CHAPTER I
INTRODUCTION

1.1 Background

The changes in climate caused by human activities have had a big effect on sea level rise and extreme weather in many places around the world. The impacts have been widespread, affecting food and water security, human health, and economic and social aspects. In addition. there is significant loss and damage to the environment and people (Ozili, 2020). Climate change has become one of the most significant and damaging environmental threats. Liaising with the general public about climate change is the most important thing that needs to be done to stop it (Semenza, Ploubidis and George, 2011). A survey of 733 individuals aged 18 and older indicates that Generation Z expresses significant concern regarding climate change and its potential long-term effects. A significant majority of respondents 91.7% acknowledge that the global climate is changing. Furthermore, 81.4% attribute this change to human activity, while 85.7% report feeling the effects of these changes on a personal level. The primary effects of climate change include deforestation at 74.9%, water issues at 72.3%, and physical damage resulting from extreme climate events at 72.2% (Pandve, Chawla, Fernandez, Singru, Khismatrao and Pawar, 2011).

Figure 1.1 The severity of climate change in the world

Sources: National Geographic, 2023

Southeast Asia is in the southeastern part of the Asian continent that includes Mainland Southeast Asia (Indochina) and the Malacca Peninsula (Malay Archipelago) as well as the Archipelago, The region borders China to the north, the Pacific Ocean to the east, the Indian Ocean to the south, and the Indian Ocean to the west, Southeast Asia consists of 11 countries, namely Indonesia, Malaysia, Thailand, Singapore, Philippines, Vietnam, Brunei Darussalam, Cambodia, Laos, Timor Leste, and Myanmar (Karunia, 2024). Southeast Asian countries are members of the geopolitical and economic organization ASEAN (Association of Southest Asian Nations). One of the objectives of ASEAN is to increase economic growth. Most of the economies of countries in Southeast Asia are still classified as developing countries, only Singapore is classified as a developed country. According to a report from ASEAN Key Figures 2023, ASEAN has the fifth largest economy in the world and its constituent countries Indonesia, Malaysia, Singapore, Thailand, and Philippines are the ASEAN-5 region (Asean Key Figures, 2023). Most ASEAN countries have recently introduced regulations on mandatory corporate ESG (Environmental, Social, and Governance) disclosure (Tandelilin & Usman, 2023). Countries that issued ESG-related regulations for public companies are Malaysia (Liu, Demeritt and Tang, 2019) in 2015, Philippines (SEC Philippines,

2019) in 2019, Indonesia (Otoritas Jasa Keuangan, 2017), Singapore (Liu et al., 2019), and Thailand (Lawrence & Thomas, 2018) in 2017. This study uses ESG Score from ASEAN-5 as an independent variable obtained from the Refinitiv Eikon website.

There are several possible reasons why companies located other than in the ASEAN-5 countries do not issue ESG scores according to a report from the OECD (2019). Countries in the Southeast Asian area are primarily focused on economic growth rather than environmental sustainability, as they remain in the stage of economic development. Consequently, ESG is not currently prioritised and is not mandated to comply with internationally recognised ESG standards. Additionally, the emphasis of National Oil Companies (NOCs) on national energy policy may result in inadequate regulations regarding ESG reporting in certain countries. NOCs frequently are not obligated to adhere to globally recognised ESG standards, such as the Sustainability Accounting Standards Board (SASB) or the Task Force on Climate-Related Financial Disclosures (TCFD). Second, one of the main drivers of ESG reporting in ASEAN-5 is their stock exchange policies that require companies to report ESG scores. In countries outside ASEAN-5, stock exchanges are less developed, do not have ESG-related regulations, and do not have a strong framework for ESG reporting (Asean Capital Market Forum, 2023).

Although ESG development and regulation is still limited in some stock exchanges outside the ASEAN-5 countries, global sustainability issues, especially climate change, are a major concern. Due to global warming, changes in precipitation patterns, reduction and loss of cryosphere elements, and increased frequency and intensity of climatic extremes, climate change has hampered efforts to meet the Sustainable Development Goals (Ozili, 2020). In cities and settlements, climate impacts on key infrastructure cause damage and losses in water and food systems and affect economic activity, with greater impacts in areas directly affected by climate hazards (Fortes, Simoes, Armada and Amorim, 2022). As a result, the economic impacts of climate change are increasingly affecting people's livelihoods and causing economic and social impacts across national borders (Weber & Kholodova, 2017). These issues not only impact people and the environment but also pose a threat to the world economy. Implementation of sustainability practices is required to address these issues (World Bank, 2023). Therefore, discussion related to this environmental issue need to be discussed at this time.

