

CHAPTER I

INTRODUCTION

1.1. Background of the Study

The value of a company can be a consideration for investors to assess whether a company is managing its business well or poorly (Faizah, 2022). A company's valuation can be assessed through its stock price, which reflects investor demand and supply for its shares as well as public perception of its financial performance. When a company's value is high, it indicates strong investor confidence, suggesting that the company is seen as profitable. This understanding arises because profitability can be a benchmark for return on investment. However, the sustainability of a company's operational activities is not only determined by profitability but also by other factors such as financial performance, social justice concentration, and responsibility for the sustainability of the company's surrounding environment. In the corporate realm, maintaining a positive reputation and image holds significant importance for stakeholders as it directly influences the organization's success and its ability to thrive.

The worst land and forest fires happened in Indonesia in 2015. Southeast Asia is experiencing extreme haze because of the burning of almost 1.6 million hectares of land and forest, which is 27 times the area of Jakarta (CNBC Indonesia, 2023). In Indonesia, wildfire pose a major threat to the environment since they destroy forests and ecosystems and release a large amount of greenhouse gases. Climate change and land-use changes are causes of frequent forest fires. In

Indonesia, the general impact of El Nino is dry conditions and reduced rainfall, increasing the potential for land and forest fire disasters.

The high carbon footprint that potentially increases global temperatures leads to rising sea levels. Indonesia, as an archipelagic country, is vulnerable to rising sea levels, causing floods, coastal erosion, and habitat loss. The Meteorology, Climatology, and Geophysics Agency (BMKG) estimates that sea levels in Indonesia will rise by 20 to 30 cm by 2100. Additionally, climate change can have negative impacts on agriculture in Indonesia. The National Food Agency estimates that climate change could cause a 20% decrease in rice production by 2030.

Based on these cases, the Indonesian government is aware that climate change poses a serious threat to the country. Therefore, Indonesia has taken steps to address climate change, including signing the Paris Agreement in 2016. In this agreement, all parties consider the principle of common but differentiated responsibilities and respective capabilities. Under the Paris Agreement, Indonesia has committed to unconditionally reducing its greenhouse gas emissions by 29% and conditionally up to 41% by the year 2030, compared to a business-as-usual scenario. Indonesia is also committed to increasing its forest cover and reducing its deforestation rate.

However, Indonesia still faces challenges in meeting its Paris Agreement commitments. According to the Ember Climate report titled Global Electricity Review (2023), Indonesia ranks ninth with the largest number of emissions, namely 192.7 mtCO₂. Until now, Indonesia has not been able to break free from its

dependence on coal, especially to meet the needs of electricity generation, given that the demand for coal for steam power plants is predicted to increase until 2030.

In the year 2023, extreme weather triggered by climate change caused a temperature rise in Indonesia that continues to break records. Citing data from the Extreme Climate Change, based on the analysis of 116 BMKG observation stations, the average air temperature in September 2023 was 27 degrees Celsius. Meanwhile, the normal climatological air temperature in Indonesia for September from 1991 to 2020 was 26.6 degrees Celsius, with the normal temperature range being 20.1 to 28.6 degrees Celsius. Additionally, Statistica data shows that the average temperature in Indonesia has been consistently increasing since 1985.

Air pollution in Indonesia is increasingly threatening the people, forcing them to breathe polluted air. Pollution, which is part of the carbon produced and consists of hundreds of different chemicals, not only causes dirty air but can also lead to hot air and fires. There are numerous forest and land fires in Indonesia every year, considering that Indonesian forests account for 62.97% of the total land area in the country (Berita UGM, 2023). On October 27, 2023, through Media Indonesia (2023), the Mount Merbabu National Park Agency (BTNGMb) released information that the forest and land areas on the slopes of Mount Merbabu were affected by a fire that surged to reach 848.5 hectares. The flames spread in three areas in Central Java, namely Semarang, Boyolali, and Magelang districts. Shortly after this event, the impact of drought due to the dry season in Way Kanan on October 29, 2023, caused 8 hectares of forest and land owned by residents in Negeri Baru Village, Umpu Semenguk District, to be completely burned (Radio Republik

Indonesia, 2023). Smoke from these forest and land fires releases CO₂ into the atmosphere, contributing to global warming and causing air pollution.

Not only in Indonesia, but forest and land fires also occur in various countries, including the United States. A forest fire disaster hit Maui Island, Hawaii, on August 12, 2023, becoming the deadliest forest fire in America in over 100 years. Additionally, forest fires also occurred in Canada, causing thick smoke haze to spread and cover areas in the United States. According to Deutsche Welle (DW), Quebec experienced about 160 forest fires, leading the New York government to issue warnings about air quality. New York City recorded an Air Quality Index (AQI) of 484, categorized as hazardous, breaking the city's highest record since the 1960s.

