitled "Analisis Pengaruh Struktur Kepemilikan, Ukuran Dewan, Komisaris Independen, Likuiditas

dan Leverage Terhadap Terjadinya Kondisi Financial Distress (Studi Pada Perusahaan Manufaktur Yang Terdaftar Di Bursa Efek Indonesia Tahun 2008 – 2010). The purpose of his research is to prove the effect of ownership structure, board size, independent board of commissioners, liquidity and laverage with financial distress. The population was come from manufacturing sector at Indonesia Stock Exchange which published in financial report from 2008 – 2010. And the sample obtained 34 companies and obtained 102 data observation. This research used logistic regression as an analyzing instrument. The method that used consist of descriptive statistic, fit model test which used G test, Hosmer & Lemeshow's test and Cox & Snell;s R Square and Nagelkerke R Square and to test the coefficient of variables this study used wald test. The findings of this study showed that ownership structure, director size, liquidity and leverage have significant impact on the probability of firm experienced financial distressed. This research failed to prove effect of commissioners' size and independent board of commissioners with probability of experiencing financial distress.

Kurniasanti & Musdholifah (2018) entitled "Pengaruh Corporate Governance, Rasio Keuangan, Ukuran Perusahaan dan Makroekonomi Terhadap Financial Distress (Studi Pada Perusahaan Sektor Pertambangan yang Terdaftar di Bursa Efek Indonesia Tahun 2012 – 2016)". This study aimed to determine the factors that affect the financial distress companies in Indonesia mining sector. the dependent variables

which are board of commissioners, managerial ownership, institutional ownership, audit committee, and independent commissioner, financial ratios (profitability, leverage, liquidity, and efficiency) firm size. The sample using 17 Indonesian mining sectors selected using purposive sampling period 2012 – 2016. Data analysis technique using logistic regression. The result showed return on asset and asset turnover negatively asset on financial distress. While, board of commissioners, managerial ownership, institutional ownership, audit committee, independent commissioner, leverage, liquidity, firm size, inflation and interest does not affect on financial distress.

Hanifah & Purwanto (2013) entitled "Pengaruh Struktur Corporate Governance dan Financial Indicators Terhadap Kondisi Financial Distress". This study is to examine the impact of corporate governance structure and financial indicators financial distress. The indicators that used are size of the board of directors, the board size, independent commissioners, managerial ownership, institutional ownership, and the size of the audit committee and the financial indicators use liquidity, leverage, profitability, and operating capacity. The population from the manufacturing companies listed in Indonesia Stock Exchange period 2009 – 2011. Based on purposive sampling method, the samples obtained 45 companies' period 2009 – 2011 thus obtained 135 observations. This study used logistic regression as a data analysis tool. The result of the study showed the director size, managerial ownership,

institutional ownership, leverage and operating capacity have significant impact in financial distress.

Bodroastuti (2009) entitled "The Influence of Corporate Governance Structure to Financial Distress". This study was to examine the most influence variables of corporate governance structure on financial distress. The samples of 19 companies listed in Indonesia Stock Exchange. Thus, by using 95 observations during 2003 – 2007. It chosen by purposive sampling. The result of research showed that variables of corporate governance structure that influenced financial distress were the number of board of directors and the number of commissioners, and other not influenced.

**Overall, the previous research shown in the Table 2.1 below**

**Table 2.1**

| No | Research Title & Researcher | Variable | Method | Result |
|---|---|---|---|---|
| 1 | Nindita & Moeljadi & Indrawati (2014) "Prediction on Financial Distress of Mining Companies | **Independent Variable:** current ratio, cash ratio, debt ratio, ROA, day sales in receivables ratio | Logistic Regression Analysis | The result of this study were, (i) current ratio, cash ratio, and debt ratio have significant effect on |

|  |  |  |  |  |
|---|---|---|---|---|
|  | Listed in BEI using Financial Variables and Non-Financial Variables". | **Dependent Variable:** Financial Distress |  | negative correlation coefficient in predicting financial distress of companies. (ii) non-financial ratios, managerial and institutional ownership do not give significant effect in predicting financial distress of companies. |
| 2 | Fathonah (2016) entitled "Pengaruh | **Independent Variable:** | Simple Regression Analysis | (i) independent commissioner board has |

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|---|---|---|---|---|
| | Penerapan Good Corporate Governance Terhadap Financial Distress". | institutional ownership, managerial ownership, Independent Commissioner Board, and Audit Committee. **Dependent Variable:** Financial Distress | | significant negative effect towards financial distress. (ii) Institutional ownership has negative effect on financial distress. (iii) Managerial ownership has positive effect on financial distress. (iv) audit committee has positive effect on financial distress but not significant. |

| 3 | Sastriana & Fuad (2013) “Pengaruh Corporate Governance and Firm Size Terhadap Perusahaan Yang Mengalami Kesulitan Keuangan (Financial Distress) | **Independent Variable:** the number of board of directors, the number of independent board, institutional ownership, managerial ownership, and the number of audit committee members, and firm size. **Dependent Variable:** Financial Distress | Logistic Regression Analysis | the variable number of board of directors and audit committee members are significantly influence the company experiencing financial distress. While independent board, institutional ownership, managerial ownership and firm size do not have significant effect of |
|---|---|---|---|---|

| | | | | companies' financial distress |
|---|---|---|---|---|
| 4 | Jamal & Shah (2017) entitled "The Impact of Corporate Governance on the Financial Distress: Evidence from Pakistani Listed Companies". | **Independent Variable:** size of board, composition of board, audit committee independence and duality of CEO. **Dependent Variable:** Financial Distress | Logistic Regression Analysis | the size of board, composition of board and CEO duality has positive effect on companies. |
| 5 | Witiastuti & Suryandari (2016) did a research entitled "The Influence of Good Corporate | **Independent Variable:** managerial ownership, institutional ownership and | descriptive statistics and logistic regression. | the managerial ownership, institutional ownership and independent commissioner do not |

| | | | | |
|---|---|---|---|---|
| | Governance Mechanism on the Possibility of Financial Distress". | independent commissioner. **Dependent Variable:** Financial Distress | | influence significantly on financial distress. |
| 6 | Pramudena (2017) "The Impact of Good Corporate Governance on Financial Distress in the Consumer Goods Sector". | **Independent Variable:** institutional ownership, managerial ownership, the proportion of commissioners and the number of board directors. **Dependent Variable:** Financial Distress | Multiple linear regression | institutional ownership and managerial ownership adversely affect the possibility of financial distress. While, the proportion of commissioners and the number of board directors have positive effect on |

| | | | | possibility of financial distress. |
|---|---|---|---|---|
| 7 | Murhadi & Tanugara & Sutejo (2018) entitled “The Influence of Good Corporate Governance on Financial Distress. | **Independent Variable:** the proportion of independent outside directors, audit opinion, size, and ownership **Dependent Variable:** Financial Distress | Logistic Regression Analysis | The findings of this study are the proportion of independent outside directors, audit opinion, size, and ownership are significant of financial distress. |
| 8 | Ananto, Mustika, Handayani (2017) entitled “Pengaruh Good Corporate Governance | **Independent Variable:** Good Corporate Governance (GCG), Leverage, | Multiple Linear Regression test | The findings showed that profitability and leverage affect financial distress. Meanwhile, |

| | (GCG), Leverage, Profitabilitas dan Ukuran Perusahaan Terhadap Financial Distress Pada Perusahaan Barang Konsumsi yang Terdaftar di Bursa Efek Indonesia. | Profitability and Size of the Company's **Dependent Variablel:** Financial Distress | | institutional ownership, board size, the size of boatd of directors, independent board size, the size of the audit committee and the size of the company does not affect financial distress. |
|---|---|---|---|---|
| 9 | Rianti and Winwinyadiati (2018), The Influence Firm Size on Financial Distress: A | **Independent Variable:** Firm Size **Dependent Variable:** Financial Distress | Multiple Regression analysis | And the result is showed that firm size has effect but not significant towards |

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|---|---|---|---|---|
| | Research on Agricultural Companies Listed in Indonesia Stock Exchange. | | | financial distress. |
| 10 | Hidayat & Meiranto (2014) "Prediksi Financial Distress Perusahaan Manufaktur di Indonesia. | **Independent variable:** leverage ratio, liquidity ratio, activity ratio, and profitability ratio. **Dependent variable:** Financial Distress | interest coverage ratio and analyzed using logistic regression . | The result showed that leverage ratio (debt ratio), liquidity ratio (current ratio), and activity ratio (total asset turnover ratio) were financial ratios have significant value to predict financial distress in company, |

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|---|---|---|---|---|
| | | | | while profitability ratio (return on asset) is only financial ratios which not significant to predict financial distress in company. |
| 11 | Triwahyuningtias & Muharam entitled “Analisis Pengaruh Struktur Kepemilikan, Ukuran Dewan, Komisaris Independen, Likuiditas dan Leverage Terhadap | **Independent variable:** ownership structure, board size, independent board of commissioners, liquidity and laverage **Dependent variable:** | Logistic regression analysis | The findings of this study showed that ownership structure, director size, liquidity and leverage have significant impact on the probability of firm |

| | | | | |
|---|---|---|---|---|
| | Terjadinya Kondisi Financial Distress (Studi Pada Perusahaan Manufaktur Yang Terdaftar Di Bursa Efek Indonesia Tahun 2008 – 2010). | Financial Distress | | experienced financial distressed. This research failed to prove effect of commissioners size and independent board of commissioners with probability of experiencing financial distress. |
| 12 | Kurniasanti & Musdholifah (2018) "Pengaruh Corporate Governance, Rasio Keuangan, | **Independent variable:** board of commissioners, managerial ownership, institutional | Logistic regression analysis | The result showed return on asset and asset turnover negatively asset on financial |

| | | | | |
|---|---|---|---|---|
| | Ukuran Perusahaan dan Makroekonomi Terhadap Financial Distress (Studi Pada Perusahaan Sektor Pertambangan yang Terdaftar di Bursa Efek Indonesia Tahun 2012 – 2016)". | ownership, audit committee, and independent commissioner, financial ratios (profitability, leverage, liquidity, and efficiency) firm size. **Dependent variable:** Financial distress | | distress. While, board of commisioners, managerial ownership, institutional ownership, audit committee, independent commissioner, leverage, liquidity, firm size, inflation and interest does not affect on financial distress. |
| 13 | Hanifah & Purwanto (2013) "Pengaruh Struktur | **Independent variable:** size of the board of | Logistic regression analysis | The result of the study showed the director size, |

| | | | | |
|---|---|---|---|---|
| | Corporate Governance dan Financial Indicators Terhadap Kondisi Financial Distress". This study is to examine the impact of corporate governance structure and financial indicators financial distress. The indicators that used are size of the board of directors, the board size, | directors, the board size, independent commissioners , managerial ownership, institutional ownership, and the size of the audit committee and **the financial indicators:** liquidity, leverage, profitability, and operating capacity. **Dependent variable:** Financial distress | | managerial ownership, institutional ownership, leverage and operating capacity have significant impact in financial distress. |

| | | | | |
|---|---|---|---|---|
| | independent commissioners, managerial ownership, institutional ownership, and the size of the audit committee and the financial indicators use liquidity, leverage, profitability, and operating capacity. | | | |
| 14 | Bodroastuti (2009) entitled "The Influence of Corporate Governance Structure to Financial | **Independent variable:** Good corporate governance **Dependent variable:** | Logistic regression analysis | The result of research showed that variables of corporate governance structure that |

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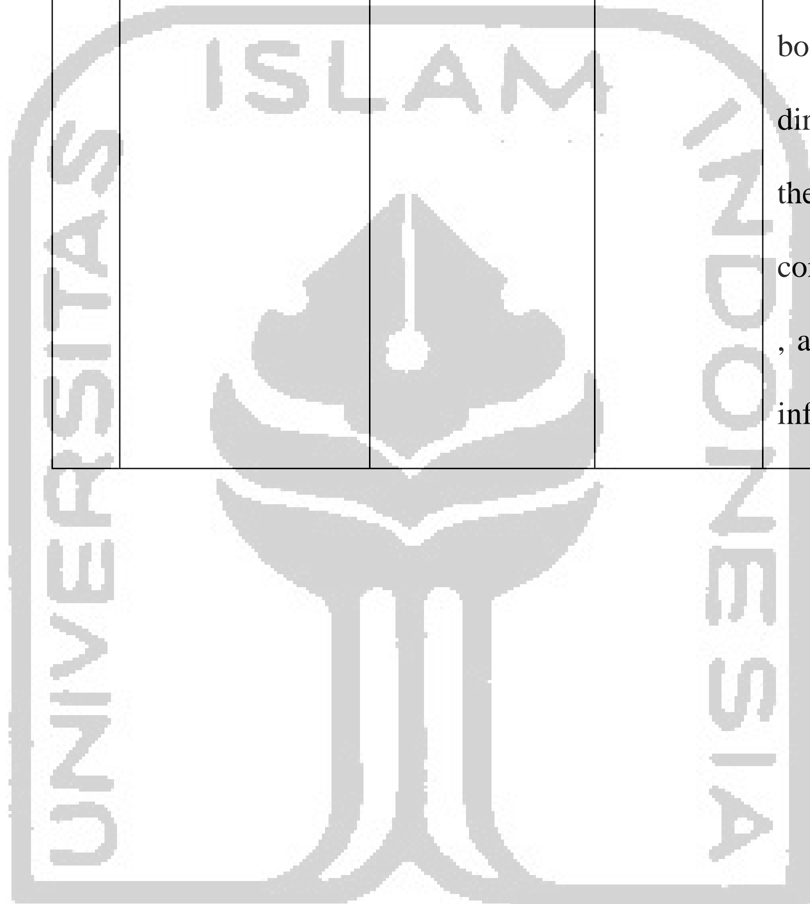
| | Distress”. | Financial distress | | influenced financial distress were the number of board of directors and the number of commissioners , and other not influenced. |
|---|---|---|---|---|



## 2.3.Hypothesis Development

The hypothesis proposed as a temporary result of the research problem formulation are:

**Managerial Ownership and Financial Distress**

As explained in the agency theory, the theory suggests an incentive mechanism for management actions to be following the interests of stakeholders. On the other hand, management will not think like stakeholders if they are in the position of stakeholders. The position between shareholders and managers can be aligned because of managerial ownership, so that financial distress is not only the responsibility of the shareholders but also as the manager's responsibility.