In recent years, the focus on corporate sustainability has increased significantly, making a clear impact on researchers and industry alike. Businesses today face a number of environmentally and socially related challenges, caused by a growing global population and increased risks due to climate change. Given these issues, businesses today must prioritize sustainability strategies and initiatives, particularly those that heavily depend on these practices (Miralles & Hernandez, 2019). A number of companies are directing their attention to sustainability initiatives, encompassing efficient waste management strategies, reducing carbon emissions, and improving operational efficiency, To achieve corporate sustainability, these sustainability practices need to benefit all parties and contribute to increased firm value (Eccles & Serafeim, 2013).

Freeman proposed the stakeholder theory in 1984, which emphasizes That organizations should go beyond solely prioritizing value creation and profits for shareholders and owners, But also take into account the optimal interests of all stakeholders involved in the business. In addition, the allocation of resources to ESG activities can give companies a competitive advantage in the market as well as contribute to improved financial performance (Freeman, 1984). However, proposal of the shareholder theory challenges this notion, asserting that socially responsible activities should not prioritize corporate responsibility or objectives (Friedman, 1962).

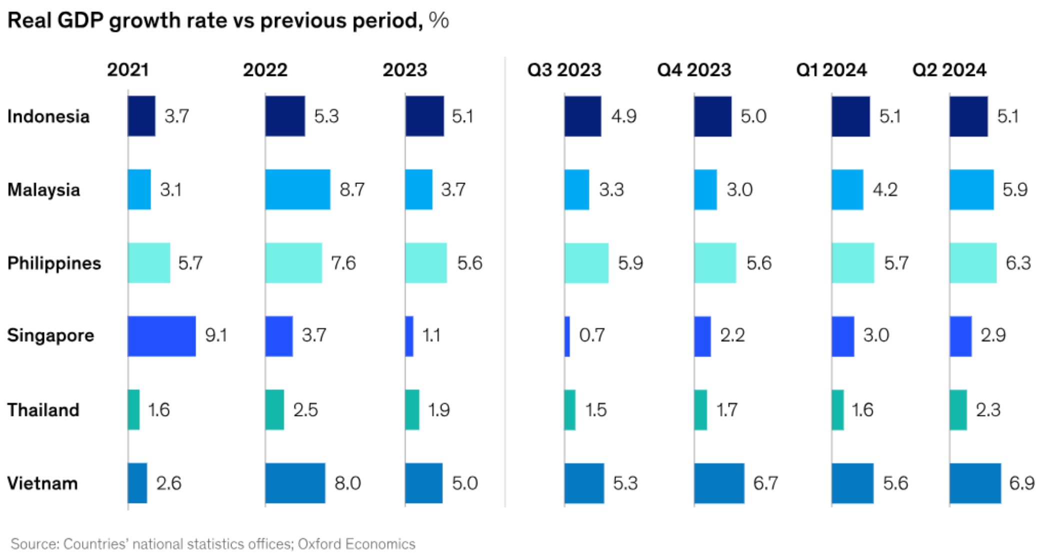
Sustainability reporting has become popular around the world and continues to grow. The most commonly used term is environmental, social, and governance (ESG). ESG disclosure is responsible for assessing the practices of the indicators it contains: environmental (E), social (S), and governance (G). The Council of Europe defines ESG policy as a consideration when choosing investments in the financial sector, which results in long-term investment in sustainable economic activities and projects (Mohammad & Wasiuzzaman, 2021). There are several methods available to measure ESG performance. The ESG score as used in the research of Naeem, Cankaya and Bildik (2022) and Jyoti & Khanna (2021) can be used for measurements.

The Global Reporting Initiative (GRI), a social, environmental, and sustainability-focused organization, established the GRI Index. Since 2002, the GRI Index has become a global standard in sustainability reporting. There are several standards issued by GRI, including universal standards, economic standards, environmental standards, and social standards. The commonly-used GRI standards have resulted in uniform sustainability reports. Consequently, Thomson Reuters initiated the launch of an index the ESG Index, to evaluate corporate sustainability reports. Despite its reference to GRI, the ESG index focuses on the investor's perspective through the creation of KPIs (Key Performance Indicators), whereas GRI establishes reporting standards based on the perspective of CSR (Corporate Social Responsibility). This study utilizes ESG scores as they offer a more comprehensive evaluation by considering all three ESG dimensions. For example, the environmental (E) pillar analyzes environmental data such as greenhouse gas emissions and environmental pollution, the Social (S) pillar evaluates data related to social aspects, and the Governance (G) pillar assesses the amount of data regarding governance, including the company's board of directors (Adeneye, Wahab and Kammoun, 2022). The ESG score obtained can provide insight for investors in the process of selecting companies, assessing investment potential, and projecting the company's future financial performance (Amir & Serafeim, 2018). Existing studies continue to analyze the relationship between corporate financial performance (FP) and ESG performance. The results obtained vary depending on the industry and area studied, with some studies showing positive, negative, or even insignificant results (Fatemi, Glaum, and Kaiser, 2018). In an effort to improve ESG performance, heavily regulated sectors experience increased costs, whereas less regulated sectors have greater freedom. This complex relationship is influenced by a range of variables, including governance, business characteristics, and industry conditions. According to Eccles & Serafeim (2013), aspects like carbon and operational efficiency interact with improvements in operational efficiency also influencing carbon.