Therefore, the increasing level of carbon emissions is attracting special attention from various parties. The higher the CO₂ produced, the more it will contribute to rising temperatures, posing risks to various aspects of human life. Based on the results of the 43rd ASEAN Summit 2023 held in Jakarta, the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) encourages discussions on the issue of climate change. There are two challenges faced by Indonesia and ASEAN related to the acceleration strategy of reducing dependence on coal-fired power plants, fossil fuels, and promoting clean energy investment. President Joko Widodo signed Presidential Regulation No. 98 of 2021, focusing on the implementation of carbon economic value to achieve nationally determined contributions and manage greenhouse gas emissions in national

development, indicating Indonesia's serious approach to reducing carbon emissions.

The launch of the Indonesia Carbon Exchange on September 26, 2023, by President Joko Widodo marks the beginning of carbon credit trading in Indonesia (CNBC Indonesia, 2023). Carbon credits depict the efforts made to absorb potential carbon emissions and are created by emission reduction project developers, such as the construction of power plants using renewable energy, long-term forest conservation, waste management, and more. Indonesia is taking action against climate change, as evidenced by the establishment of the Indonesia Carbon Exchange, given that the nation is among those most susceptible to its effects. Those who reduce carbon emissions can sell the carbon credits they generate on the carbon exchange. Buyers of carbon credits are entities that produce large amounts of carbon emissions, aiming to balance the emission limits set by the government. This condition creates a supply and demand for carbon credits with fluctuating prices, similar to stocks.

In Indonesia, several issuers benefit from carbon exchange trading, and the value of their stocks increases every day. PT Pertamina Geothermal Energy Tbk (PGEO), which recently had an Initial Public Offering (IPO) in early 2023, claims to have generated revenue from carbon credits since last year, amounting to IDR 11.13 billion, contributing about 0.19% of total revenue in 2022.

According to the prospectus data, PT Barito Renewables Energy (BREN) recorded revenue from carbon credit sales amounting to US\$ 3.6 million or

equivalent to 0.6% of total revenue throughout 2022. Next is PT Kencana Energi Lestari Tbk (KEEN), which successfully sold carbon credits and achieved sales revenue of IDR 5 billion in the international market. The supply and demand from sellers and buyers of carbon credits make the potential for the carbon exchange in Indonesia significant, attracting many investors to buy carbon credits.

The issuance of green bonds in Indonesia also attracts a lot of investor interest. Although, up to now, the issuance of green bonds has been mainly focused on the banking sector, it is not impossible for companies in the geothermal or mini-hydro power generation and other renewable energy sectors to issue green bonds for financing green infrastructure (Investasi Kontan, 2023). The coupons offered by green bonds are slightly lower than regular bonds. This happens due to supply limitations, while demand is high.

Companies actively participating in the carbon exchange can provide various benefits, both in terms of compliance and reputation, as well as investment. Compliance benefits come from adherence to regulations, including credibility and a positive reputation in the eyes of customers and investors. Therefore, the public is more likely to choose companies that comply with environmental regulations. Investors can achieve more profit by investing in the carbon exchange. This is because many companies still do not see the urgency of the carbon exchange. Therefore, companies that adopt initiatives related to carbon emissions early will have a competitive advantage and greater attractiveness to investors.

Businesses account for the majority of carbon emissions since they are the fundamental units of the national economy (He et al., 2022). Companies have an interest in disclosing relevant information about their social and environmental activities not only to shareholders but also to other stakeholders to influence the sustainability reputation of their business in the future. Companies provide sustainability reports, which demonstrate that they are actively carrying out their social obligations, such as environmental protection, for investors to review.

Meanwhile, assessing environmental risks, leveraging opportunities, and enhancing the company's value can all be facilitated through the utilization of carbon information disclosure (Yan and Chen, 2017). It will be used by companies to signal their commitment to low-carbon business practices. Through carbon information disclosure, investors can know the amount of carbon emissions produced by the company, the company's strategies to reduce carbon emissions, and the company's climate change policies, which are very helpful for assessing the risks and opportunities related to climate change for the company. Some countries in the world have required every issuer in their country to disclose carbon emissions. However, the implementation of carbon emissions disclosure in Indonesia is still voluntary.

To date, research on the effect of carbon information disclosure quality on enterprise value remains limited, with only a few studies addressing this topic. Notably, a study by Cao et al. (2022) concluded that high-quality carbon information disclosure can enhance enterprise value. This study supports the

legitimacy theory, which holds that an organization's behaviour must adhere to accepted public norms and values in order for it to endure over time.

Considering this, investors tend to have higher levels of trust in companies with a good public image. Another theory supporting the relationship between independent and dependent variables in this study is signalling theory. Companies that disclose internal data reduce the information asymmetry that exists between them and investors. Additionally, through stakeholder theory, companies are obliged not only to prioritize profits but also to contribute to society and the environment.

