





The Relationship of Firm Value and Profitability With ESG Disclosures In Property and Real Estate Companies in Indonesia Stock Exchange

Renhard Panjaitan* , Yunieta Anny Nainggolan 
Bandung Institute of Technology, Indonesia

Received : June 13, 2025

Revised : July 8, 2025

Accepted : August 15, 2025

Online : December 24, 2025

Abstract

This research aims to investigate the relationship between firm value and profitability on Environmental, Social, and Governance (ESG) disclosure on property and real estate companies listed on the Indonesian Stock Exchange. The sample used was 32 samples with 32 observations using the purposive sampling technique. The data used is secondary data, with the data collection method using content analysis. The analysis technique used is linear regression analysis. The dependent variable is ESG Score; the independent variables are two performance indicators (Tobin's Q and Return on Assets); the control variables are firm size and financial leverage. standards. A one-year lag consideration is used on ESG disclosure. The results of the research indicate (1) firm value and profitability, as measured by Tobin's Q and Return on Assets, respectively, simultaneously have a significant and positive relationship on the level of ESG disclosure; (2) firm value, as measured by Tobin's Q, does not have a significant relationship on the level of ESG disclosure. (3) profitability, as measured by Return on Assets, has a significant and positive relationship with the level of ESG disclosure. Research findings are beneficial for investors, fund managers, policymakers, and property and real estate companies. The author further provides suggestions to executives on ESG investment and practices to gain the benefits of such investments.

Keywords: *Firm Value, Profitability, ESG Disclosure, SASB Standards, Property and Real Estate*

INTRODUCTION

As sustainability has been a growing concern for companies and investors, ESG factors have become a major focus for both companies and investors, therefore investors are considering ESG aspects into their investment decisions (IFRS Foundation, 2025) as they believe that ESG factors can impact a company's long-term performance and risk profile, while the value of a company is perceived both on how it can maximize profits and on its ability to take into account the environment, social, and governance aspects in their business activities. In response, companies are under pressure to convey high-quality and comparable information across the globe related to ESG (IFRS Foundation, 2025) with more transparent and accessible to investors. Many stakeholders are increasingly concentrating on revealing how companies are governed, and their performance achievements with a focus on ESG, with investors are increasingly searching for companies that deliver strong financial returns and commit to addressing sustainability issues and conducting responsible practices. The study also showed that companies that prioritize sustainability practices may also experience financial benefits through cost savings, risk mitigation, and enhanced stakeholder engagement. A comparative study of sustainable and conventional investment in Indonesia found that sustainable investment instruments can have superior financial performance, potentially attracting greater investor interest and contributing to the growth of sustainable finance in the country (Handayani & Rokhim, 2023).

Responsible investing, also known as ethical investing, sustainable investing, or socially responsible investing, has been evolving as a priority in the financial world and emerges as a way

Copyright Holder:

© Renhard & Yunieta. (2025)

Corresponding author's email: renhard_panjaitan@sbm-itb.ac.id

This Article is Licensed Under:



to incorporate ESG factors into investment strategies and portfolio management for investors. This approach integrates ESG considerations and traditional financial analysis to guide investment decisions (Hyske et al., 2022; Chițimiea et al., 2021). ESG disclosures have become increasingly important as stakeholders require greater transparency and accountability regarding a company's sustainability practices. As investors, regulators, and other interested parties are increasingly demanding comparable disclosures of ESG risks and opportunities, ESG disclosure can serve as a tool for companies to provide information to stakeholders regarding their ESG responsibilities and commitment. Therefore, sustainability reporting has become a crucial element of corporate governance, encouraging greater transparency in business practices. Recognizing the increasing transparency requirement, numerous countries have implemented regulations and guidelines to require companies to report their ESG performance, which led to widespread adoption of ESG reporting standards. In Indonesia, the Financial Services Authority introduced POJK 51/2017, which mandates disclosures of sustainability aspects by publicly listed companies. After the regulation has become effective, the number of companies submitting a Sustainability Report tends to increase.

Sustainability practices have also gained growing attention for the property and real estate sector because the sector significantly affects both the environment and society, contributing to key challenges such as carbon emissions, high water and energy use, and labor practices. The sector plays an important role in promoting sustainability and fostering responsible environmental practices due to its significant share of global energy use, emissions, and resource utilization (Alsayegh et al., 2020). The real estate industry is responsible for approximately 40% of global combustion-related emissions, with 28% stemming from building operations rather than construction, which means that most emissions originate from maintaining and running buildings (McKinsey, 2024). Also, many global challenges are faced by this sector in the sustainability issues, including climate change, the provision of affordable housing, urban movement, and many more. the sector plays a crucial role in tackling global sustainability challenges, including urban expansion. Therefore, to address urban development, companies in this sector must integrate ESG practices to drive sustainability outcomes, making it essential to assess their performance on these urban movement and cheap housing factors.

