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# The Unfolding of E.S.G. Investment as a Realization of Sustainable Development Goals

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**ABSTRACT**

Current E.S.G. investing This is very relevant and essential. E.S.G. is form investments focusing on the environment, social, and governance company. Many companies now care more about the period length and requirements of everyone involved in business. Study This aims To understand better How E.S.G. investments contribute to sustainable development. Study This covers the development of E.S.G. investments worldwide, especially in Indonesia. Study This uses the literature review method, which means collecting and analyzing information from various sources relevant to writing with topic research. Research results show that E.S.G. investments consider environmental, social, and governance Factors to evaluate risks and opportunities of investment. E.S.G. principles also involved attention towards governance company, social issues, and environmental impact in business strategy. Management chain supply also has a vital role in controlling the effects on the environment company. Apart from that, E.S.G. also includes connecting the Company with party external and internal management processes. Companies that implement E.S.G. practices gain benefits like an increasing quality environment, more reputation, power pull for investors, satisfied employees, and performance finances. E.S.G. investing also supports the Sustainable Development Goals set by the United Nations. This article helps Us understand the importance of deep E.S.G. investing in reaching sustainability and practicing responsible business answers.



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## INTRODUCTION

The revolution industry that occurred in England in the 18th century has brought significant change to the development industry in the world (Ministry of the Environment 2012). Revolution This succeeded in changing the original industry walk slow become fast. Growing industry moment This results from the revolution that. Behind success in speeding up the rate of the world economy, bad ones cannot be avoided, i.e., the declining quality environment. In line with the fast-growing industry, source Power Keeps going, exploitation and pollution increase. As a result of the environment, the more damage and disaster consequences there are, man, the more Lots (Baiquni, 2009). This can happen because of two main things, i.e., the activity industry causes switch function forests and uses energy fossil (Stolyarova, 2013).

The development industry has resulted in the transformation Of the previous forest _ role as producers of oxygen and absorbent carbon dioxide (which is known as the " lungs of the world") into a producing region of carbon dioxide (Ministry of the Environment 2012). The industry also needs several significant energy fossils To support activity business. This includes oil earth, natural gas, coal, and sources that can produce polluted air (Stolyarova, 2013). Every use of fossil energy contributes to improving carbon in the atmosphere. Using energy fossils and changing the function of land forests, together with minimal concern for the industry to issue the environment, has caused degradation of the quality of the environment. This is reflected in the enhancement resulting from global temperature change climate and warming of the earth (Suhardi & Purwanto, 2015).

*The Synthesis Report* (S.Y.R.) of *The Sixth Assessment Report* (AR6) by the IPCC summarizes the understanding of change climate, its impacts, its widespread risks, and effort mitigation and adaptation. Report This confirms the reciprocal relationship between climate, ecosystem, diversity of life, and humans. According to the report, the temperature global surface area increased as much as 1.09 [0.95 to 1.20]°C in the 2011–2020 period if compared to the period 1850–1900, with more improvement occurring on land (1.59 [1.34 to 1.83]°C) compared with in the ocean (0.88 [0.68 to 1.01]°C). Temperature global surface over two decades: The First 21st century (2001–2020) rose by 0.99 [0.84 to 1.10 ]° C compared to 1850–1900. Temperature global surface area also increased faster since 1970 than in 50 years other than during at least 2000 years. (IPCC, 2023).

*The Emissions Database for Global Atmospheric Research* (EDGAR) plays a role in the effort to action global climate by giving view independent and quantitative about house gas emissions glass (GHG) globally. EDGAR is a global database that estimates GHG emissions for every country and sector ( including CO2, CH4, N2O, and type F gases ) using Advanced and transparent methodology. During the COVID-19 pandemic, global emissions increased by 3.7 % in 2020 compared to 2019, which stopped trend improvements that have been taking place for more than ten years. However, after the COVID-19 pandemic, global GHG emissions return increased, reaching the level of 53.8

Gt CO2eq in 2022. This represents an enhancement of 2.3% compared to 2019 and 1.4% compared to 2021. In 2020, sector transportation experienced an enhancement in GHG emissions of 2.3% compared to 2021, the decline most significant since before the COVID-19 pandemic (-14.1 %). However, in 2022, the sector experienced significant improvement by 4.7%. On the other hand, sector building only experienced a decline in GHG emissions of 0.4 % in 2022 compared with 2021, after experiencing an enhancement of 4.6% the year before. GHG emissions per capita globally in 2022 will experience enhancement by 0.4%, reaching 6.76 tonnes of CO2eq per capita, though it is still 0.8% lower compared to 2019 (EDGAR, 2023).