Managerial ownership is assumed to be able to reduce agency problems that arise in a company. Short and Keasey (1999) cited by Triwahyuningtyas and Muharam (2012), stated that there was a linear relationship between managerial ownership with the value of the company. The linear relationship was indicating the company's performance. According to Handayani and Hadinugroho (2009) in Sastriana and Fuad (2013), the managers who have shares through managerial ownership will take the decision more carefully. It was because all the consequences will also affect the manager directly. A research conducted by Triwahyuningtyas & Muharam (2014) found that the smaller or lower managerial ownership owned by the company, the higher the possibilities of the company facing financial distress. A research conducted by Sastriana & Fuad (2013) found

that if the manager had shares through managerial ownership, the manager will take decisions more carefully considering all consequences. Thus, the agency problem will be overcome. Then the manager will maximize the value of the company.

So, it can be concluded, managerial ownership negatively affects the occurrence of financial distress, because the greater the managerial ownership of a company, the greater the management to bring the company towards a better company for the company.

Based on the explanation above, the research hypothesis is formulated as follows:

**H1:** ***Managerial ownership has a negative effect on financial distress.***

**Institutional Ownership and Financial Distress**

Institutional ownership is the total proportion of company shares owned by the institution or organization. Institutional ownership such as securities companies, insurance companies, banks, investment companies, pension funds, and ownership of other institutions will encourage more optimal of the company's management performance. Compared to managerial ownership, the institutional ownership can conduct better supervision, because the institutional ownership can get more information and analysis related to the manager.

According to the agency theory perspective, institutional ownership can improve company performance, because supervision will continue to be carried out by shareholders on overall performance in the company.

According to Bodroastuti (2009), the greater the institutional ownership, the more efficient the use of company assets, so that the potential for financial distress can be minimized because companies with greater institutional ownership indicate their ability to monitor management.

A research conducted by Kurniasanti & Musdholifah (2018) found that institutional ownership affecting financial distress. It supported by Welsbach cited Triwahyuningtias & Muharam (2012) that institutional ownership structure is one of the factors that can affect the condition of the company in the future, whether the company experiences financial distress or even goes bankrupt. Thus, the greater the institutional ownership, the financial distress can be minimized. This is because of the greater the institutional ownership, the greater the monitoring of the company, which in turn will be able to encourage the smaller potential financial distress that may occur in the company.

So, it can be concluded, the greater institutional ownership by the company, the greater control by the management, because the financial distress analysis will be better and financial distress can be overcome.

Based on the explanation above, the research hypothesis is formulated as follows:

**H2:** ***Institutional ownership has a negative effect on financial distress.***

**Audit Committee and Financial Distress**

The audit committee is a committee established by the board of directors which have to control independently on financial report and external audit. Moreover, the Audit Committee is a corporate governance mechanism that is assumed to be able to reduce agency problems that arise in a company that if it occurs continuously can cause financial distress in the company (Hanifah & Purwanto, 2013). Committee audit have to (i) ensure that financial report reported following the standard, (ii) internal control structure running well, (iii) doing audit internal and audit external following the audit standard, (iv) after the auditor has finished audit, the management have to continue to follow up on audit findings.

Based on the Decision of the Directors of the Jakarta Stock Exchange No.Kep-315 / BEJ / 06/2000 stated that the membership of the audited committee at least 3 (three) members, the independent commissioner of the company and also as chairman of the committee audited, and another member is independent parties where at least one of them have the ability in the field of accounting and finance.

The number of members of the audit committee must be more than one person so that the audit committee can held meetings and giving opinions with each other. This is because each member of the audit committee has different corporate governance experiences and financial knowledge. Oktadella (2011) in Sastriana & Fuad (2013).

Therefore, it is expected that the existence of an effective audit committee can change policies in achieving accounting profit in the next few years and to increase the company performance. Thus, the company can avoid financial distress.

Based on the explanation above, the research hypothesis is formulated as follows

**H3:** ***The audit committee has a negative effect on financial distress.***

**Independent Commissioner Board and Financial Distress**

According to Jensen and Meckling (1976) in Hanafi and Breliastiti (2016), Agency theory assesses that the independent commissioner needed on the board of commissioners to supervise and control the actions of the directors. The function of the commissioner independent in supervising performance the board of directors in terms of controlling regarding financial problems then it will avoid the detrimental action to the company, and Independent commissioner board has an important role so that the company can be spared financial difficulties. So, rate the higher proportion of independent commissioners will be very influential to the lower the probability a company experiences financial distress.

Furthermore, the independent commissioner board can reduce the problem in agency theory called agency problem. Because the existence of an independent commissioner can avoid asymmetric information between the two parties who can raise the possibility of conditions financial difficulties.

Based on the explanation above, the research hypothesis is formulated as follows

**H4:** ***The independent commissioner board has a negative effect on financial distress.***

**Firm Size and Financial Distress**

Oktadella (2011) cited by Sastriana & Fuad (2013), Firm size shows how much information contained in it, and reflects the awareness of management regarding the importance of information, both for external parties and internal parties. Firm size can describe how much the number of assets owned by the company, because the larger the size of the company, the greater the number of assets owned by the company.

This condition may occur because the larger the size of the company, the number of assets owned by the company will be even greater so that if there are urgent obligations, companies will easily meet these obligations. Likewise, with the capital condition, companies have more capital so that companies will easily expand their business to other types of businesses, if they feel that the business, they are doing is experiencing bankruptcy, for example, due to losing competitiveness with other companies.

A research conducted by Sastriana & Fuad (2013) found that in larger companies with large total assets, they will be braver to use capital from loans in spending all assets, compared to smaller companies.

Based on the explanation above, the research hypothesis is formulated as follows

**H5:** ***The firm size has a negative effect on financial distress.***

**Sales Growth and Financial Distress**

Eliu (2014) in Yudiawati & Indriani (2016), Sales Growth is a ratio that measures the company's sales by calculating the difference in the sales in a certain period. Sales growth reflects the successful application of the company's investment in the past period and can be used as a predictor for future company growth. Pattinasarany (2010) in Widhiari & Merkusiwati (2015) explains that the ratio of sales growth is used to measure the level of sales growth in a period.

A study conducted by Yudiawati & Indriani (2016) shows the greater sales growth ratio's company, the less the company experiences financial distress. That is because the company's high growth rate illustrates the company can maintain its position and in good condition, so financial distress can be minimized. It supported by the study conducted by Widhiari & Merkusiwati (2015), sales growth had a significant negative effect on financial distress.

Based on the explanation above, the research hypothesis is formulated as follows:

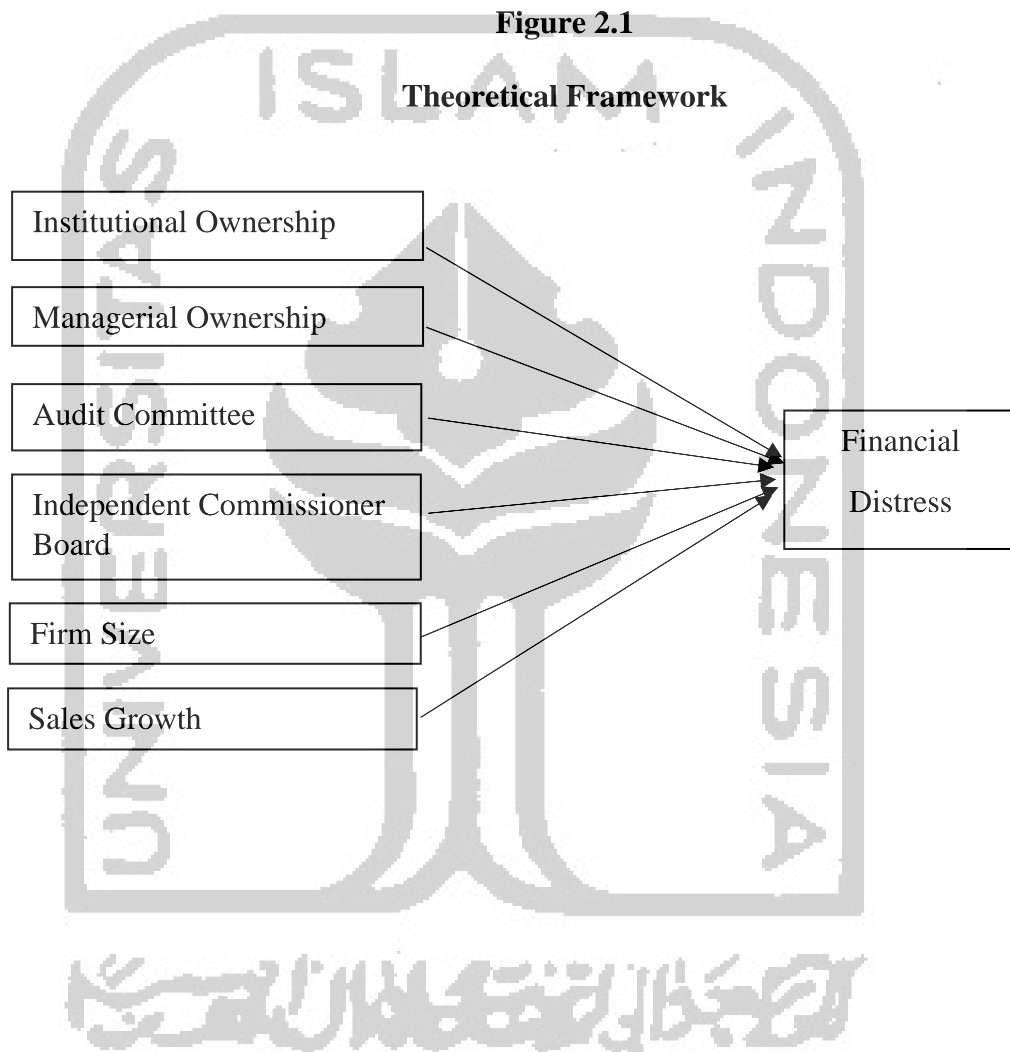
**H6:** ***The sales growth has a negative effect on financial distress.***

## 2.4.Research Model

The research model which represents the relationship among variables in this study as follows

**Figure 2.1**

**Theoretical Framework**



# CHAPTER III

# RESEARCH METHOD

## 3.1.Types of Study

According to Aliaga and Anderson (2002) in Essays (2013), "Quantitative research is an inquiry into a social problem, explain phenomena by gathering numerical data that are analyzed using mathematically based methods e.g. in particular statistics". According to the Creswell in Williams (2007) researcher primarily uses post-positivist approach to develop knowledge when quantitative research is selected (i.e cause and effect thinking, use of measurement and observations, and test of theories), employs strategies of inquiry such as experiments and surveys, and collects data on predetermined instruments that yield statistical data. This research used an attribute of managerial and institutional ownership, audit committee, independent commissioner board, firm size and sales growth and from mining companies listed in Indonesian Stock Exchange (IDX) during the period 2015-2017.

## 3.2.Population and Sample

### 3.2.1. Population

The population of this study were mining companies listed in the Indonesia Stock Exchange (BEI) for the period 2015-2017

### 3.2.2. Sample

The sample is a subset of a population selected to participate in the study, it is fraction of the whole. The sample was taken by purposive or judgmental sampling method with the certain criteria. Saunders et al (2009) cited by Niarachma (2012) stated that purposive or judgmental sampling is allowing the use of the researcher assessment in a sample selection to answer the research question and also to adjust to the research objectives. These criteria as follows:

1. Mining company
2. Listed in BEI during 2015-2017
3. Audited annual financial reports that can be accessed directly during 2015-2017

## 3.3. Data Sources and Data Collection Techniques

According to Kabir (2016), Data collection is the process of gathering and measuring information on variables of interest, in an established systematic fashion that enables one to answer stated research question, test hypotheses, and evaluate outcomes. The methods that used in data collection was direct observation, opinion, archival, and analytical strategies. In this research, the technique that researcher used an archival method to get secondary data taken from any sources. The data that used in this research was secondary data that already available or existed. The data source that used is the Audited Annual Financial Report of the Mining

Companies listed in Indonesia Stock Exchange (BEI) for the period 2015-2017 that published on IDX website.