Environmentally sensitive industries are industries that belong to sectors that have a significant impact on the environment due to their operational activities, such as energy, mining, metals, construction, chemical, and pulp and paper industries due to their production and business operations and environmental impact (Naeem, et al., 2022). In the ASEAN-5 region, these sectors play a key role in the economy, but are also major contributors to carbon emissions and environmental degradation (Naeem, et al., 2022). Non-financial companies in environmentally sensitive sectors, such as manufacturing, energy, mining, and agriculture, have a large environmental impact due to intensive resource use and waste production. Manufacturing accounts for about 23% of global carbon emissions, while agriculture and forestry account for 24% due to intensive production and land clearing (Global Environmental Management Initiative, 2023). The energy sector, including renewable energy, supports the clean energy transition, although it faces challenges in waste management and ecological impacts during facility construction (International Energy Agency, 2023).

ASEAN-5 countries including Indonesia, Malaysia, Thailand, Singapura, and Philippines are showing significant economic growth. However, they are also faced with serious environmental challenges, such as pollution, deforestation, and resource exploitation (Fu et al., 2021). This growth contributes to increased carbon emissions, particularly in the agriculture, forestry, and energy sectors. The World Bank notes that dependence on fossil fuels hinders the transition to clean energy, despite efforts to integrate renewable energy (Horky & Fidrmuc, 2024). Energy subsidy policies and low energy prices designed to maintain economic stability, also hinder the implementation of more sustainable environmental policies. The Asian Development Outlook report (Asian Development Bank, 2023) projects Southeast Asia's economic growth to reach 4.7% in 2023 and stabilize at approximately 4.8% in 2024. Domestic demand, the tourism sector, and financial stability drive this projection. If GDP growth is high, it can be said that a country has a good economy because more goods and services are produced and will provide good performance to companies in the country. This will certainly attract investors to invest in countries with high economic growth (Buallay, 2019).

Figure 1.2 GDP Growth in ASEAN



Sources: Asean Development Bank (2023)

Contemporary academic and business research has addressed the impact of ESG strategies and operations on corporate financial performance. However, there is a dearth of research on the impact of ESG activities and the financial performance of environmentally sensitive companies. Companies operating in environmentally sensitive sectors have a significant role in maintaining environmental sustainability. We can categorize companies operating in Energy, extractives, metallurgy, and infrastructure development, chemicals, pulp, and paper as environmentally sensitive industries due to their business operations and the environmental impact they have (Garcia et al., 2017). These companies invest heavily in environmental management to help reduce the negative impact that their business operations have on the environment (Naeem et al., 2022).

Investors tend to carefully analyse social and environmental aspects when formulating their investment plans. The analysis shows that ESG investments tend to provide more favourable returns in the market compared to companies that do not apply ESG principles (OECD, 2019). Issuing companies utilize ESG as a tool to attract the attention of stakeholders and investors. It serves as a foundation for them to convey sustainability strategies to investors and the capital market (Porter, 2011). The accuracy, completeness, and reliability of institutional communication with the market through reports play a very important role for businesses (Jin, 2018). ESG serves not only as a tool to assess risk but also to increase a company's attractiveness in the capital market, create long-term value, and support overall sustainable development. Corporate social responsibility (CSR) and sustainability play a role in reducing uncertainty, business risk, and the cost of capital (Bassen, Meyer and Schlange, 2011).