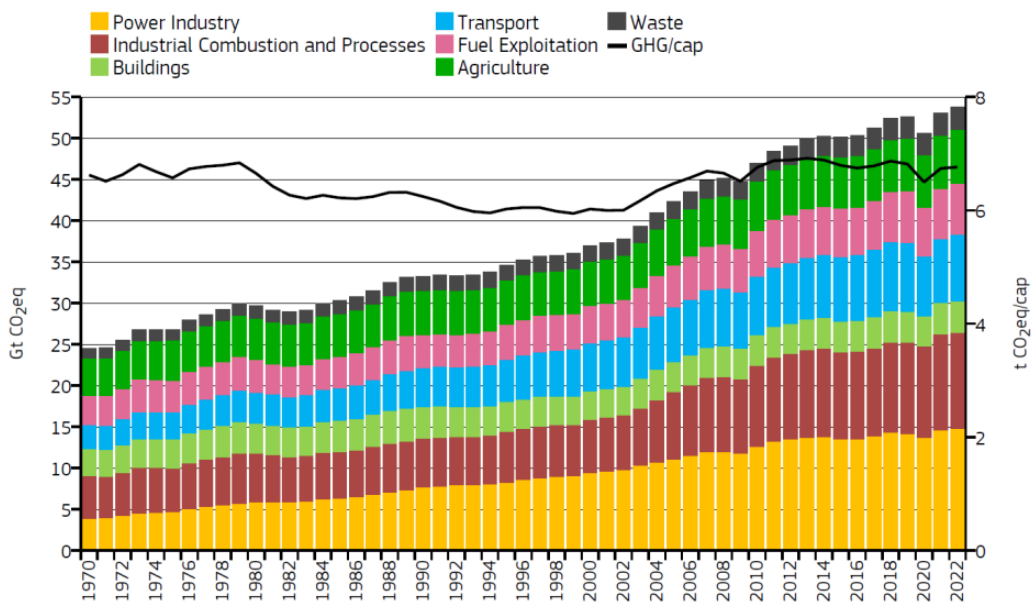


Figure 1.1 Global GHG emissions by sector and per capita 1970-2022 ( Source : (EDGAR, 2023) )

Issues of sustainability, both at level local as well as globally, have a significant impact on operations organization. The consequence of issues continuity varies depending on the sector industry, location geography, and development time. Understanding and predicting impact often becomes a complicated task. Financial markets, which are system capital allocation to various types of organizations, projects, and activities through various instrument finances, are influenced by continuity issues (Jouffray et al., 2019).

The Company revealed activity sustainable through report continuity as form intended information to investors and stakeholders (Cormier & Magnan, 2007; Kolk, 2008). The sustainability performance company shows effort company and achievements about continuity (Mahoney et al., 2013; Searcy, 2012). The Company needs to answer fiduciary in managing funds provided by investors with social, environmental, and governance notice aspects. Two factors are the main driving force change in reporting this. First, the Company is responsible for using source power and impact. Second, increase awareness to impact the continuity of the organization Because related with context social and environmental (Laine et al., 2022).

Investment current E.S.G.- based This become form the most popular and continuing " sustainable " investment growing, along with increasing companies emphasize attention to sustainability period long as well as need all over holder interests. There is identification of over 70 companies with different provider E.S.G. ranking (F. Li & Polychronopoulos, 2020). Companies receive high ratings for behavior that supports responsibility for E.S.G. aspects. In contrast, low ratings are given for behavior that does not support responsibility for E.S.G. Usually, and a company is categorized in a certain ranking class. The E.S.G. disclosure score indicates a company's capability and long-term value in building sustainability (Atif et al., 2022).