## 3.4.Definition of Operational Variables

In this research, there were two types of variables which is independent variable and dependent variable.

### 3.4.1. Independent Variable

Independent variable is a variable that affects or influences the change in dependent variable. In other word, the changes of dependent variable because independent variable. In this research, the independent variables that used were Good Corporate Governance (GCC): Managerial Ownership, Institutional Ownership, Audit Committee, and Independent Commissioner Board, Firm Size, and Sales Growth.

**Managerial ownership**

Managerial ownership is the proportion of company ownership by management (directors or commissioners). The greater the proportion of ownership by management, the greater the responsibility of management in managing the company. Good management in the company will give better quality in the financial report because of management also as a supervisor in control of the company's operational until making financial reports. Thus, managerial ownership can increase the effectiveness of management working as well as decreasing the financial distress that can make damage the company. Managerial

ownership is measured by dividing share ownership by management who actively participate in corporate decision making by the total number of outstanding shares (Puspitasari & Ernawati, 2010)

Managerial ownership = Total shares owned by management / $Total$ outstanding shares

**Institutional ownership**

Institutional ownership the proportion of company ownership by the institution. Several shareholders which are foreign companies, BUMN, insurance, bank or others that have big control over management and giving motivation for management to the optimization of company value so it will increase company performance and decrease financial distress. The higher institutional ownership shows the ability to control the management and the more efficient the utilization of assets so the potential of financial distress can be minimized. Institutional ownership is measured by dividing share ownership by institution by the total number of outstanding shares.

Institutional ownership = Total shares owned by institution / $Total$ outstanding shares

**Audit Committee**

Audit Committee is corporate governance mechanism which assumed declining financial distress. Audit committee competency is one factor which influence company performance. Audit committee help

management about financial report and explanation, internal control system, and independent auditor.

Based on the Decision of the Directors of the Jakarta Stock Exchange No. Kep-315 / BEJ / 06/2000 stated that the membership of the audited committee at least 3 (three) members, the independent commissioner of the company and also as chairman of the committee audited, and another member are independent parties where at least one of them have ability in the field of accounting and finance.

Audit Committee = Total audit of company in certain period (t)

**Independent Commissioner Board**

Independent commissioner as *controveiling power,* which means the existence of independent commissioner as supervisor of long term strategies decided by commissioner board, supervision was also carried out by an external independent party so it will raise appropriate decision and keep the company safe from the possibility of financial distress. The existence and the minimum number of Independent Commissioners have also been regulated in the Indonesian Stock Exchange (IDX) regulations. Listing of Regulation No. 1-A Kep-305 / BEJ / 07-2004: regarding General Provisions for Listing of Equity Securities on the exchange. The regulation states that the existence of an Independent Commissioner is mandatory for companies whose listings are proportional to the number of shares owned by non-controlling shareholders provided that the number of independent Commissioners is at least 30% of the total

members of the commissioners. Independent commissioner board was measured by dividing the number of Independent Commissioners by the total members in the Board of Commissioners

Independent Commissioner Board = Total number of independent commissioner board / Total board of commissioners

**Firm Size**

The amount of assets is considered able to describe the actual size of the company because of the assets owned by the company can be known rights and obligations and capital owned by the company (Bukhori & Raharja, 2012). Therefore, the firm size in this study was measured using a natural log (Ln) of total assets (Puspitasari and Ernawati, 2010).

FS = log (Total Assets)

**Sales Growth**

Sales growth is a ratio to measure the growth of company sales by measuring the difference in value of sales in certain period. And the formula for sales growth ratio was:

Sales Growth = (Net Sales (t) – Net Sales (t-1)) / Net Sales (t-1)

### 3.4.2. Dependent Variable

Dependent variable is the variable that affected by the independent variable. The dependent variable in this study was financial distress. According to Elloumi and Gueyie (2001) in Bodroastuti (2009), Financial distress defined company that had negative earnings per share (EPS).

The earnings per share showed the ability of the company to gain of shares that will give to shareholders, where the gain from the company operation. The negative earnings per share as an indicator of the profitability of the company showed a negative condition, because by the income received by the company in the period was smaller than the costs incurred. Thus, it can be concluded that the company was in financial distress. In this study, dependent variable was a dummy variable. A dummy variable or qualitative showed presence or absence of quality or attribute (Ghozali, 2006) in (Niarachma, 2012). To quantify the qualitative variable above by forming the artificial variable with value 0 or 1, which is 0 indicating the presence of an attribute and 1 indicating the absence of an attribute. Thus, the given score is 0 (zero) for negative EPS (financial distress) and 1 (one) for positive EPS (healthy company).

Overall, the operational variables used in this research shown in the Table 3.1 below

**Table 3.1 Operational variables**

| Variables | Measurements | Acronyms |
|---|---|---|
| Financial Distress | 0 for financial distress and 1 for healthy company | FD |
| Managerial Ownership | Share ownership by management divided | MANOWN |

| | by the total number of outstanding shares | |
|---|---|---|
| Institutional Ownership | Share ownership by institution divided by the total number of outstanding shares | INSOWN |
| Audit Committee | Total audit of company in certain period (t) | AUCOM |
| Independent Commissioner Board | dividing the number of Independent Commissioners by the total members in the Board of Commissioners | INDEPCOM |
| Firm Size | The natural log (Ln) of total assets (Puspitasari and Ernawati, 2010). | FIRMSIZE |

| Sales Growth | The difference of current sales period with the previous period, divided by the sales of the previous period | SALESGROWTH |
|---|---|---|

## 3.5.Data Analysis Method

### 3.5.1. Descriptive Statistics

Descriptive statistics were used to describe the main financial variables disclosed by companies in the financial statements for the period 2015-2017. The analytical tool used was the minimum value (MIN), maximum value (MAX), average value (AVERAGE), and standard deviation to describe the research variables (Ghozali,2013) cited by (Hanafi & Breliastiti,2016)

### 3.5.2. Multiple Regression Analysis

This study used multiple regression analyses in testing the hypothesis. Multiple regression analysis is a method used to analyze the relationship between a dependent variable (Y) with one or more independent variables (X) whether the independent variable has positive or negative and to predicting dependent variable value whether the value

of dependent variable increasing or decreasing. Variable equations obtained from the calculation process must be statistically tested. The regression coefficient values are followed by a model fit test if all regression coefficients are significant and the model obtained is in conformity then the resulting regression equation can be used to predict the value of the dependent variable. If the resulting test less than significant (Sig $\leq$ 0,05), then Ha (alternative hypotheses) is accepted, it shows there was significant influence between the independent variable and the dependent variable. If the resulting test more than significant (Sig $\geq$ 0,05), then Ha (alternative hypothesis) is rejected. It shows there was no influence on the independent variable and dependent variable.

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + e$$

Where:

$Y$ = Financial Distress

$\alpha$ = Constant

$\beta$ = Regression Coefficient

$X_1$ = Managerial Ownership

$X_2$ = Institutional Ownership

$X_3$ = Audit Committee

$X_4$ = Independent Commissioner Board

$X_5$ = Firm Size

$X_6$ = Sales Growth

e = Error

### 3.5.3. Classical Assumption Test

The classical assumption test in the regression analysis was necessary to ensure that the regression coefficient obtained based on unbiased data analysis. Regression models that have a regression coefficient of bias can cause errors in their use. Before, using the regression model to make a decision, the classical assumption test will be ensured that the regression model has an unbiased regression coefficient. The classical assumption test included: normality test, autocorrelation test, heteroscedasticity test, and multicollinearity test.

#### 3.5.3.1. Normality Test

Normality test used to test in regression between dependent variable and independent variable have normal distribution (unbiased regression) or unnormal distribution (bias regression) (Ghozali,2011:19) cited by (Ayuwardani,2018). This test performed by using non-parametric test or Kolmogorov-Smirnov (K-S). K-S test used by make hypotheses as follow:

Ho = Normal distribution

Ha = Abnormal distribution

The standard in making decision of K-S test

a) If the K-S statistics was significant (sig<0,05) then Ho was rejected, which means the data distribution being tested was unnormal distribution

b) If the K-S statistics was not significant (sig>0,05) then Ho was accepted, which means the data distribution being tested was normal distribution.

#### 3.5.3.2. Multicollinearity Test

According to Ghozali (2011:105) cited by Ayuwardani (2018), A Multicollinearity test is used to know whether any relation between the independent variable in the regression model. A good regression model should there is no relation between independent variable. This test is done using the Tolerance (TOL) and Variance Inflation Factor (VIF) method.

TOL is the magnitude of variation from one independent variable that is not explained by other independent variables. Meanwhile, VIF explains an independent variable that explained by other independent variables. Multicollinearity test can be shown using cut off value which is value TOL>0,10 or equal and VIF<10 (Ghozali,2011) cited by (Rachmania,2017).

#### 3.5.3.3. Heteroscedasticity Test

This test aims to test whether the regression model occurs variance from one observation residual to another observation (Ghozali,2011:139) cited by (Ayuwardani,2018). If there is no existence of variance, it was called homoscedasticity. While heteroscedasticity when

if there was the existence of variance. This test was done by using the Spearman rank collection method. If an independent variable had a spearman rank correlation that was not significant, so the independent variable does not experience heteroscedasticity.

#### 3.5.3.4. Autocorrelation Test

According to Ghozali (2011: 110) cited by Ayuwardani (2018), the autocorrelation test aims to test whether in the linear regression model there was a correlation between the error of the intruder in the period t with the error of the intruder in the period t-1 (previous). If there was an autocorrelation then there was a problem autocorrelation.

In this test, the regression model of this research using Durbin-Watson test. There are some criteria in Durbin-Watson (DW) test as follow:

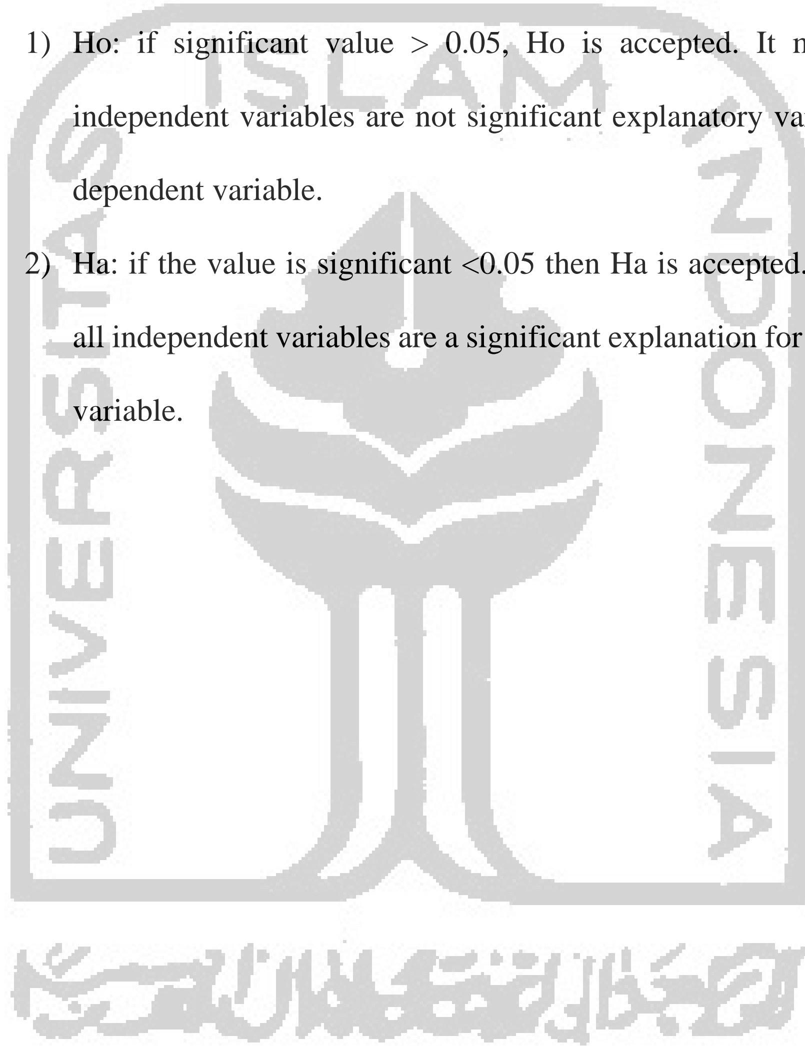
a) $0<d<dl$, means there was no positive autocorrelation and rejected
b) $dl \leq d \leq du$, means there was no positive autocorrelation and no decision
c) $4 - dl < d < 4$, means there was no negative autocorrelation and rejected
d) $4 - du \leq d \leq 4 - dl$, means there was no negative autocorrelation and no decision
e) $du < d < 4 - du$, means there was no positive or negative autocorrelation and accepted.