The phenomenon of companies' involvement in environmental damage, Indonesia's commitment to achieving a maximum net zero emission by 2060, and the limited research on the quality of carbon information disclosure in Indonesia serve as motivations for conducting this study. The research focuses on companies listed on the Indonesia Stock Exchange (IDX) during the period from 2020 to 2022. Indonesia is committed to participating in the Paris Agreement, evident through the enactment of Law No. 16 of 2016 regarding the Ratification of the Paris Agreement. Article 4, Paragraph 2 of the Paris Agreement mandates each participating country to develop, communicate, and uphold a series of Nationally Determined Contributions (NDCs) outlining their climate commitments (Komitmen Iklim, 2020).

NDCs are documents that outline a country's climate commitments and actions, communicated through the United Nations Framework Convention on

Climate Change (UNFCCC). Countries with Intended Nationally Determined Contributions (INDCs) valid until 2025 must submit their latest NDCs by 2020 and update them every five years. Similarly, countries with INDCs valid until 2030 must also update their contributions by 2020 and subsequently every five years.

Indonesia submitted its INDC in 2015, which became its first INDC in 2016, valid until 2030. Hence, Indonesia was required to communicate its updated NDC in 2020, reflecting enhanced commitments, which marking the start of the research period. The enactment of this regulation played a crucial role, evident in the implementation of several new national regulations addressing climate change, such as Presidential Regulations No. 61 and No. 62 of 2021, outlining the national action plan to reduce greenhouse gas emissions by 29% by 2030. Thus, it is anticipated that the research's findings will offer empirical insights into how the quality of carbon information disclosed affects the enterprise value of companies listed on the Indonesia Stock Exchange (IDX) between 2020 and 2022.

1.2. Research Problem

Across the globe, there is a growing frequency of natural disasters, notably in Indonesia, attributed in part to the escalation of extreme weather events induced by global warming. In 2015, Indonesia ranked as the world's fourth-largest emitter of greenhouse gases (Carbon Brief, 2019). Most emissions originated from deforestation, large-scale peatland fires, and the burning of fossil fuels for energy. In response to these events, the Indonesian government signed the Paris Agreement to the United Nations Framework Convention on Climate Change on April 22, 2016, aiming to reduce carbon emissions. Indonesia committed to lowering

greenhouse gas emissions, increasing forest cover, and reducing deforestation rates under this agreement.

However, Indonesia faces numerous challenges post the Paris Agreement. In 2023, Indonesia ranked ninth globally in terms of the largest emissions, totalling 192.7 mtCO₂, mainly due to its continued reliance on coal. Climate change induces extreme weather conditions that can raise temperatures in Indonesia, triggering air pollution. The prevalence of forest and land fires in Indonesia contributes to air pollution, with the carbon particles posing a health risk to the population.

Research on the relationship between the quality of carbon information disclosure and enterprise value is still limited, both in Indonesia and globally. Based on this background, the study aims to investigate whether the quality of carbon information disclosure has an influence on enterprise value.

1.3. Research Objectives

This study aims to empirically test and prove the influence of carbon information disclosure quality on the enterprise value of companies listed on the Indonesia Stock Exchange (IDX) from 2020 to 2022. It offers new insights into how companies disclose carbon information and how such disclosures can contribute to promoting low-carbon development in Indonesia. Furthermore, it contributes to enhancing the quality of carbon information disclosure by enterprises.

1.4. Research Contribution

a. Theoretical Contribution

This research aims to provide a valuable theoretical reference for examining the impact of carbon information disclosure on enterprise value, with a specific focus on Indonesia.

b. Practical Contribution

The research seeks to encourage enterprises to improve the transparency of their carbon information disclosure and aims to offer investors additional information to consider sustainability development objectives and carbon information disclosure in their investment decisions.

c. Regulatory Contribution

Based on the study's findings on sustainable finance practices among institutions, issuers, and public companies, the research recommends establishing a regulation mandating carbon reporting in Indonesia.

1.5. Structure of the Discussion

This research is organized into five chapters:

CHAPTER I INTRODUCTION

This chapter includes the research background, problem formulation, research objectives, research benefits, and the structure of the thesis.

CHAPTER II LITERATURE REVIEW

This chapter covers the theoretical foundation of the research, a review of previous studies used as references, and the development of hypotheses.

CHAPTER III RESEARCH METHODOLOGY

This chapter details the type of research, research objects, sample, operationalization and measurement of research variables, research model, data types and collection techniques, and data analysis methods used in the study.

CHAPTER IV RESULT AND DISCUSSION

This chapter provides an explanation of data analysis and discussion of the findings.

CHAPTER V CONCLUSION

This chapter presents the conclusions, research limitations, and suggestions for future research.