Investors check various related behaviors and policies with environmental, social, and governance practices when evaluating a Company using E.S.G. criteria. This is done with the Company's objective push: to behave in a responsible answer and avoid risky practices or No ethics. E.S.G. governance standards guarantee that the Company is responsible for answering to holder stock, making sure of integrity and diversity in election leaders, and using accurate and transparent accounting (Team Investopedia, Thomas Brock, 2023)

During the decade, more than investment interest is needed to increase social (Auer & Schuhmacher, 2016) significantly. Investors will study the reports and finances of the Company they are considering and evaluate the performance of the business company with the objective of reaching a decision investment that delivers optimal satisfaction (Rahmadhika, 2023).

Apart from financial information, non-financial data that includes aspects of environmental, social, and governance (E.S.G.) is increasingly growing and absorbing investor interest for specific reasons. Using E.S.G. factors complicates investment (Berg & Lange, 2020). This has excellent significance Because E.S.G. scores are often connected with risk investment. These E.S.G. risks can appear in various forms, including " risk be careful " like risk credit, market risk, and risk operations l (E.B.A. 2021). This research aims to explore how E.S.G. investment plays a role in supporting sustainable development, with the main focus on the development of E.S.G. from its inception to the present.

## METHODOLOGY

The method used in this article is a literature review. Literature review research is a research approach that focuses on the analysis, synthesis, and evaluation of literature or written sources relevant to the research topic (Nightingale, 2009; Pare, G, and Kitsiou, 2016; Snyder, 2019), where data collection in research was carried out this is done by reviewing and/or exploring several journals, books and document (either in print or electonic form). This method does not collect primary data such as surveys or interviews but focuses on analyzing existing scientific literature information. The following steps are taken in the literature review research method: [1] Selecting a research topic according to the research objectives; [2] Collect literature relevant to the topic. Literary sources can include books, journal articles, theses, dissertations, and other relevant documents. [3] Select the literature most related to the research subject. This includes reading and assessing the quality of the literature and determining which literature to include in the review; [4] organizing literature based on specific topics, concepts, or themes so as to help compile a structured review; [5] conducting analysis and critical analysis; and [6] organizes the results by showing the relationships and patterns that emerge from each piece of literature. The literature review research method is beneficial for understanding knowledge development and academic discourse about a particular topic (Nightingale, 2009; Pare, G, and Kitsiou, 2016; Snyder, 2019; Stratton, 2019). This can also help in designing further research or identifying areas still under-explored.

## RESULTS AND DISCUSSION

### E, S, and G: Not ESG

ESG is a framework work consisting of three aspects, i.e., the environment, social aspect, and governance. The third aspect is used as a matrix in consideration of decision investment and also as a reference for the Company to report the impact of activity on its operations related to environmental, social, and governance (E.S.G. Indonesia Stock Exchange 2020). E.S.G. for holder interests is also helpful in seeing all non-financial risks and opportunities inherent in the activity of an operational company.

Environmental, Social, and Governance (E.S.G.) framework work is used To identify and manage risks and opportunities that do not have nature-related finances with operation companies (Crmsindonesia.org, 2022; Hadijah, 2022). The "E" in E.S.G. refers to aspects of the impact and sustainability environment of the operation company, including the utilization source Power nature and the effects its operations on the environment (Avetta Marketing, 2022; Global, 2019). This includes efficient use of source power, management of waste, and carbon emissions (Avetta Marketing, 2022). Investment in E.S.G. must consider the risk environment Because the environment can impact excellent competitive something business (Global, 2019).

In implementing E.S.G. principles, business strategy should focus on three main elements: governance, social, and environmental (Team Investopedia, Thomas Brock, 2023). For managing aspect "E" (Environmental) in E.S.G., the management chain Proper supply is essential because can possible Company For assess and control considered actions wasteful or damage the environment (Avetta Marketing, 2022) . Influence E.S.G. factors against management chain supply (S.C.M.) is critical and ongoing growing. Companies _ in a progressive way, integrate E.S.G. standards into purchasing and procurement strategies. They admit that the necessity to ensure chain sustainable, responsible supply answers in a way social and ethical. This involves handling various problems, including essential humans, standard employment, environmental impact, and corruption (Ferriani & Natoli, 2021).