### 3.5.3.5. Hypothesis Test

This test is used to test and analyze the relation between independent variable (X) and dependent variable (Y)

The hypotheses tested are:

1) Ho: if significant value > 0.05, Ho is accepted. It means that all independent variables are not significant explanatory variables for the dependent variable.
2) Ha: if the value is significant <0.05 then Ha is accepted. It means that all independent variables are a significant explanation for the dependent variable.



# CHAPTER IV

# DATA ANALYSIS AND DISCUSSION

In this chapter, it presented the description of the research object, the result of the analyzed data and the data discussion. Data analysis presented in this research are descriptive statistical analysis, the classical assumption test, logistic regression analysis method and hypothesis testing. The data in this research were collected and processed by using a computer program IBM SPSS Statistics 16 2019.

## 4.1.Population and Sample

The data used for this research were obtained from Indonesian Stock Exchange (IDX). The population in this research is Mining Companies during 2015-2017. The sample of this research determined by using purposive sampling method with some criteria as follows:

1. Mining company
2. Listed in BEI during 2015-2017
3. Audited annual financial reports that can be accessed directly during 2015-2017

Based on those criteria, 20 companies fulfilled the criteria so they can include as the sample of this research.

## 4.2. Descriptive Analysis

Mudrajad Kuncoro (2009: 192) says that one form of analysis is the activity of inferring large amounts of raw data so that the results can be interpreted. Grouping or separating the relevant components or parts of the whole data, is also one form of analysis to make data easily managed. Setting, sorting, or manipulating data can provide descriptive information that will answer the questions in the definition of the problem. All forms of analysis try to describe consistent patterns in the data, so the results can be studied and interpreted in a concise and meaningful way.

**Table 4.1**

**Descriptive Statistics**

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| MANOWN | 60 | .00 | .60 | .0809 | .15558 |
| INSOWN | 60 | .28 | .93 | .6085 | .15724 |
| AUCOM | 60 | 1.00 | 4.00 | 3.0000 | .52076 |
| INDEPCOM | 60 | .10 | .76 | .4033 | .14771 |
| FIRMSIZE | 60 | 5.51 | 11.84 | 8.1557 | 1.57529 |
| SALESGROWTH | 60 | -11.53 | .70 | -.2017 | 1.55094 |
| FD | 60 | .00 | 1.00 | 38.74 | 179.5857 |
| Valid N (listwise) | 60 | | | | |

*Source: Data processed using SPSS 16,2019*

From the table descriptive above, the conclusions are as follows:

1. The minimum value of financial distress is 0, meaning that the company is experiencing financial distress. While the maximum value financial distress is 1, meaning that the company is not experiencing financial distress (health company). The mean value of company's financial distress is 38.74 which also showed that the number of companies experiencing financial distress is 3,874%. The standard deviation value is 179.5857 which is above the mean value so that it can be concluded the data is heterogeneous.
2. The minimum value of managerial ownership is 0, meaning the company has the managerial ownership below 5% while the maximum value of managerial ownership is 0.60 which means the company having the managerial ownership is above 5%. The mean value of the managerial ownership is 0.0809, showing that the number of companies experiencing financial distress is 8.09%. The standard deviation value is .15558 which is above the mean value so it can be concluded that the managerial ownership is heterogeneous
3. The minimum value of institutional ownership is 0.28, which belongs to PT Toba Bara Sejahtera Tbk in the year 2015. While the maximum value is 0.93 which belongs to PT Toba Bara Sejahtera in the year 2016 & 2017 meaning the company has the highest institutional ownership with total of 93%. The mean value of the institutional ownership is 0.6085 or 60.85%. The value of standard deviation is 0.15724 which is below the

mean value. So, it can be concluded that institutional ownership is homogeneous.

4. The minimum value of audit committee is 1.00. It belongs to PT. Borneo Lumbung Energi Dan Metal Tbk, which means the company has the fewest audit committee. The maximum value is 4.00, it belongs to PT. Aneka Tambang Tbk, which means the most audit committee compared to other companies. The mean value of audit committee is 3.0000 or can be interpreted as 3% where there is 3 audit committee inside the company. The value of standard deviation is .52076 which below the mean value. Thus, it can be concluded that audit committee is homogeneous.
5. The minimum value of independent commissioner is 0.10. It belongs to PT. Bukit Asam Tbk, which means the company has the fewest independent commissioner. The maximum value is 0.76, it belongs to PT. Golden Eagle Energy Tbk, which means the most independent commissioner compared to other companies. The mean value of independent commissioner is 0.4033 or can be interpreted as 40.33% where the level of independent commissioner already complied with the regulation which is 1/3 of the number of independent commissioners. The value of standard deviation is .14771 which below the mean value. Thus, it can be concluded that independent commissioner is homogeneous.

6. The minimum value of firm size is 5.51. It belongs to PT. Atlas Resources Tbk, which means the company has the lowest firm size compared to others. The maximum value is 11.84, it belongs to PT. Golden Eagle Energy Tbk, which means the highest firm size compared to other companies. The mean value of firm size is 8.1557, which means the level of firm size that measured using total asset of the companies is Rp. 32,130,753,524. It means several companies included in big companies because the total assets above 10 billion related in *Undang – Undang No.20 Tahun 2008* about firm size clarification. The value of standard deviation is 1.57529 which below the mean value. Thus, it can be concluded that independent commissioner is homogeneous.
7. The minimum value of sales growth is -11.53. It belongs to PT. Indika Energy Tbk, which means the company has the lowest sales gwoth. The maximum value is 0.70, it belongs to PT. Goldern Eagle Energy Tbk, which means the highest sales growth compared to other companies. The mean value of sales growth is -0.2017 or can be interpreted as -20.17%. The value of standard deviation is 1.55094 which is above the mean value. Thus, it can be concluded that sales growth is heterogeneous.

## 4.3.Classical Assumption Test

### 4.3.1. Normality Test

Normality test used to test in regression between dependent variable and independent variable have normal distribution (unbiased regression) or unnormal distribution (bias regression) (Ghozali,2011:19) cited by (Ayuwardani,2018). The t-test and F test assume that the residual value follows the normal distribution, if this assumption is violated then the statistical test becomes invalid for a small number of samples. There are two ways to detect whether residuals are normally distributed or not, namely graphical analysis and statistical tests. The data normality test in this study uses the Kolmogorov-Smirnov non-parametric statistical test (K-S) by making a hypothesis (Sugiyono, 2008: 147-152):

1. Ho: accepted if the probability is greater than 0.05 (> 0.05), i.e. the residual variable is normally distributed.
2. Ha: accepted if the probability is less than 0.05 (<0.05), i.e. the residual variable is abnormal distributed.

The reason for using the significance level of 0.05 (5%) is to believe that 95% of the research results can be trusted.

**Tabel: 4.2**

**One-Sample Kolmogorov-Smirnov Test**

| | | Unstandardized Residual |
|---|---|---|
| N | | 60 |
| Normal Parameters[a] | Mean | .0000000 |
| | Std. Deviation | 3.33604421 |
| Most Extreme Differences | Absolute | .100 |
| | Positive | .073 |
| | Negative | -.100 |
| Kolmogorov-Smirnov Z | | .777 |
| Asymp. Sig. (2-tailed) | | .582 |

a. Test distribution is Normal.

*Source: Data processed using SPSS 16,2019.*

Based on the table above, the Asymp. Sig. (2-tailed) value is 0.582 which is greater than 0.05, it can be concluded that the residual data are normally distributed.

### 4.3.2. Multicollinearity Test

According to Ghozali (2011:105) cited by Ayuwardani (2018), A Multicollinearity test is used to know whether any relation between the independent variable in the regression model. A good regression model there is no correlation between independent variables. Multicollinearity test can be seen from (1) tolerance value and, (2) Variance Inflation Factor (VIF). Cut off values commonly used to indicate the presence of multicollinearity are Tolerance values> 0.10 or equal to VIF values <10 (Ghozali, 2010: 105).

**Tabel: 4.3**

**Tolerance Values and VIF**

| Model | *Collinearity Statistics* | |
|---|---|---|
| | ***Tolerance*** | **VIF** |
| Managerial Ownership | .857 | 1.166 |
| Institutional Ownership | .831 | 1.203 |
| Audit Committee | .906 | 1.104 |
| Independent Commissioner Board | .839 | 1.192 |
| Firm Size | .958 | 1.044 |
| Sales Growth | .990 | 1.010 |

*Source: Data processed using SPSS 16,2019.*

The lowest tolerance value is Institutional ownership which is equal to 0.831. Therefore, none of the tolerance values of the independent variable is higher than 0.10. While the value of the variant inflation factor (VIF) is highest in the variable Institutional ownership which is equal to 1.203. Thus, it can be concluded that there is no multicollinearity between independent variables in the regression model, because none of the independent variables has a tolerance value higher than 0.10 and a VIF lower than 10.

### 4.3.3. Heteroscedasticity Test

This test aims to test whether the regression model occurs variance from one observation residual to another observation (Ghozali,2011:139) cited by (Ayuwardani,2018). If there is no existence of variance, it was called homoscedasticity and the other one is called

heteroscedasticity. A good regression model is a regression model of homoscedasticity or heteroscedasticity does not occur because this data collects that represent various values.

According to Ghozali (2013: 142), one way to detect the presence or absence of heteroscedasticity is to do a Glejser test. The Glejser test proposes to regress the absolute value of residuals to the independent variables. The probability result called significant if the significance value is above the 5% confidence level. Heteroscedasticity test results are as follows:

**Table: 4.4**

**Heteroscedasticity Test**

| Variable | Limit ation | Significant |
|---|---|---|
| Managerial Ownership | 0.05 | .393 |
| Institutional Ownership | 0.05 | .921 |
| Audit Committee | 0.05 | .097 |
| Independent Commissioner Board | 0.05 | .285 |
| Firm Size | 0.05 | .742 |
| Sales Growth | 0.05 | .732 |

*Source: Data processed using SPSS 16,2019.*

Table 4.4 above shows that the correlation value of all independent variables with Significance value has a more than 0.05, it can be concluded that there is no heteroscedasticity problem in the regression model.

#### 4.3.4. Autocorrelation Test

**Table: 4.5**

**Model Summary[b]**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|---|---|---|---|---|---|
| 1 | .503[a] | .253 | .168 | 3.51982 | 2.168 |

a. Predictors: (Constant), X6, X3, X5, X2, X1, X4
b. Dependent Variable: Y

*Source: Data processed using SPSS 16,2019.*

The durbin-watson (d) value of 2.168 is greater than the upper limit of 1.8082 (dw table) and less than (4-du) 4-18082. = 2.1918. So, as the basis for decision making in the Durbin Watson test above, it can be concluded that there are no problems or symptoms of autocorrelation.

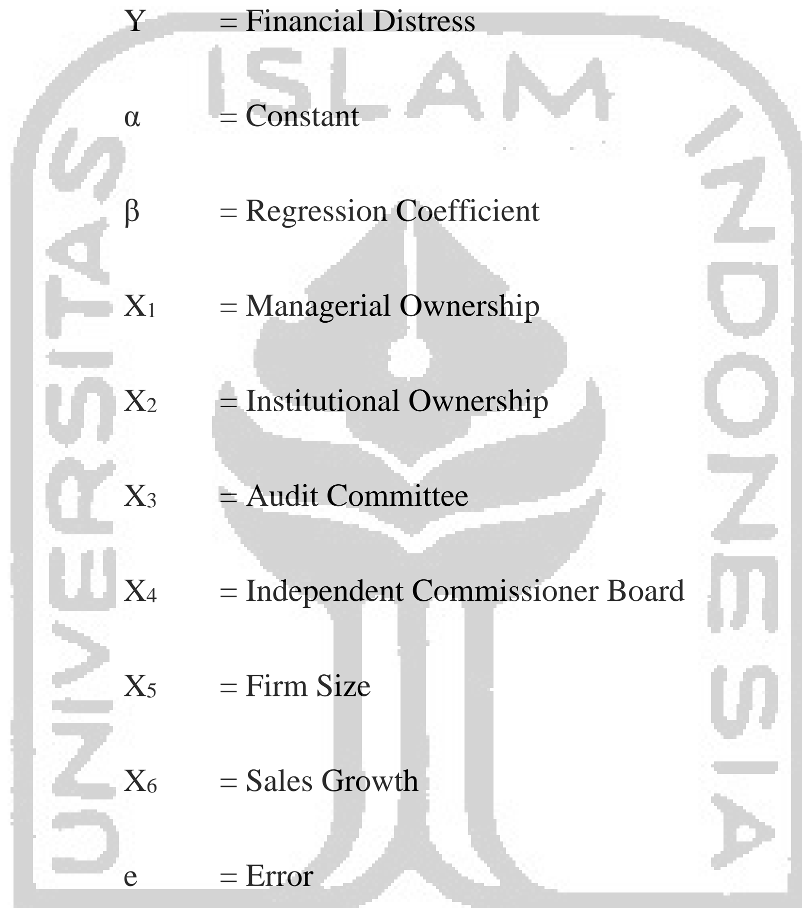
Thus, the multiple linear regression analysis to test the above research hypothesis can be done.