The analysis of the influence of ESG strategies and operations on corporate financial performance has become a major focus in academic research and contemporary business practice. However, there is insufficient research in the ESG literature on the influence of environmentally sensitive industries ESG activities and performance on their financial performance (Garcia et al., 2017). Companies operating in ecologically sensitive sectors play a crucial role in maintaining ecological sustainability (Emma & Jennifer, 2021). Companies operating Across the sectors of energy, mineral extraction, metallurgical processing, infrastructure development, chemical manufacturing, and pulp and paper production sectors can be identified as entities that are sensitive to environmental issues. This is due to their production and operational processes that have a significant impact on the environment (Naeem et al., 2022). The impact of voluntary disclosure of non-financial information on business risk and cost of capital. Companies that have a high cost of capital show a decrease in the cost of capital each year after disclosing their ESG initiatives (Dhaliwal, Li, Tsang and Yang, 2014). Studying ESG performance in emerging markets has significance for investors who want to diversify portfolio risk, as well as for low-income countries to analyze and understand the impact and potential that may arise from ESG. The impact of different ESG-related factors increases significantly when moving from developed countries to emerging market countries (Daugaard, 2020).

Research investigating the relationship between ESG and firm performance in emerging market environments across various industries yields mixed results (Naeem et al., 2022; Garcia et al., 2017; Laine, Jarvinen, Hyvonen and Kantola, 2017; Makhdalena & Zulvina, 2023). According to most research results, there is no significant correlation between corporate financial performance and ESG performance. However, when examined in a more specific scope, such as in Laine et al. (2017) article, which investigates the impact of ESG on the financial performance of BRICS countries, it shows significant and positive results.

This research refers to the research of Naeem et al. (2022). The difference between this research and previous research can be seen from the sample, object, time, and research variables. The sample in this study uses environmentally sensitive industries in ASEAN-5 countries in 7 sectors of industrials, basic materials, consumer cyclicals, consumer non-cyclicals, utilities, real estate, and energy in a 5-year window 2019-2023 in accordance with research (Wang & Sarkis, 2017). There is an addition of 1 sector, namely the real estate sector because according to the Intergovernmental report on Panel Climate Change (IPCC) 2023 real estate accounts for 39% of global carbon emissions and makes it one of the most critical sectors in climate change mitigation efforts.

While previous research used samples in six environmentally sensitive industries (utilities, chemicals, construction, pulp sectors, energy, and machinery) within a span of 10 years. In this study, there is the addition of a dependent variable, namely Market-to-book-ratio (MBR) for market-based measurement (market valuation), while in previous studies the market valuation measurement only used Tobin's Q. There are several reasons why MBR is used as the dependent variable in this study. First, MBR measures the ratio between the market value and the book value of the company. A high MBR indicates that the market has greater growth expectations for the company than its book value, the company's book value. Good ESG can influence the market's perception of (Cheng, Ioannou and Serafeim, 2010). Second, based on research conducted by Baker & Wurgler (2002) provides recommendations on how to measure leverage optimally in the long term, recommendations on how to measure leverage optimally in relation The market-to-book ratio (MTB), also known as the price-to-book ratio (P/B ratio). This certainly makes it easier to analyse the control variables. The control variable in this study is leverage. Therefore, Market-to-book-ratio (MBR) is used as the dependent variable to explain the variation in ESG performance of the companies in accordance with the research conducted by Buallay (2019) companies in accordance with research conducted by Aouadi & Marsat (2018). Besides In addition, this study uses ESG combined score as an independent variable, in accordance with the research conducted by (Jyoti & Khanna, 2021).

Aligned with the findings of research conducted by Khanna (2021) & Ting et al. (2019) with the aim of seeing the effect of ESG combined score. ESG score and ESG controversies score on the performance of companies from environmentally sensitive industries, companies from environmentally sensitive industries in the ASEAN-5 Region. While previous research Naeem et al. (2022) used 2 variables, namely ESG score and ESG controversies score. The reason why the author uses the ESG combined score is because it is the overall score of the company based on information reported in the environmental, social, and corporate governance pillars (ESG score) with the ESG controversies score.