Criteria E.S.G. “S” (Social) more notice connection company in a way external. Criteria social E.S.G. discusses the connection of the Company with party external like society, community, suppliers, buyers, media, and entities who have relationships. Factors this, fine in a way direct nor No straight away, you have to consider through criteria E.S.G. social. (ProtectForest 2022) . This thing caused the fact that several elements of standard social will influence performance finance companies. (Luqyana 2022) . Human rights, human condition employment, diversity and inclusivity, social engagement, and health and safety Work are three criteria for E.S.G. social (Mandiri, 2022). For example, the Company must try hard to keep going and learn about the issues and rights of workers. (Luqyana 2022) . This is important because awareness will help workers become more general. In addition, criteria social E.S.G. discusses how the Company relates to society and environmental surroundings (Crmsindonesia.org, 2022).

One E.S.G. criteria, “G” (Governance) focuses on how a company has a good and sustainable management process internally (Luqyana, 2022). Governance criteria discuss activity company, which depends on activity management and owners (ProtectForest, 2022). Several factors included in E.S.G. governance criteria are the capacity and legitimacy of A company, internal relations, and internal control. (Luqyana 2022) In addition, E.S.G. governance standards are discussed. How the Company intertwines a positive relationship with holder stock ensures decision-making transparency. (Hadijah, 2022) The Company must ensure a sound and sustainable internal management process according to governance criteria. Temporary criteria social focuses on external relationships, and governance criteria focus on the management or governance of _ the Company. ( Sunday , Aboladaka, and Neonufa 2023).

Companies that implement E.S.G. can achieve two main benefits. First, implementing E.S.G. can increase the quality of the environment and build a superior competitive company from time to time. Second, implementing E.S.G. can benefit the Company's reputation, power pulls for investors, satisfaction employees, and push innovative technology from the Company that took part in the initiative (Zhang et al., 2020). Apart from that, implementing E.S.G. can also improve a company's financial performance by reducing input costs and increasing labor productivity through adjusting resource allocation (Mervelskemper and Streit 2017).

## Development E.S.G. from the Beginning to Today

The E.S.G. (Environmental, Social, and Governance) concept has experienced quite an evolution from the beginning until now. Following are E.S.G. developments from time to time:

Table 1. E.S.G. Developments

| Development | Information |
| --- | --- |
| Pre-History of E.S.G. (Biblical Times) | E.S.G. investing dates back hundreds of years when several different religions decided not to support certain products that went against the principles of their beliefs. The Torah and Al-Quran provide guidelines for believers on how to invest. Jewish teachings specifically emphasize the importance of "ethical investments," while the Koran teaches to avoid investing in specific sectors, such as alcohol and gambling. |
| The Rise of Social Investment (1960s) | S.R.I. (Socially Responsible Investing) changed the sustainable investment model based on religious values by expanding the scope of ethical issues such as the civil rights campaign and opposition to the Vietnam War. |
| Growing Social Investment (1970s) | When Earth Day was introduced in 1970, activists began to care more about environmental issues.<br>They began to consider a mix of socially responsible investments, including religious values, environmental issues, racial equality, and social justice. |
| The idea of C.S.R. (1980s) | In the 1980s, the concept of corporate social responsibility (C.S.R.) began to emerge and was embraced by some companies. Several companies are starting to design C.S.R. programs involving environmental issues, employee welfare, and social contributions. |
| Global Reporting Initiative (1990s) | In 1997, the Global Reporting Initiative (G.R.I.) was formed as a non-profit entity to develop sustainability and E.S.G. reporting guidelines. This initiative helped set E.S.G. reporting standards that later became more widely used. |
| The emergence of E.S.G. Investment (Early 2000s) | In the early 2000s, the concept of ESG-based investment began to develop along with increasing awareness of the importance of E.S.G. factors in assessing investment risks and opportunities. Some investment funds are starting to integrate E.S.G. in their investment strategies. In the U.K., pension fund regulations legally require pension funds to consider non-financial issues such as social, environmental, and ethical aspects in their investment policies. |
| Global Financial Crisis as a Trigger of Interest in E.S.G. Investment (2008) | The global financial crisis of 2008 led to greater interest in ESG-based investing, as many investors sought strategies to reduce investment risk and achieve more sustainable opportunities. |