### 4.4.Multiple Regression Analysis

Jonathan Sarwono (2006: 128) said that the function of multiple linear regression is to estimate the magnitude of the coefficients resulting from a linear equation, which involves two independent variables, to be used as a means of predicting the value of the dependent variable. The multiple linear regression equation is:

$$Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \beta_6X_6 + e$$

Where:




$Y$ = Financial Distress

$\alpha$ = Constant

$\beta$ = Regression Coefficient

$X_1$ = Managerial Ownership

$X_2$ = Institutional Ownership

$X_3$ = Audit Committee

$X_4$ = Independent Commissioner Board

$X_5$ = Firm Size

$X_6$ = Sales Growth

$e$ = Error

From the results of multiple linear regression analysis obtained the results of the regression coefficient, and p-value. The results of the linear regression analysis can be shown as in Table 4.6.

**Table: 4.6**

**Multiple Regression Analysis**

| Model | B | Sig |
|---|---|---|
| (Constant) | -239 | .955 |
| Managerial Ownership | 10.682 | .001 |
| Institutional Ownership | 7.046 | .032 |
| Audit Committee | -.176 | .850 |
| Independent Commissioner Board | -9.013 | .010 |
| Firm Size | .075 | .801 |
| Sales Growth | .229 | .443 |

Based on the table above, the results of the calculation of multiple linear regression produce the following equation:

$$\mathbf{Y = -0.239 + 10.682}X_1 + \mathbf{7.046}X_2 \mathbf{- 0.176}X_3\mathbf{-9.013}X_4 + \mathbf{0.075}X_5 + \mathbf{0.229}\, X_6$$

Based on the table, the following conclusions are obtained:

1. Constant variable value of -0.239. Means that if the variables are valued at 0, then the financial distress variable is -0.239.
2. The contribution of managerial ownership variables to the level of financial distress variables is 10,682, assuming other variables are constant.
3. The contribution of institutional ownership variables to the level of variable financial distress is 7,046, assuming other variables are constant.

4. The contribution of audit committee variables to the level of financial distress variables is -0.176, assuming other variables are constant.
5. The contribution of the independent commissioner variable to the level of financial distress variable is -9,013, assuming other variables are constant.
6. The contribution of firm size variables to the level of financial distress variable is 0.075, assuming other variables are constant.
7. The contribution of sales growth variable to the level of financial distress variable is 0.229, assuming other variables are constant.

**4.5.Hypothesis Test**

Jonathan Sarwono (2006: 65) stated that the hypothesis can be as a temporary answer to the problem being studied. Hypothesis can be derived from theories relating to the problem we will examine. The hypothesis is a temporary truth that still needs to be tested. Therefore, the hypothesis functions as a possibility to test the truth of a theory. If the hypothesis has been tested and proven true then the hypothesis becomes a theory. Thus, a hypothesis is derived from an existing theory, the possibility of being tested for truth and finally bringing forth a new theory.

1.Simultaneous Significance Test

According Ghozali (2010: 98) F statistical test basically shows whether all the independent variables intended in the model have a simultaneous influence on the dependent variable. Tests carried out using significance level 0.05 ($\alpha$ = 5%). With the following equation:

Ha: Managerial ownership, institution ownership, audit committee, independent commissioner board, firm size, and sales growth have a significant positive effect on financial distress Mining companies listed on the IDX 2015-2017

The hypothesis tested are:

3) Ho: if the significant value > 0.05, Ho is accepted. It means that all independent variables together are not significant variables for the dependent variable.
4) Ha: if the significant value <0.05 then Ha is accepted. It means that all independent variables together are a significant variables for the dependent variable.

The results of the simultaneous significance tests (F test) can be seen in the table below:

**Table: 4.7**

**F Test**

**ANOVA[b]**

| Model | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| 1 Regression | 222.131 | 6 | 37.022 | 2.988 | .014[a] |
| Residual | 656.622 | 53 | 12.389 | | |
| Total | 878.753 | 59 | | | |

a. Predictors: (Constant), X6, X3, X5, X2, X1, X4
b. Dependent Variable: Y
*Source: Data processed using SPSS 16,2019.*

Based on the results of the analysis above, a significance probability value of 0.014 <0.05 is obtained. it means that the regression

model used in this research significant and can predict the financial distress.

2. Determination coefficient

The quality of the regression equation can be seen from the value of determination (R2). Mathematically, the value of determination was the square of the correlation coefficient (r). Because the value of R2 was often overestimated, some statistical software will calculate the corrected R2 (adjusted R2). The value of determination provides information on how big the role of the independent variables were in determining the dependent variable. The value of determination was between 0% to 100%. The closer to 100% the better the determination of the regression equation (Dahlan, 2013). To find out the percentage change in the dependent variable (Y) caused by the independent variable (X) can be seen in the table below:

**Table 4.8**

**Determination Coefficient Test**

**Model Summary[b]**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|---|---|---|---|---|---|
| 1 | .503[a] | .253 | .168 | 3.51982 | 2.168 |

a. Predictors: (Constant), X6, X3, X5, X2, X1, X4

b. Dependent Variable: Y

*Source: Data processed using SPSS 16,2019.*

Based on the table above obtained the coefficient of determination of 0.253. It means that the percentage change in the

dependent variable (Y) caused by the independent variable (X) is 25.3%, while the remaining 74.7% is influenced by other variables outside this study.

3. Partial Significance Test (t test)

According to Ghozali (2010: 98), the statistical test (t) basically shows how far the influence of one independent variable individually in explaining the dependent variable. This test was used to determine the level of influence between each independent variable partially on the dependent variable. According to Sugiyono (2014: 257) that (t-test) the results of this calculation compare with $t_{tables}$ using an error rate of 0.05. The criteria used are as follows:

- $H_0$ was accepted if the $t_{value} \leq t_{table}$ or the value of sig> α
- $H_0$ was rejected if the $t_{value} \geq t_{table}$ or the value of sig <α

If the acceptance of Ho occurs, it can be concluded that there was no significant effect, whereas if Ho was rejected, it means that there was a significant influence. As for the hypothesis in this study are:

- Ho: $\beta = 0$: there was no significant influence
- Ha: $\beta \neq 0$: there was a significant influence

**Table 4.9**

**T Test**

| Model | B | Sig |
|---|---|---|
| (Constant) | -239 | .955 |
| Managerial Ownership | 10.682 | .001 |
| Institutional Ownership | 7.046 | .032 |
| Audit Committee | -.176 | .850 |
| Independent Commissioner Board | -9.013 | .010 |
| Firm Size | .075 | .801 |
| Sales Growth | .229 | .443 |

*Source: Data processed using SPSS 16,2019.*

**1. Managerial Ownership & Financial Distress**

The first hypothesis shows that Managerial ownership has negative influence towards financial distress. From table 4.9 the relation between managerial ownership and financial distress is 10.682 and significance value is 0.001. Based on the criteria, so the regression coefficient is significance (0.001<0.05). Thus, managerial ownership has positive significance influence towards financial distress. So, first hypotheses is not supported.

**2. Institutional Ownership & Financial Distress**

The second hypothesis shows that Institutional ownership has negative influence towards financial distress. From table 4.9 the relation between managerial ownership and financial distress is 7.046 and

significance value is 0.032. Based on the criteria, so the regression coefficient is significance (0.0032<0.05). Thus, institutional ownership has positive significance influence towards financial distress. So, second hypotheses is not supported.

**3.Audit Committee & Financial**

The third hypothesis shows that Audit Committee has negative influence towards financial distress. From table 4.9 the relation between audit committee and financial distress is -0.176 and significance value is 0.850. Based on the criteria, so the regression coefficient is not significance (0.850>0.05). Thus, Audit committee does not influence on financial distress. So, the third hypotheses is not supported.

**4.Independent Commissioner Board & Financial Distress**

The fourth hypothesis shows that Independent commissioner board has negative influence towards financial distress. From table 4.9 the relation between independent commissioner board and financial distress is -9.013 and significance value is 0.010. Based on the criteria, so the regression coefficient is not significance (0.010<0.05). Thus, independent commissioner board has negative significance influence towards financial distress. So, the fourth hypothesis is supported.

**5.Firm size and Financial Distress**

The fifth hypothesis shows that Firm size has negative influence towards financial distress. From table 4.9 the relation between firm size and financial distress is 0.075 and significance value is 0.801. Based on

the criteria, so the regression coefficient is not significance (0.801>0.05). Thus, firm size does not influence on financial distress. So, the fifth hypothesis is not supported.

**6. Sales Growth & Financial Distress**

The sixth hypothesis shows that sales growth has negative influence towards financial distress. From table 4.9 the relation between sales growth and financial distress is 0.229 and significance value is 0.443. Based on the criteria, so the regression coefficient is not significance (0.443>0.05). Thus, sales growth does not influence on financial distress. So, the sixth hypothesis is not supported.

## 4.6. Discussion

### 4.6.1. Managerial Ownership and Financial Distress

The result of this study proved that managerial ownership has a positive significant influence on financial distress, meaning that managerial ownership affecting the condition of financial distress. The greater managerial ownership will increase financial distress.

Managerial ownership is the amount of share ownership by the management of all the company's share capital that is managed. With the ownership of shares by management, there will be an oversight of the policies that will be taken by the company's management. Managerial ownership of the company is closely related to control and monitoring of management behavior, as a consequence of agency conflict. Managerial ownership can help to align management interests with shareholders. The

manager will be careful in every decision making because every decision taken will directly affect the managers.

In this result, greater managerial ownership will increase financial distress. It is because there is a conflict between the managers that have ownership in the company. If a manager has big control, the manager will tend to have incentives to gain personal profit. In line with the agency, the theory is the assumption about human behavior that is selfish (self-interest).

And the existence of managerial ownership is not carried out good in monitoring the management functions and the management does not aware towards the shares that invested in company. So, the management does not take decision carefully and financial distress cannot be minimized.

This result in accordance with the statement of Ellen & Juniarti (2013) that proved that the managerial ownership is only symbolic and the implementation of good corporate governance in a firm is only a formality which is not supported by an efficient performance.

### 4.6.2. Institutional Ownership and Financial Distress

The result of this study proved that the institutional ownership has positive significant influence on the financial distress, meaning that the greater of institutional ownership, the greater financial distress.

Based on the principal of agency theory, institutional ownership is able to monitor the agents through the effective monitoring process. Monitoring functions performed by institutional owners would make the firm more efficient in the use of firm assets as resources in its operation. A percentage of shares owned by the institution can control and encourage the managers to be more focused on the company performance in order to reduce the financial distress. Institutional ownership has ability to reduce the opportunities which have done by management so that the financial distress can be reduced.

This research proved that the grater institutional ownership will increase financial distress. It was due to the institutional stock ownership is majority and centralized ownership. Centralized ownership can lead to lack of transparency in the use of funds in the firm as well as an appropriate balance between interest that exist. For example, between the shareholders and firm management.

Centralized institutions no longer perform its function to encourage the improvement of supervision on management. Institutional parties as shareholders indicated could easily control the management of the firm by the existence of such large shareholdings.

This result accordance with the statement of Ellen & Juniarti (2013), Witiastuti & Suryandari (2016), that proved， that is because in a firm is often the institutional ownership is merely a formality and is not intended to meet good corporate governance. So, the supervision on the

management in carrying out its operational activities are not actually carried out by the institution.

### 4.6.3. Audit Committee and Financial Distress

The result of this study proved that the audit committee does not influence financial distress, meaning that the audit committee will not affect the condition of financial distress in the company.

The competency of the audit committee should enable control matters relating to company finances early on so that the audit committee can make corrections of the company's financial condition to avoid the company from financial distress. The primary job of the audit committee is to audit the financial statement and giving the result to the management. The management needs to follow up the result for take a decision and make a new policy (if necessary) related to the result of the auditor. If the management does not follow up the auditor's report for take a decision based on the result of the auditor so it will not effective and it will make financial distress because there is no new policy by the management.

This result is in accordance with the research by Hanifah & Purwanto (2013), Masak & Noviyanti (2019) that the audit committee does not influence financial distress. The audit committee is a corporate governance mechanism that able to reduce the agency problems arising inside the company. If the problems are continuing, it will arise financial distress in the company.

### 4.6.4. Independent Commissioner Board and Financial Distress

The result of this study proved that the Independent commissioner board has negative significant influence on financial distress, meaning that the independent commissioner board will affect the condition of financial distress.

The function of the commissioner independent in supervising performance the board of directors in terms of controlling regarding financial problems. Then it will avoid the detrimental action to the company, and Independent commissioner board has an important role. So that the company can be minimized financial distress. thus, the higher proportion of independent commissioners will be very influential to the lower the probability a company experiences financial distress.

