CHAPTER I

INTRODUCTION

1.1   Background of Study

Every company, big or small, can suffer financial distress. Financial distress can be dangerous if it occurs for several years because it can make the company liquidate or go bankrupt. Bankruptcy is when a company does not have enough money to manage the wheels of the business due to the insolvency of the company's management, for example, when the company's liabilities are too large and greater than its current assets. Therefore the company needs to predict bankruptcy as quickly as possible to reduce the possibility of company bankruptcy.

The financial health of coal mining companies is also one of the business sectors that is quite interesting to research because Indonesia is one of the richest countries in natural resources and minerals, and one of them is coal. Coal is a fossil fuel that has an essential role as a power plant. Besides functioning as a power plant, coal can also be used as fuel to produce steel and cement (Piscestalia & Priyadi, 2019) Indonesia is the world's fourth largest coal exporter. Indonesia's largest coal produced is Kalimantan, with 549 million tons mined (Kompas, 2020).

A country's economic growth also greatly affects a company's economic health. If a country experiences an economic crisis, then companies in that country are also likely to experience financial distress. Indonesia's economic growth in 2020 of -2.06 was the lowest in 2017-2021 (see Figure 1.1). Indonesia's GDP plummeted compared to 2019, which grew by 5.02%. This is the worst since the 1998 crisis,

which decline by -13.16%. This is a result of COVID-19's unfavorable effects. that is felt throughout the global economy, including in Indonesia (CNN Indonesia, 2021).
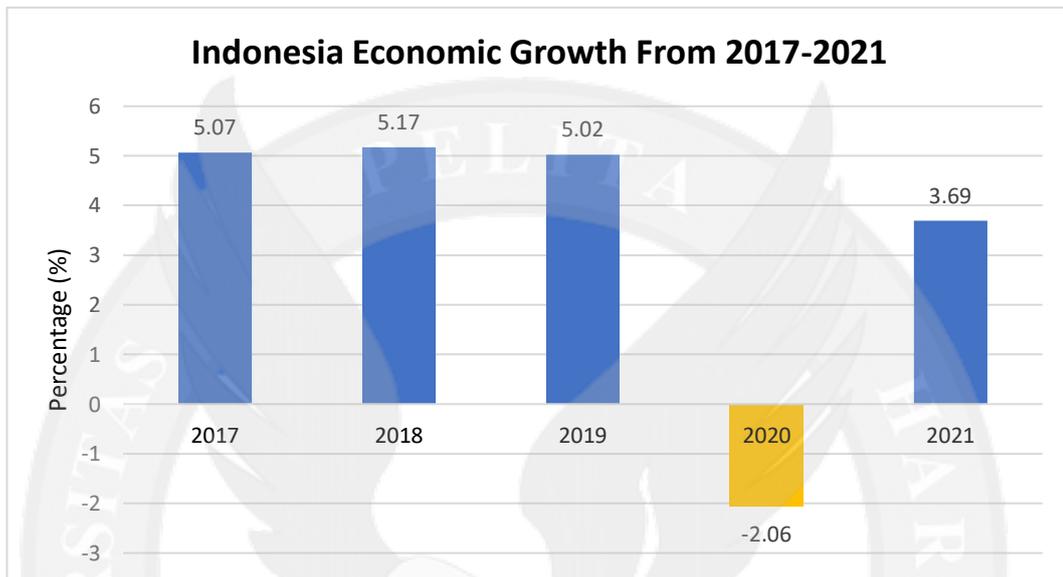

Figure 1. 1 Indonesia Economic Growth Rate 2017-2021
Source: The World Bank (2022)

This situation makes competition between companies in one country and another more intense. Such intense competition makes the company's management improve and adjust to the current state of the economy. Because of this situation, Indonesian enterprises must enhance their management basics. Because if the company cannot adapt, then the company could go into bankruptcy. This also applies to mining companies, especially coal sub-sectors in Indonesia.

Indonesia Coal Price Chart from 2017-2021 (see Figure 1.2) continuously decreased from 2018 to 2020. The data showed that the reference coal price fluctuated wildly throughout 2020. The Reference Coal Price in September 2020 was the lowest from 2017 to 2021, which is 48.42 USD per ton. The Covid-19 epidemic was the reason behind the reference coal price in September 2020 was the

lowest and the global market's high coal stocks due to the demand decline in several coal importing countries. In addition, the decline in Indonesia coal prices was also triggered by the policies of China and India, which prioritized using domestically produced coal (Liputan6, 2020).

Figure 1. 2 Indonesia Coal Price From 2017-2021
Source: Ministry of Energy and Mineral Resources (2022)

After experiencing a decline from 2018 to 2020, In November 2021, the Minister of Energy and Mineral Resources set the Reference Coal Price at the Highest Level of 215.01 USD Per Ton. which has been the highest from 2017-2021. This happened because the demand for coal in China continued to increase following the onset of winter and bad weather conditions, which caused disruptions to coal production and transportation in China's state coal-producing provinces. In addition to the high demand from China, other commodity factors, such as rising natural gas prices, influence global coal prices (Kompas, 2021).