| Development | Information |
|---|---|
| Sustainable Development Goals/S.D.G.s (2015) | The launch of the U.N. Sustainable Development Goals (S.D.G.s) in 2015 further strengthened the popularity of E.S.G. investing. S.D.G.s cover environmental, social, and economic issues relevant to E.S.G. |
| Technology Integration (Starting from the 2010s to the present) | Technological advances, including big data analytics and artificial intelligence (A.I.), have contributed to evaluating and monitoring environmental, social, and governance (E.S.G.) focused companies and investments. In 2023, the use of A.I. technology in the E.S.G. context is expected to continue to increase. This is influenced by increasing company awareness of the benefits of A.I. technology in the E.S.G. realm and the continued development of advances in artificial intelligence technology. |

Source: (Barroso & Araújo, 2020; Burnaev et al., 2023; Harvey, 2021; Sparkes, 2002; Thi Thu Thao, 2023)

Overall, the development of E.S.G. investing has experienced a significant increase from its inception to the present. In recent decades, awareness of the importance of environmental, social, and governance factors in the investment context has increased. Companies and investors increasingly understand that sustainability and social responsibility are essential to achieving long-term goals. E.S.G. implementation has become an inseparable part of business and investment strategy, and companies that implement E.S.G. practices experience benefits in the form of increased reputation, attractiveness to investors, employee satisfaction, and financial performance.

**Frameworks Of E.S.G.**

Framework work that includes environment life (E), social (S), and governance factors (G) (E.B.A. 2021a). E.S.G. comes from a responsible investment answer. *The Principles for Responsible Investment* (P.R.I.) defines responsible investment answer as " a strategy and practice For enter factor environmental , social and governance (E.S.G.) in in taking decision " (UNPRI, 2020). Therefore, E.S.G. usually becomes standards and strategies used by investors to evaluate the Company's behavior and future financial performance. _ As draft investment For evaluating sustainable companies' development, E.S.G. must be considered in the investment and withdrawal decision (T.T. Li et al., 2021).

In addition, factors environmental, social, and governance (E.S.G.) help measure sustainability and impact social activity business (E.B.A., 2021). *The European Banking Authority* (E.B.A.) states E.S.G. factors are " environmental , social or governance things are possible impact positive or negative to performance finance or solvency something entity, country or individual " (E.B.A., 2021). Therefore, as mark sustainability and development coordinated, considering economic, environmental, social, and governance benefits, E.S.G. is a philosophy pursuing investment mark period long growth and is comprehensive, concrete, and grounded governance methods (T.T. Li et al., 2021).

Table 2. E.S.G. Measurement

| Dimensions | Factor | Definition |
|---|---|---|
| Environmental | • Greenhouse gas emissions<br>• Energy consumption and efficiency<br>• Air pollution<br>• Water use and recycling<br>• Waste production and management<br>• Impact and dependence on biodiversity<br>• Impact and dependence on ecosystems<br>• Innovation in environmentally friendly products and services | Environmental problems can also have a good or bad impact on the financial performance or solvency of an entity, country, or individual. |
| Social | • Freedom of association in the workplace<br>• Child labor<br>• Forced and compulsory labor<br>• Health and safety at work<br>• Customer health and safety<br>• Discrimination, diversity, and equality<br>• Opportunity<br>• Poverty and its impact on communities<br>• Fitting chain management<br>• Training and Education<br>• Privacy customer<br>• Impact Community | Social problems can impact Good or harmful performance finance or solvency of something entity, country, or individual. |
| Governance | • Code of ethics and principles business<br>• Accountability<br>• Transparency and openness<br>• Wages executive<br>• Board diversity and structure<br>• Bribery and corruption<br>• Involvement holder interest<br>• Rights shareholders | Governance can impact, Good or bad, on financial performance or ability to pay a debt entity, country, or individual. |