This result is in accordance with the research by Hanifah and Purwanto (2013) stated that the Independent Commissioner board has negative significant influence on financial distress.

### 4.6.5. Firm Size and Financial Distress

The result of this study proved that the Firm size does not influence financial distress, meaning that the firm size will not influence the condition of financial distress.

There are no different companies between assets in big companies and assets in small companies. It can be seen through their investor. The investors are investing in big companies or small companies

to help companies in the financial sector. If the investors are investing in a big money to a small company, it will avoid the company from financial distress. In the same way, if the investors are investing in the big company to give capital to the company, it will overcome financial distress.

This result is in accordance with the research by (Cinantya & Merkusiwati, 2015), Sastriana & Fuad (2013), Kurniasanti & Musholifah (2018) that firm size does not influence financial distress.

### 4.6.6. Sales Growth and Financial Distress

The result of this study proved that Sales growth does not influence financial distress, meaning that the sales growth will not affect the condition of financial distress.

Sales growth does not influence financial distress because of the market. Trading companies have a big relation to the market in order of sales especially mining companies. Several factors influence the market such as availability. Availability means the product that offers to the market is difficult to be found or there is a lot of product that sells in the market. If the product is difficult to be found in the market so the price will higher. On the other words, if the product is sold in the market so the price will be lower.

Thus, if the sales are higher it will not influence financial distress because it will only increase the net income obtained by the company. And if the sales are lower it will not influence financial distress because it will only decrease the net income obtained by the company.

This result is in accordance with the research by Aini & Purwohandoko (2019), Widarjo & Setiawan (2009) stated that sales growth does not influence on financial distress. And the result is in contrast with the research conducted by Merkusiwati and Widhiari (2015) which proved that growth sales has negative significant effect on financial distress.

# CHAPTER V

# CONCLUSION AND RECCOMENDATION

## 5.1.Conclusions

Based on the results and hypothesis testing explained on previous chapter. Thus, it concluded that:

1. Managerial ownership has a positive significant influence on the financial distress. It proved that, the greater managerial ownership, the greater financial distress.
2. Institutional ownership has a positive significant influence on the financial distress. It proved that, the greater institutional ownership, the greater financial distress.
3. Audit committee does not influence towards financial distress. It proved that, the greater or the smaller total audit committee, it will not affect the condition of financial distress.
4. Independent commissioner board has a significant influence towards financial distress. It proved that, rate the higher proportion of independent commissioners will be very influential to the lower of probability a company experiences financial distress.
5. Firm size does not influence towards financial distress. It proved that, the big company or newly developing of the company, it will not affect the condition of financial distress.

6. Sales growth does not influence towards financial distress. It proved that, the amount of sales growth will not affect the conditions of financial distress.

## 5.2.Limitations

1. This research only uses a sample companies that are in the mining sector. So, the result cannot be applied to other sectors.
2. This research is relatively short period which is only three years, then the level of accuracy of information was relatively small.

## 5.3.Recommendations

In order to overcome the research limitation as stated above, the researcher recommends the following recommendations for future research:

1. In order to the generalize the result that can uses in all sectors, the samples that uses come from multi industries
2. Longer observation period is needed to reach the accuracy of the information.
3. The future research is expected to use other measurement such as Altman model, Logistic Regression Model to assess the company's financial distress.

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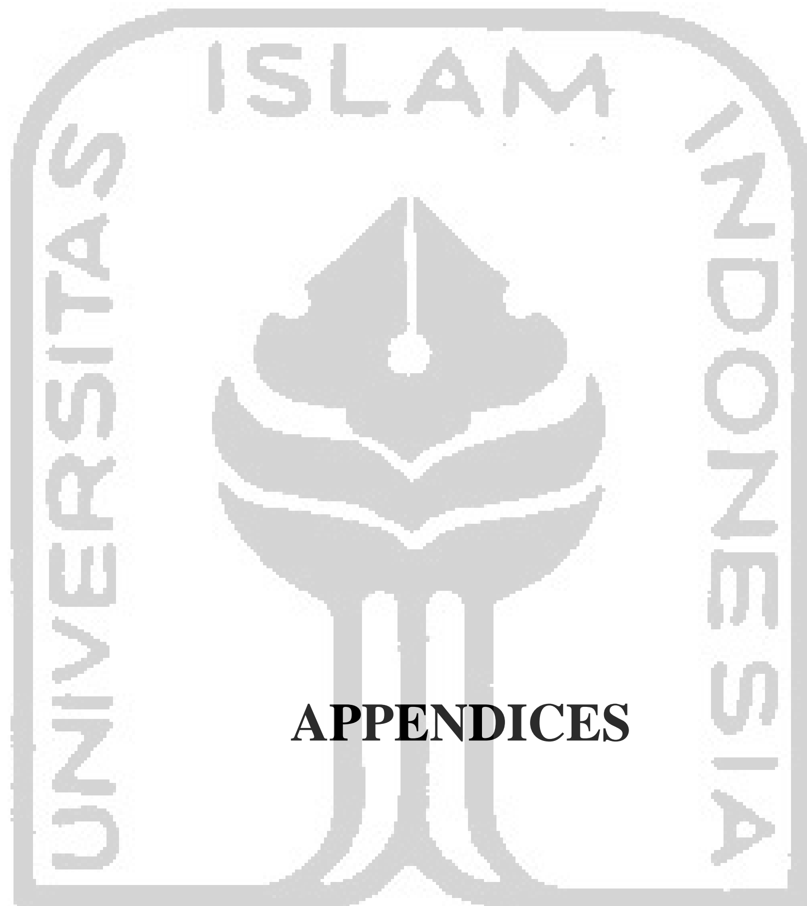

# APPENDICES

**Appendix 1- List of Mining Companies**

| | | |
|---|---|---|
| 1 | ADRO | PT. Adaro Energy Tbk |
| 2 | ANTM | PT. Aneka Tambang Tbk |
| 3 | ELSA | PT. Elnusa Tbk. |
| 4 | ARII | PT. Atlas Resources Tbk. |
| 5 | BYAN | PT. Bayan Resources Tbk. |
| 6 | PTBA | PT. Bukit Asam Tbk. |
| 7 | DOID | PT. Delta Dunia Makmur Tbk. |
| 8 | HRUM | PT. Harum Energy Tbk. |
| 9 | TOBA | PT. Toba Bara Sejahtera Tbk. |
| 10 | APEX | PT. Apexindo Pratama Duta Tbk. |
| 11 | SMMT | PT. Golden Eagle Energy Tbk. |
| 12 | ITMG | PT. Indo Tambangraya Megah Tbk. |
| 13 | KKGI | PT. Resource Alam Indonesia Tbk. |
| 14 | INDY | PT. Indika Energy Tbk. |
| 15 | BORN | PT. Borneo Lumbung Energi Dan Metal Tbk. |
| 16 | DEWA | PT. Darma Henwa Tbk. |
| 17 | ENRG | PT. Energi Mega Persada Tbk. |
| 18 | MBAP | PT. Mitrabara Adiperdana Tbk. |
| 19 | PTRO | PT. Petrosea Tbk. |
| 20 | ESSA | PT. Surya Esa Perkasa Tbk. |

**Appendix 2 - Data used for EPS**

1. **Data of EPS output**

| NO | CODE | EPS | | |
|---|---|---|---|---|
| | | **2015** | **2016** | **2017** |
| 1 | ADRO | 0.00477 | 0.01046 | 0.01511 |
| 2 | ANTM | -120 | 3 | 5.68 |
| 3 | ELSA | 51.43 | 42.6 | 33.86 |
| 4 | ARII | -0.00838 | -0.00814 | -0.00517 |
| 5 | BYAN | -0.02 | 0.01 | 0.1 |
| 6 | PTBA | 941 | 952 | 425 |
| 7 | DOID | -0.00101 | 0.00447 | 0.00553 |
| 8 | HRUM | -0.00714 | 0.00502 | 0.01739 |
| 9 | TOBA | 0.0056 | 0.0014 | 0.0107 |
| 10 | APEX | 0.0074 | -0.0074 | -0.0385 |
| 11 | SMMT | -15.93 | -5.22 | 9.86 |

| 12 | ITMG | 0.06 | 0.12 | 0.23 |
|---|---|---|---|---|
| 13 | KKGI | 0.006 | 0.01 | 0.003 |
| 14 | INDY | -0.0086 | -0.013 | 0.0644 |
| 15 | BORN | -0.01 | 0.009 | 0.002 |
| 16 | DEWA | 0.022 | 0.024 | 0.13 |
| 17 | ENRG | -0.00469 | -0.00705 | 0.00082 |
| 18 | MBAP | 0.028 | 0.022 | 0.048 |
| 19 | PTRO | -0.0126 | -0.0079 | 0.0082 |
| 20 | ESSA | 0.0048 | 0.0003 | 0.00028 |

## 2. Dummy Data of EPS Output

| NO | CODE | FINANCIAL DISTRESS / HEALTH COMPANY | | |
|---|---|---|---|---|
| | | 2015 | 2016 | 2017 |
| 1 | ADRO | 1 | 1 | 1 |
| 2 | ANTM | 0 | 1 | 1 |
| 3 | ELSA | 1 | 1 | 1 |
| 4 | ARII | 0 | 0 | 0 |
| 5 | BYAN | 0 | 1 | 1 |
| 6 | PTBA | 1 | 1 | 1 |
| 7 | DOID | 0 | 1 | 1 |
| 8 | HRUM | 0 | 1 | 1 |
| 9 | TOBA | 1 | 1 | 1 |
| 10 | APEX | 1 | 0 | 0 |
| 11 | SMMT | 0 | 0 | 1 |
| 12 | ITMG | 1 | 1 | 1 |
| 13 | KKGI | 1 | 1 | 1 |
| 14 | INDY | 0 | 0 | 1 |
| 15 | BORN | 0 | 1 | 1 |
| 16 | DEWA | 1 | 1 | 1 |
| 17 | ENRG | 0 | 0 | 1 |
| 18 | MBAP | 1 | 1 | 1 |
| 19 | PTRO | 0 | 0 | 1 |
| 20 | ESSA | 1 | 1 | 1 |

**Appendix 3 – Data used for Managerial Ownership**

1. **Data of Outstanding Shares**

| NO | CODE | OUTSTANDING SHARES | | |
|---|---|---|---|---|
| | | 2015 | 2016 | 2017 |
| 1 | ADRO | 31,985,962,000 | 31,985,962,000 | 31,985,962,000 |
| 2 | ANTM | 24,030,764,725 | 24,030,764,725 | 24,030,764,725 |
| 3 | ELSA | 7,298,500,000 | 7,298,500,000 | 7,298,500,000 |
| 4 | ARII | 3,000,000,000 | 3,000,000,000 | 3,000,000,000 |
| 5 | BYAN | 3,333,333,500 | 3,333,333,500 | 3,333,333,500 |
| 6 | PTBA | 2,108,075,150 | 2,108,075,150 | 10,540,375,745 |
| 7 | DOID | 8,276,878,732 | 8,325,016,732 | 8,553,342,132 |
| 8 | HRUM | 2,671,003,100 | 2,640,491,700 | 2,573,765,300 |
| 9 | TOBA | 2,012,491,000 | 2,012,491,000 | 2,012,491,000 |
| 10 | APEX | 2,659,850,000 | 2,659,850,000 | 2,659,850,000 |
| 11 | SMMT | 3,150,000,000 | 3,150,000,000 | 3,150,000,000 |
| 12 | ITMG | 1,129,925,000 | 1,129,925,000 | 1,129,925,000 |
| 13 | KKGI | 1,000,000,000 | 1,000,000,000 | 5,000,000,000 |
| 14 | INDY | 5,210,192,000 | 5,210,192,000 | 5,210,192,000 |
| 15 | BORN | 17,693,000,000 | 17,693,000,000 | 17,693,000,000 |
| 16 | DEWA | 21,853,733,792 | 21,853,733,792 | 21,853,733,792 |
| 17 | ENRG | 49,106,783,762 | 49,106,783,762 | 6,138,347,972 |
| 18 | MBAP | 1,227,271,952 | 1,227,271,952 | 1,227,271,952 |
| 19 | PTRO | 1,008,605,000 | 1,008,605,000 | 1,008,605,000 |
| 20 | ESSA | 1,100,000,000 | 1,100,000,000 | 11,000,000,000.00 |