Based on the description above, it can be said that the decline in the reference price of coal that occurred from 2018 to 2020 affected the profitability of

the company. Because of the low price of coal, it cannot cover high production costs. If this keeps up happen, the business will undoubtedly experience financial distress, which could result in bankruptcy because the decline in coal prices in a few years will impact the company's financial performance. So, predicting financial distress is a strategy to avoid a company going bankrupt. This is why the writer examines the financial distress of coal companies.

Furthermore, To avoid bankruptcy of a company, there are several financial distress model analysis that can be an early warning for the company, namely Altman, Zmijwski, Grover, Ohlson, Fulmer, Springate, Shumway Hazard model and these models have different accuracy based on the measurement used (Elviani et al. 2020). But in this research the writer only use Altman, Grover and Zmijewski models among several financial distress predictions model, due the large number of accounting researchers and academic using these models in predicting financial distress and all models have a high level of accuracy in predicting the financial distress, and all these models are also relatively easier to apply and analyze the financial distress (Wulandari & Fauzi, 2022) . So, it can be very useful. In addition, Previous researches have examined several models for predicting financial distress, but there were inconsistencies in the results. Edi & Tania (2018) claimed that Grover, Springate, Zmijwski and Altman models have a significant effect in predicting financial distress, the best model is Zmijewski. Primasari (2018) claimed that Grover doesn't have significant impact in predicting the financial distress. Elviani et al. (2020) Claimed that altman and springate can predict financial distress, but zmijewski can't predict financial distress. Seto & Trisnaningsih (2021) Claimed

that the Altman, Springate, and Zmijewski models have a significant effect in predicting financial distress and the most appropriate is Altman.

This research will analyze three financial distress prediction models, Altman, Grover, and Zmijewski to predict Indonesia's Coal companies' financial distress to prevent bankruptcy and analyze whether Altman, Grover, and Zmijewski models have a significant effect in predicting the financial distress of coal companies listed on the Indonesia Stock Exchange from 2017 to 2021. Based on the research above, the writer decided to research with the title **"THE EFFECT OF ALTMAN, GROVER AND ZMIJEWSKI MODELS IN PREDICTING THE FINANCIAL DISTRESS OF COAL COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE."**

1.2   Problem Limitation

This research has several limitations, such as the prediction models used, the research object, and the research period. There are several financial prediction models such as Altman, Grover, Fulmer, Springate, Ohlson, Zmijewski Models, etc. But this research only uses the Altman, Grover, and Zmijewski models in predicting financial distress of coal companies. This research will only focus on the coal companies Listed on the IDX. In addition, the period of this research is limited from 2017-2021.

1.3   Problem Formulation

Based on the above research background, the problem formulation of the research is as follows:

1. Does the Altman model partially have a significant effect in predicting the financial distress of coal companies listed on the Indonesia Stock Exchange?

2. Does the Grover model partially have a significant effect in predicting the financial distress of coal companies listed on the Indonesia Stock Exchange?

3. Does the Zmijewski model partially have a significant effect in predicting the financial distress of coal companies listed on the Indonesia Stock Exchange?

4. Do Altman, Grover,and Zmijewski models simultaneously have a significant effect in predicting the financial distress of coal companies listed on the Indonesia Stock Exchange?

1.4   Objectives of the Research

The objective of the research to solve the problem that has been found is as follows:

1. To analyze whether the Altman model partially has a significant effect in predicting the financial distress of coal companies listed on the Indonesia Stock Exchange.

2. To analyze whether the Grover model partially has a significant effect in predicting the financial distress of coal companies listed on the Indonesia Stock Exchange.

3. To analyze whether the Zmijewski model partially has a significant effect in predicting the financial distress of coal companies listed on the Indonesia Stock Exchange.

4. To analyze whether Altman, Grover,and Zmijewski models simultaneously have a significant effect in predicting the financial distress of coal companies listed on the Indonesia Stock Exchange

1.5   Benefits of the Research

This research will be divided into two kinds of benefits, which are the theoretical and practical benefit

1.5.1   Theoretical Benefit

For Researchers, this research is expected to make researchers understand the Effect of Altman, Grover and Zmijewski in predicting financial to be better.

For Academicians, this research is expected to increase knowledge about financial distress, especially for financial accounting majors. In addition, this research is expected to be used for further research on financial distress

1.5.2   Practical Benefit

For the company, this research is expected to enhance the company's understanding of financial distress analysis to help the company in the future in making decisions that prevent bankruptcy. by using financial distress model prediction such as Altman, Grover, and Zmijewski.

For Stakeholders, this research is expected to help investors analyze financial distress using some financial distress prediction models like Altman,

Grover, and Zmijewski models. So, the investor can decide whether to invest in a company or not.