Source : (TT Li et al. 2021)

**Relationship Between E.S.G. and S.D.G.s**

Increasing public interest in environmental, social, and governance issues requires all organizations to address sustainability (Hatayama, 2022). In 2015, the U.N. introduced the Sustainable Development Goals (S.D.G.s), consisting of 17 society-level goals, 169 targets and 231 indicators. The S.D.G.s aim to achieve global sustainability by

2030 (Nations, 2015). S.D.G.s are described as the most comprehensive framework ever formulated to face the significant challenges faced by global society (Kolk, Kourula, 2017).

Environmental, Social, and Governance (E.S.G.) framework has components related to achieving specific 17 Sustainable Development Goals (S.D.G.s). The following are the S.D.G.s through an E.S.G. lens.


Figure 2 S.D.G.s through an E.S.G. lens (Source: (Sætra, 2021))

The business world is considered the central potential to advance global sustainability based on 17 S.D.G.s. Therefore, the business world must be able to embed the S.D.G. framework in their operational activities to advance global sustainability (DelgadoCeballos et al., 2023). Adopting a company's approach to sustainable development can expand opportunities for work and careers. So, E.S.G. and S.D.G.s are mutually exclusive and related, where E.S.G. is an indicator of application development sustainability, and the S.D.G.s deliver a guide for a sustainable future (esgthereport, 2021).

## E.S.G. Implementation of the Triple Bottom Line

Framework Triple Bottom Line work is used in the study To describe aspects of social and environmental context continuity development in the sector economy (Elkington, 2018). This refers to values or impact involving social, environmental, and economic investment aspects. The Triple Bottom Line concept emerged as a tool For supporting objective continuity organization and advises that activity business should be in line with mutual dimensions related, namely profit (economic), people (social), and planet (environment), in order to support objective more sustainability wide (Timothy F. Slaper, 2011). Demands that the Company be more active in effort social and responsible answer to the environment (Ruka & Rashidirad, 2019).

Sustainability has become a significant priority for government, industry, and all the parties making the effort To advance the nation and economy. The concept of "E.S.G.," which refers to " Environmental, Social, and Governance," is used To evaluate the impact ethically produced by the Company, based on the triple bottom line concept, and becomes an integral component of investment sustainability. E.S.G. ratings and indicators constitute combining tool investment with consideration aspect sustainability. Institutional investors and the companies they support have changed their orientation from a focusing on achievement profit period short For holder stock, headed effort To minimize the impact negative from the action they to the public in a way wide (Ms. Ifra Fathima 2023).

## CONCLUSION

E.S.G. (Environmental, Social, and Governance) investment is a form of sustainable investment that focuses on environmental, social, and governance aspects in company operations. The report considers resource efficiency, waste management, and carbon emissions factors to assess investment risks and opportunities. Implementing E.S.G. principles involves focusing on governance, social, and environmental elements in business strategy. Supply chain management is essential in controlling a company's environmental impact. E.S.G. criteria also address a company's relationship with external stakeholders and internal management processes. Companies that adopt E.S.G. practices can benefit in terms of environmental quality, reputation, investor attractiveness, employee satisfaction, and financial performance. E.S.G. is closely related to the Sustainable Development Goals (S.D.G.s) set by the United Nations because it is in line with several S.D.G.s, such as promoting decent work, reducing inequality, tackling climate change, and protecting ecosystems. E.S.G. investing is gaining increasing attention as sustainability and responsible business practices are increasingly recognized as necessary.

This research presents innovation with a comprehensive literature review approach, analyzing E.S.G. developments and their impact on the S.D.G.s. By integrating findings from various sources, this research reveals the benefits of E.S.G. investing in improving reputation, investor attraction, employee satisfaction, and Company financial performance. Thus, this research enriches understanding of the critical role of E.S.G. investing in achieving sustainability and responsible business practices.

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