## 2. Data of Shares Owned by Management

| NO | CODE | SHARES OWNED BY MANAGEMENT | | |
|---|---|---|---|---|
| | | 2015 | 2016 | 2017 |
| 1 | ADRO | 4219255248 | 4,263,235,248 | 3915354855 |
| 2 | ANTM | 623,066 | 623,066 | 172,285 |
| 3 | ELSA | 0 | 37,500 | 37,500 |
| 4 | ARII | 653,842,000 | 616217000 | 616,217,000 |
| 5 | BYAN | 2,024,995,000 | 2,025,008,600 | 2,024,958,300 |
| 6 | PTBA | 130,000 | 56,000 | 198,000 |
| 7 | DOID | 6,700,500 | 518,279,700 | 799,958,800 |
| 8 | HRUM | 375,000 | 380,000 | 300,000 |
| 9 | TOBA | 88,355,000 | 88,355,000 | 88,355,000 |
| 10 | APEX | 24,876 | 24,876 | 28,576,436 |
| 11 | SMMT | 0 | 0 | 0 |
| 12 | ITMG | 173,000 | 108,500 | 1,023,380 |
| 13 | KKGI | 3,275,000 | 3,306,800 | 17,300,900 |
| 14 | INDY | 334,404,200 | 95,262,500 | 95,512,500 |
| 15 | BORN | 0 | 0 | 0 |
| 16 | DEWA | 0 | 0 | 0 |
| 17 | ENRG | 1,734,500 | 1,734,500 | 0 |
| 18 | MBAP | 0 | 0 | 0 |
| 19 | PTRO | 106916200 | 115351900 | 117983600 |
| 20 | ESSA | 0 | 0 | 3,548,401,220 |

## 3. Data of Managerial Ownership Output

| NO | CODE | MANAGERIAL OWNERSHIP | | |
|---|---|---|---|---|
| | | 2015 | 2016 | 2017 |
| 1 | ADRO | 0.13190959 | 0.13328457 | 0 |
| 2 | ANTM | 0.00002593 | 0.00002593 | 0 |
| 3 | ELSA | 0.00000000 | 0.00000514 | 0 |
| 4 | ARII | 0.21794733 | 0 | 0.20540567 |
| 5 | BYAN | 0.60749847 | 0.60750255 | 0.60748746 |
| 6 | PTBA | 0.00006167 | 0.00002656 | 53234.22093434 |
| 7 | DOID | 0.00080954 | 0.06225569 | 10.69222831 |
| 8 | HRUM | 0 | 0.00014391 | 8579.21766667 |
| 9 | TOBA | 0.04390330 | 0 | 0 |
| 10 | APEX | 0.00000935 | 0.00000935 | 93.07843707 |
| 11 | SMMT | 0 | 0 | 0 |
| 12 | ITMG | 0.00015311 | 0 | 0 |
| 13 | KKGI | 0 | 0.00330680 | 289.00230624 |
| 14 | INDY | 0 | 0 | 0 |
| 15 | BORN | 0.00000000 | 0 | 0 |
| 16 | DEWA | 0 | 0 | 0 |
| 17 | ENRG | 0.00003532 | 0.00003532 | 0 |
| 18 | MBAP | 0 | 0 | 0 |
| 19 | PTRO | 0.10600404 | 0.11436777 | 8.54868812 |
| 20 | ESSA | 0 | 0 | 0 |

**Appendix 4 - Data used for Institutional Ownership**

1. **Data of Outstanding Shares**

| NO | CODE | OUTSTANDING SHARES | | |
|---|---|---|---|---|
| | | 2015 | 2016 | 2017 |
| 1 | ADRO | 31,985,962,000 | 31,985,962,000 | 31,985,962,000 |
| 2 | ANTM | 24,030,764,725 | 24,030,764,725 | 24,030,764,725 |
| 3 | ELSA | 7,298,500,000 | 7,298,500,000 | 7,298,500,000 |
| 4 | ARII | 3,000,000,000 | 3,000,000,000.00 | 3,000,000,000.00 |
| 5 | BYAN | 3,333,333,500 | 3,333,333,500 | 3,333,333,500 |
| 6 | PTBA | 2,108,075,150 | 2,108,075,150 | 10,540,375,745 |
| 7 | DOID | 8,276,878,732 | 8,325,016,732 | 8,553,342,132 |
| 8 | HRUM | 2,671,003,100 | 2,640,491,700 | 2,573,765,300 |
| 9 | TOBA | 2,012,491,000 | 2,012,491,000 | 2,012,491,000 |
| 10 | APEX | 2,659,850,000 | 2,659,850,000 | 2,659,850,000 |
| 11 | SMMT | 3,150,000,000 | 3,150,000,000 | 3,150,000,000 |
| 12 | ITMG | 1,129,925,000 | 1,129,925,000 | 1,129,925,000 |
| 13 | KKGI | 1,000,000,000 | 1,000,000,000 | 5,000,000,000 |
| 14 | INDY | 5,210,192,000 | 5,210,192,000 | 5,210,192,000 |
| 15 | BORN | 17,693,000,000 | 17,693,000,000 | 17,693,000,000 |
| 16 | DEWA | 21,853,733,792 | 21,853,733,792 | 21,853,733,792 |
| 17 | ENRG | 49,106,783,762 | 49,106,783,762 | 6,138,347,972 |
| 18 | MBAP | 1,227,271,952 | 1,227,271,952 | 1,227,271,952 |

| 19 | PTRO | 1,008,605,000 | 1,008,605,000 | 1,008,605,000 |
|---|---|---|---|---|
| 20 | ESSA | 1,100,000,000 | 1,100,000,000 | 11,000,000,000.00 |

2. **Data of Shares Owned by Institution**

| NO | CODE | SHARES OWNED BY INSTITUTION | | |
|---|---|---|---|---|
| | | **2015** | **2016** | **2017** |
| 1 | ADRO | 14,045,425,500 | 14,045,425,500 | 14,045,425,500 |
| 2 | ANTM | 15,619,999,999 | 15,619,999,999 | 15,619,999,999 |
| 3 | ELSA | 4,368,717,500 | 4,087,407,500 | 4,087,407,500 |
| 4 | ARII | 1,589,829,700 | 1,589,829,700 | 1,589,829,700 |
| 5 | BYAN | 1,142,295,500 | 1,142,295,200 | 1,142,299,700 |
| 6 | PTBA | 1,498,087,499 | 1.498.087.499 | 7,490,437,495 |
| 7 | DOID | 3,834,332,200 | 3,264,000,000 | 3,264,000,000 |
| 8 | HRUM | 1,923,222,600 | 1,992,488,700 | 2,004,594,700 |
| 9 | TOBA | 574,180,000 | 1,874,455,000 | 1,876,886,800 |
| 10 | APEX | 2,260,284,294 | 2,233,455,517 | 2,183,112,837 |
| 11 | SMMT | 2,493,567,203 | 2,304,070,203 | 2,686,195,845 |
| 12 | ITMG | 793,069,556 | 736,071,000 | 736,071,000 |
| 13 | KKGI | 648,903,500 | 648,883,500 | 3,244,417,500 |
| 14 | INDY | 3,578,859,800 | 3,578,859,800 | 3,565,859,800 |
| 15 | BORN | 11,098,953,948 | 10,527,576,948 | 10,527,576,948 |
| 16 | DEWA | 8,585,395,390 | 7,885,395,390 | 6,596,395,390 |
| 17 | ENRG | 14,166,917,504 | 15,666,485,375 | 898,278,476 |
| 18 | MBAP | 1,104,544,752 | 1,104,544,752 | 1,104,544,752 |
| 19 | PTRO | 704,014,200 | 704,014,200 | 704,014,200 |
| 20 | ESSA | 650,000,000 | 608,834,000 | 5,500,000,000 |

3. **Data of Institutional Ownership Output**

| NO | CODE | INSTITUTIONAL OWNERSHIP | | |
|---|---|---|---|---|
| | | 2015 | 2016 | 2017 |
| 1 | ADRO | 0.43911218 | 0.43911218 | 0.43911218 |
| 2 | ANTM | 0.650000122 | 0.650000122 | 0.650000122 |
| 3 | ELSA | 0.598577447 | 0.560033911 | 0 |
| 4 | ARII | 0.529943233 | 0 | 0.529943233 |
| 5 | BYAN | 0 | 0.342688543 | 0.342689893 |
| 6 | PTBA | 0.71064236 | 0 | 0.71064236 |
| 7 | DOID | 0.463258231 | 0.392071284 | 0.381605219 |
| 8 | HRUM | 0 | 0.754590026 | 0.778856837 |
| 9 | TOBA | 0.285308108 | 0.931410376 | 0.93261873 |
| 10 | APEX | 0 | 0 | 0.820765395 |
| 11 | SMMT | 0 | 0.731450858 | 0 |
| 12 | ITMG | 0.70187805 | 0.651433502 | 0.651433502 |
| 13 | KKGI | 0.6489035 | 0.6488835 | 0 |
| 14 | INDY | 0.686895953 | 0.686895953 | 0 |
| 15 | BORN | 0.627307633 | 0 | 0.595013675 |
| 16 | DEWA | 0.392857142 | 0 | 0.301842946 |
| 17 | ENRG | 0.288492066 | 0.319028944 | 0.1463388 |
| 18 | MBAP | 0.899999996 | 0.899999996 | 0.899999996 |
| 19 | PTRO | 0.698007843 | 0.698007843 | 0.698007843 |
| 20 | ESSA | 0.590909091 | 0 | 0 |

## Appendix 5 - Data Used for Audit Committee

| NO | CODE | AUDIT COMMITTEE | | |
|---|---|---|---|---|
| | | 2015 | 2016 | 2017 |
| 1 | ADRO | 3 | 3 | 3 |
| 2 | ANTM | 4 | 4 | 4 |
| 3 | ELSA | 4 | 3 | 3 |
| 4 | ARII | 2 | 3 | 3 |
| 5 | BYAN | 3 | 4 | 4 |
| 6 | PTBA | 4 | 3 | 3 |
| 7 | DOID | 3 | 3 | 3 |
| 8 | HRUM | 3 | 3 | 3 |
| 9 | TOBA | 3 | 3 | 3 |
| 10 | APEX | 3 | 3 | 3 |
| 11 | SMMT | 3 | 3 | 3 |
| 12 | ITMG | 3 | 3 | 3 |
| 13 | KKGI | 3 | 3 | 3 |
| 14 | INDY | 3 | 3 | 3 |
| 15 | BORN | 2 | 1 | 1 |
| 16 | DEWA | 3 | 3 | 3 |
| 17 | ENRG | 3 | 3 | 3 |
| 18 | MBAP | 3 | 3 | 3 |
| 19 | PTRO | 3 | 3 | 3 |
| 20 | ESSA | 3 | 3 | 3 |

## Appendix 6 - Data Used for Independent Commissioner Board

### 1. Data of Board of Commissioners

| NO | CODE | Board of Commissioners | | |
|---|---|---|---|---|
| | | 2015 | 2016 | 2017 |
| 1 | ADRO | 5 | 5 | 5 |
| 2 | ANTM | 6 | 6 | 6 |
| 3 | ELSA | 5 | 5 | 5 |
| 4 | ARII | 6 | 6 | 5 |
| 5 | BYAN | 5 | 5 | 5 |
| 6 | PTBA | 6 | 6 | 6 |
| 7 | BUMI | 3 | 3 | 8 |
| 8 | DOID | 7 | 7 | 6 |
| 9 | HRUM | 6 | 6 | 6 |
| 10 | TOBA | 3 | 3 | 5 |
| 11 | APEX | 3 | 3 | 3 |
| 12 | SMMT | 4 | 5 | 3 |
| 13 | ITMG | 6 | 5 | 7 |
| 14 | KKGI | 5 | 5 | 5 |
| 15 | INDY | 6 | 4 | 4 |
| 16 | BORN | 2 | 2 | 2 |
| 17 | DEWA | 6 | 6 | 5 |
| 18 | ENRG | 4 | 4 | 4 |
| 19 | MBAP | 3 | 3 | 3 |
| 20 | PTRO | 5 | 5 | 5 |
| 21 | ESSA | 4 | 4 | 4 |

## 2. Data of Independent Commissioner Board

| NO | CODE | Independent Commissioners Board | | |
|---|---|---|---|---|
| | | 2015 | 2016 | 2017 |
| 1 | ADRO | 2 | 2 | 2 |
| 2 | ANTM | 2 | 2 | 2 |
| 3 | ELSA | 2 | 2 | 2 |
| 4 | ARII | 2 | 2 | 2 |
| 5 | BYAN | 2 | 2 | 2 |
| 6 | PTBA | 1 | 1 | 1 |
| 7 | DOID | 3 | 3 | 3 |
| 8 | HRUM | 2 | 2 | 2 |
| 9 | TOBA | 2 | 2 | 2 |
| 10 | APEX | 2 | 2 | 1 |
| 11 | SMMT | 3 | 3 | 1 |
| 12 | ITMG | 2 | 2 | 2 |
| 13 | KKGI | 2 | 2 | 2 |
| 14 | INDY | 2 | 2 | 2 |
| 15 | BORN | 1 | 1 | 1 |
| 16 | DEWA | 2 | 2 | 2 |
| 17 | ENRG | 2 | 2 | 2 |
| 18 | MBAP | 1 | 1 | 1 |
| 19 | PTRO | 2 | 2 | 2 |
| 20 | ESSA | 1 | 1 | 1 |