In this study, environmental sensitive industries are the object of research because they have a significant impact on ESG performance. This industry was chosen because of its obvious impact on ESG aspects. Research in this sector is relevant to understand how ESG commitments can mitigate operational and reputational risks while creating added value for companies. In addition, the industry is also often the subject of sustainability-focused government policies, so analyzing ESG performance in this sector is strategic (Maiti, 2021a; Eccles & Serafeim, 2013). Environmental sensitive industries such as manufacturing, energy, transportation, and agribusiness that often have large carbon footprints resource use and social impacts (Cheng et al., 2010). ESG performance in these sectors directly affects environmental sustainability and social welfare. In addition, non-financial companies often face environmental challenges such as waste management, energy efficiency, and carbon emission reduction. Specific ESG challenges, such as sustainability and governance are often faced by these businesses, which affect financial performance and long-term viability (Maiti, 2021a). Therefore, this study analyses the relationship between ESG performance of environmentally sensitive industry in ASEAN-5 countries and firm performance. Research in the field of ESG is still limited, especially in the Southeast Asia Region. So, this study can make an important contribution to fill the gap in the literature, especially in the ASEAN-5 region, which is facing challenges of sustainability and economic growth. ASEAN plays a crucial role in fostering economic development by facilitating regional integration, encouraging trade, and attracting foreign direct investment (FDI). For emerging markets like Indonesia and the Philippines, ASEAN provides opportunities to expand market access, improve infrastructure, and strengthen resilience against global economic shocks (Makhdalena et al., 2023). Meanwhile, for developed markets such as Singapore, ASEAN serves as a platform to lead innovation and drive sustainable economic practices across the region. By analyzing The influence of ESG performance on corporate success, this study aligns with ASEAN's broader goals of achieving inclusive growth and addressing sustainability challenges in both emerging and developed economies within the region.

This research is important and useful to tackle these challenges. First, approaches and initiatives pertaining to corporate sustainability are very important for modern enterprises because they determine the success of the company (Miralles-Quiros et al., 2018) . Second, some business organizations focus on sustainability initiatives, including waste management, carbon footprint reduction, and enhancing operational efficiency capabilities. However, to achieve sustainability the company must benefit all stakeholders and increase company value (Eccles & Serafeim, 2013). Third, previous research found evidence that shows ESG investments are economically beneficial for companies (Huang, 2021). The impact of ESG strategies and operations on corporate financial performance has been a topic of discussion in modern academic and business research. However, studies in ESG literature regarding the impact of ESG activities and performance of environmentally sensitive industries regarding their financial performance, the evidence remains inadequate (Naeem, et al., 2022). Therefore, this study aims to examine the financial implications of ESG performance of environmental sensitive industries in 7 sectors (industrials, basic materials, consumer cyclicals, consumer non-cyclicals, utilities, real estate, and energy) in a 5-year window 2019-2023 in ASEAN-5 Region.

1.2 Problem Formulation

Based on the description above the problem to be studied are:

1. Is there a significant relationship between the ESG combined score and firm performance from environmentally sensitive industries in ASEAN-5 Region?
2. Is there a significant relationship between environmental scores and firm performance from environmentally sensitive industries in ASEAN-5 Region?
3. Is there a significant relationship between social scores and firm performance from environmentally sensitive industries in ASEAN-5 Region?
4. Is there a significant relationship between governance score and firm performance from environmentally sensitive industries in ASEAN-5 Region?

1.3 Research Objective

The purpose of this research is to:

1. To test and analyse empirically the effect of ESG combined score from environmentally sensitive industries in ASEAN-5 Region on firm performance.
2. To test and analyse empirically the effect from environmentally sensitive industries in ASEAN-5 Region on firm performance.
3. To test and analyse empirically the effect of social score from environmentally sensitive industries in ASEAN-5 Region on firm performance.
4. To test and analyse empirically the effect from environmentally sensitive industries in ASEAN-5 Region on firm performance.

1.4 Research Benefit

This study is anticipated to provide significant contributions to various parties, including companies, investors, researchers, and academics. For environmentally sensitive non-financial companies in the ASEAN-5 Region, this research is expected to provide a deeper understanding of the impact of ESG on firm performance. So that, companies can determine the importance of ESG implementation in their operations. This study is anticipated to provide insights and useful literature for investors in the investment decision-making process, considering the ESG performance of a company. This study is expected to provide a substantial contribution to researchers' understanding of ESG and its implications for firm performance. This research is expected to make a significant contribution to academia by adding insight and literature regarding the influence of ESG performance in environmental sensitive industries on 7 sectors ((industrials, basic materials, consumer cyclicals, consumer non-cyclicals, utilities, real estate, and energy) in the ASEAN-5 Region.

1.5 Writing Systematic

This research is organized systematically into five chapters. The first chapter provides an introduction, outlining the background of the problem, the formulation of the problem, the research objectives, and the systematic benefits of the research. Chapter two presents an in-depth analysis of the literature review, which includes the theoretical basis, previous research, hypothesis development, and conceptual framework. Chapter three describes research methods, including research design, research population and samples, data sources and data collection methods, research variables, and data analysis methods. In Chapter 4, the results and discussion are presented, encompassing the analysis and discussion of the results of the hypothesis testing. Chapter five presents a summary that includes conclusions, recommendations for future research, and identification of limitations that exist in this study.