### 3. Data output of Independent Commissioner Board

| NO | CODE | Independent Commissioner Board | | |
|---|---|---|---|---|
| | | 2015 | 2016 | 2017 |
| 1 | ADRO | 0.4 | 0.4 | 0.4 |
| 2 | ANTM | 0.333333333 | 0.333333333 | 0.333333333 |
| 3 | ELSA | 0.4 | 0.4 | 0.4 |
| 4 | ARII | 0.333333333 | 0.333333333 | 0.4 |
| 5 | BYAN | 0.4 | 0.4 | 0.4 |
| 6 | PTBA | 0.166666667 | 0.166666667 | 0.166666667 |
| 7 | DOID | 0.428571429 | 0.428571429 | 0.5 |
| 8 | HRUM | 0.333333333 | 0.333333333 | 0.333333333 |
| 9 | TOBA | 0.666666667 | 0.666666667 | 0.4 |
| 10 | APEX | 0.666666667 | 0.666666667 | 0.333333333 |
| 11 | SMMT | 0.75 | 0.6 | 0.333333333 |
| 12 | ITMG | 0.333333333 | 0.4 | 0.285714286 |
| 13 | KKGI | 0.4 | 0.4 | 0.4 |
| 14 | INDY | 0.333333333 | 0.5 | 0.5 |
| 15 | BORN | 0.5 | 0.5 | 0.5 |
| 16 | DEWA | 0.333333333 | 0.333333333 | 0.4 |
| 17 | ENRG | 0.5 | 0.5 | 0.5 |
| 18 | MBAP | 0.333333333 | 0.333333333 | 0.333333333 |
| 19 | PTRO | 0.4 | 0.4 | 0.4 |
| 20 | ESSA | 0.25 | 0.25 | 0.25 |

**Appendix 7 - Data used for Firm Size**

1. **Data of Total Asset**

| NO | CODE | Total Asset | | |
|---|---|---|---|---|
| | | 2015 | 2016 | 2017 |
| 1 | ADRO | 5,958,629 | 6,522,257 | 6,814,147 |
| 2 | ANTM | 30,356,850,890 | 29,981,535,812 | 30,014,273,452 |
| 3 | ELSA | 4,407,513 | 4,190,956 | 4,855,369 |
| 4 | ARII | 351,484 | 330,115 | 327,055 |
| 5 | BYAN | 937,851,728 | 824,686,661 | 888,813,140 |
| 6 | PTBA | 16,894,043 | 18,576,774 | 21,987,482 |
| 7 | DOID | 831,794,061 | 882,275,704 | 945,581,412 |
| 8 | HRUM | 380,654,005 | 413,365,853 | 459,443,071 |
| 9 | TOBA | 282,371,637 | 261,588,159 | 348,338,028 |
| 10 | APEX | 704,269,307 | 682,374,240 | 577,634,595 |
| 11 | SMMT | 539,855,557,865 | 579,261,331,272 | 696,760,806,331 |
| 12 | ITMG | 1,178,363 | 1,209,792 | 1,358,663 |
| 13 | KKGI | 98,541,575 | 98,708,750 | 105,053,598 |
| 14 | INDY | 979,447,458 | 939,776,871 | 1,655,680,656 |
| 15 | BORN | 922,562,012 | 931,197,513 | 989,080,017 |
| 16 | DEWA | 372,974,932 | 381,339,706 | 401,800,150 |
| 17 | ENRG | 1,516,927,641 | 1,061,976,819 | 756,601,756 |
| 18 | MBAP | 82,029,013 | 89,523,426 | 130,832,226 |

| 19 | PTRO | 425,368 | 393,425 | 436,844 |
|---|---|---|---|---|
| 20 | ESSA | 182,070,312 | 199,467,439 | 202,004,090 |

## 2. Data output of Firm Size

| NO | CODE | Firm Size | | |
|---|---|---|---|---|
| | | 2015 | 2016 | 2017 |
| 1 | ADRO | 6.775146346 | 6.814397908 | 6.833411498 |
| 2 | ANTM | 10.48225672 | 10.47685388 | 10.47732783 |
| 3 | ELSA | 6.644193602 | 6.622313101 | 6.686222241 |
| 4 | ARII | 5.54590556 | 5.518665259 | 5.514620793 |
| 5 | BYAN | 8.972134183 | 8.91628897 | 8.948810466 |
| 6 | PTBA | 7.227733595 | 7.268970298 | 7.342175497 |
| 7 | DOID | 8.920015815 | 8.94560432 | 8.975698926 |
| 8 | HRUM | 8.580530404 | 8.616334598 | 8.662231706 |
| 9 | TOBA | 8.450821072 | 8.417618081 | 8.542000889 |
| 10 | APEX | 8.847738762 | 8.834022624 | 8.761653196 |
| 11 | SMMT | 11.73227758 | 11.76287454 | 11.84308371 |
| 12 | ITMG | 6.071279097 | 6.082710708 | 6.133111749 |
| 13 | KKGI | 7.993619499 | 7.994355652 | 8.021410931 |
| 14 | INDY | 8.990981143 | 8.973024752 | 9.218976575 |
| 15 | BORN | 8.964995568 | 8.969041807 | 8.995231428 |
| 16 | DEWA | 8.571679643 | 8.581312027 | 8.604010095 |
| 17 | ENRG | 9.180964865 | 9.026115037 | 8.878867345 |
| 18 | MBAP | 7.913967486 | 7.951936694 | 8.116714731 |
| 19 | PTRO | 5.628764815 | 5.594861953 | 5.640326375 |
| 20 | ESSA | 8.260239136 | 8.299872012 | 8.305360163 |

## Appendix 8 – Data used for Sales Growth

### 1. Data of Net Sales

| NO | CODE | NET SALES | | | |
|---|---|---|---|---|---|
| | | 2014 | 2015 | 2016 | 2017 |
| 1 | ADRO | 3,325,444.00 | 2,684,476.00 | 2,524,239.00 | 3,258,333.00 |
| 2 | ANTM | 5,230,179,753.00 | 5,300,250,378.00 | 2,854,029,178.00 | 5,342,086,770.00 |
| 3 | ELSA | 4,221,172.00 | 3,775,323.00 | 3,620,570.00 | 4,978,986.00 |
| 4 | ARII | 21,209,000.00 | 24,980,000 | 11,641,000 | 28,731,000 |
| 5 | BYAN | 828,259,942.00 | 465,007,423.00 | 555,483,921.00 | 1,067,376,037.00 |
| 6 | PTBA | 13,077,962.00 | 13,733,627.00 | 14,058,869.00 | 19,471,030.00 |
| 7 | DOID | 607,426,558.00 | 565,615,288.00 | 611,231,812.00 | 764,608,154.00 |
| 8 | HRUM | 477,643,910.00 | 249,328,849.00 | 217,121,593.00 | 325,599,861.00 |
| 9 | TOBA | 499,965,642.00 | 348,662,183.00 | 258,271,601.00 | 310,709,476.00 |
| 10 | APEX | 249,325,833.00 | 246,286,442.00 | 105,176,356.00 | 74,475,065.00 |
| 11 | SMMT | 8,932,749,050.00 | 28,770,043,945.00 | 56,064,913,975.00 | 57,637,418,578.00 |
| 12 | ITMG | 1,942,655.00 | 1,589,409.00 | 1,367,498.00 | 1,689,525.00 |
| 13 | KKGI | 135,766,894.00 | 111,011,540.00 | 92,636,624.00 | 83,764,246.00 |
| 14 | INDY | 1,109,508,311.00 | 1,097,296,489.00 | 87,565,563.00 | 284,801,729.00 |
| 15 | BORN | 85,338,894.00 | 72,522,259.00 | 133,616,667.00 | 241,774,069.00 |
| 16 | DEWA | 234,664,122.00 | 240,123,973.00 | 259,095,490.00 | 242,790,874.00 |
| 17 | ENRG | 811,483,362.00 | 624,183,079.00 | 524,569,898.00 | 316,971,601.00 |
| 18 | MBAP | 128,818,187.00 | 219,113,608.00 | 187,155,820.00 | 258,586,097.00 |
| 19 | PTRO | 347,968,000.00 | 206,834,000.00 | 209,370,000.00 | 259,868,000.00 |
| 20 | ESSA | 39,933,037.00 | 40,500,314.00 | 29,081,280.00 | 33,704,104.00 |

### 2. Data output of Sales Growth

| NO | CODE | SALES GROWTH | | |
|---|---|---|---|---|
| | | 2015 | 2016 | 2017 |
| 1 | ADRO | (0.24) | (0.06) | 0.23 |
| 2 | ANTM | 0.01 | (0.86) | 0.47 |
| 3 | ELSA | (0.12) | (0.04) | 0.27 |
| 4 | ARII | 0.15 | (1.15) | 0.59 |
| 5 | BYAN | (0.78) | 0.16 | 0.48 |
| 6 | PTBA | 0.05 | 0.02 | 0.28 |

| | | | | |
|---|---|---|---|---|
| 7 | DOID | (0.07) | 0.07 | 0.20 |
| 8 | HRUM | (0.92) | (0.15) | 0.33 |
| 9 | TOBA | (0.43) | (0.35) | 0.17 |
| 10 | APEX | (0.01) | (1.34) | (0.41) |
| 11 | SMMT | 0.69 | 0.49 | 0.03 |
| 12 | ITMG | (0.22) | (0.16) | 0.19 |
| 13 | KKGI | (0.22) | (0.20) | (0.11) |
| 14 | INDY | (0.01) | (11.53) | 0.69 |
| 15 | BORN | (0.18) | 0.46 | 0.45 |
| 16 | DEWA | 0.02 | 0.07 | (0.07) |
| 17 | ENRG | (0.30) | (0.19) | (0.65) |
| 18 | MBAP | 0.41 | (0.17) | 0.28 |
| 19 | PTRO | (0.68) | 0.01 | 0.19 |
| 20 | ESSA | 0.01 | (0.39) | 0.14 |

## Appendix 9 – Multiple Regression Analysis

**Descriptive Statistics**

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| MANOWN | 60 | .00 | .60 | .0809 | .15558 |
| INSOWN | 60 | .28 | .93 | .6085 | .15724 |
| AUCOM | 60 | 1.00 | 4.00 | 3.0000 | .52076 |
| INDEPCOM | 60 | .10 | .76 | .4033 | .14771 |
| FIRMSIZE | 60 | 5.51 | 11.84 | 8.1557 | 1.57529 |
| SALESGROWTH | 60 | -11.53 | .70 | -.2017 | 1.55094 |
| FD | 60 | .00 | 1.00 | 38.74 | 179.5857 |
| Valid N (listwise) | 60 | | | | |

**Variables Entered/Removedb**

| Model | Variables Entered | Variables Removed | Method |
|---|---|---|---|
| 1 | X6, X3, X5, X2, X1, X4[a] | . | Enter |

a. All requested variables entered.

b. Dependent Variable: Y

**One-Sample Kolmogorov-Smirnov Test**

| | | Unstandardized Residual |
|---|---|---|
| N | | 60 |
| Normal Parameters[a] | Mean | .0000000 |
| | Std. Deviation | 3.33604421 |
| Most Extreme Differences | Absolute | .100 |
| | Positive | .073 |
| | Negative | -.100 |

**Variables Entered/Removedb**

| Model | Variables Entered | Variables Removed | Method |
|---|---|---|---|
| 1 | X6, X3, X5, X2, X1, X4[a] | . | Enter |

| | |
|---|---|
| Kolmogorov-Smirnov Z | .777 |
| Asymp. Sig. (2-tailed) | .582 |

a. Test distribution is Normal.

**Model Summary[b]**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|---|---|---|---|---|---|
| 1 | .503[a] | .253 | .168 | 3.51982 | 2.168 |

a. Predictors: (Constant), X6, X3, X5, X2, X1, X4

b. Dependent Variable: Y

**ANOVA[b]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 222.131 | 6 | 37.022 | 2.988 | .014[a] |
| | Residual | 656.622 | 53 | 12.389 | | |
| | Total | 878.753 | 59 | | | |

a. Predictors: (Constant), X6, X3, X5, X2, X1, X4

b. Dependent Variable: Y

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | -.239 | 4.255 | | -.056 | .955 |
| | X1 | 10.682 | 3.181 | .431 | 3.358 | .001 |
| | X2 | 7.046 | 3.196 | .287 | 2.205 | .032 |
| | X3 | -.176 | .925 | -.024 | -.191 | .850 |
| | X4 | -9.013 | 3.387 | -.345 | -2.661 | .010 |
| | X5 | .075 | .297 | .031 | .254 | .801 |
| | X6 | .229 | .297 | .092 | .772 | .443 |

a. Dependent Variable: Y

**Residuals Statistics[a]**

| | Minimum | Maximum | Mean | Std. Deviation | N |
|---|---|---|---|---|---|
| Predicted Value | -4.5030 | 6.1111 | 1.3180 | 1.94034 | 60 |
| Residual | -9.31849 | 9.37419 | .00000 | 3.33604 | 60 |
| Std. Predicted Value | -3.000 | 2.470 | .000 | 1.000 | 60 |
| Std. Residual | -2.647 | 2.663 | .000 | .948 | 60 |

a. Dependent Variable: Y