The property and real estate sector is a capital-intensive industry and highly dependent on external capital markets to fund investment and growth. Thus, companies in this sector must have access to capital markets and a lower cost of debt to keep competitive. Indonesia's real estate sector has seen substantial expansion in recent decades, contributing significantly to the nation's economy. The sector is characterized by a mix of large public companies and smaller private developers. In Indonesia, the property and real estate sector plays a significant role in supporting economic growth. The combined impact of the shifting consumer expectations and regulatory mandates drives property developers to integrate ESG aspects into their strategies and project execution, which can elevate the reputation and credibility of companies in this sector, improving their access to capital and reducing financing costs. Considering the sector's growing influence and its broad economic implications, companies in this sector must adopt sustainable business practices and strengthen their ESG disclosures to align with investor, regulatory, and public expectations, and therefore transparency, as a crucial component of good governance, is fundamental to a well-functioning real estate market, supporting informed decision-making and collaborative efforts among stakeholders (Ionascu, 2019).

There is several research on the relationship between ESG disclosure, firm value, and profitability. However, the findings of the studies have not been consistent and conclusive. Several studies have documented a positive relationship between firm value, profitability, and ESG (Aydoğmuş et al., 2022; Putri & Mulyantini, 2025; Lu and Abeysekera, 2014; Sandberg et al., 2022;

Alsayegh et al., 2020; Ahmad et al., 2021; Abdi et al., 2021; Bahadori et al., 2021). In contrast, some studies have found a negative correlation between ESG disclosure and financial performance (Duque-Grisales & Aguilera-Caracue, 2021; Fatemi et al., 2017; Mikial et al., 2018). Atan et al. (2022) found that there was no significant relationship between individual and combined factors of ESG and firm profitability (i.e., ROE) as well as firm value (i.e., Tobin's Q). Other studies found mixed relationships between firm value, profitability, and each ESG component disclosure (Almeyda & Darmansyah, 2019; Abdi et al., 2021). In addition, other studies also found mixed relationships between firm value, profitability, and combined ESG disclosure (Velte, 2017; Chen et al., 2023). The conflicting results may be due to differences in methodologies, data sources, and the specific context of the studies.

As the property and real estate companies play significant contribution in addressing ESG issues in Indonesia while maintaining their financial performance, the growing ESG reporting under various standards, and investor concern on sustainability risks and opportunities which affect financial condition of companies, therefore the purpose of this research is to investigate the relationship of firm value and profitability with ESG disclosures in the property and real estate companies listed on the Indonesian Stock Exchange. The adoption of this standard may attract more investors and creditors by providing more capital access. The analysis utilizes the SASB standards to assess the extent and quality of ESG disclosures and determine the ESG score for each company. The study of ESG disclosure using the SASB standards for the property and real estate sector in Indonesia has not been explored by many researchers. Currently, the ESG score is one of the concerns considered by investors, although not all companies listed on the Indonesian stock exchange already have the ESG score. SASB is an industry-specific standards that require a company to provide sustainability risks, opportunities, and related metrics that are expected to affect its financial performance. The standard is most relevant for investor decision-making, and it has been widely adopted in many jurisdictions around the world.

The specific research questions are (1) What is the ESG score using SASB for property and real estate listed companies in IDX? (2) What is the relationship between firm value and profitability with ESG disclosure in property and real estate companies in Indonesia? (3) What is the relationship of firm value with ESG disclosure in property and real estate companies in Indonesia? (4) What is the relationship of profitability with ESG disclosure in property and real estate companies in Indonesia?, while the objectives of this study are: (1) To determine the ESG index for each property and real estate company (2) To examine the relationship between firm value, profitability, and ESG disclosure in property and real estate companies in Indonesia (3) To examine the relationship between firm value and ESG disclosure in property and real estate companies in Indonesia. (4) To examine the relationship between profitability and ESG disclosure in property and real estate companies in Indonesia.

LITERATURE REVIEW

This study is built upon several theoretical frameworks, including stakeholder theory, signaling theory, the concept of shared value, and resource dependency theory.

Stakeholder Theory

Stakeholder theory underlines the interconnected relationships between a company and its various stakeholders (Freeman et al., 2010), and a company's success is not solely based on maximizing shareholder value but also on addressing the interests of all parties who influence or are influenced by the business, including customers, suppliers, employees, investors, communities, and even competitors (Brugha, 2000). Aydoğmuş et al. (2022), Putri and Mulyantini (2025), Lu and Abeysekera (2014), Alsayegh et al. (2020), Ahmad et al. (2021), Abdi et al. (2021), Bahadori et al.

(2021), [Fatemi et al. \(2017\)](#), [Mikial et al. \(2018\)](#), [Atan et al. \(2022\)](#), [Almeyda and Darmansyah \(2019\)](#), [Velte \(2017\)](#), and [Chen et al. \(2023\)](#) used the stakeholder theory to investigate the relationship between financial performance and ESG.

Signaling Theory

Signaling theory explains behaviors by two parties, the sender and receiver, when they (individuals or organizations) have access to different information. Typically, the sender must choose whether and how to communicate the information or the signal, and the receiver must choose how to interpret the information or the signal ([Connelly et al., 2010](#)). Signaling theory can be used to describe a company's way of hinting to investors about management's perspective on the company's future. Signaling theory emphasizes how crucial a company's released information is for external parties making investment decisions. [Alsayegh et al. \(2020\)](#), and [Chen et al. \(2023\)](#) applied the signal theory to investigate the relationship between financial performance and ESG.

The Concept of Shared Value

The concept of shared value, developed by Porter and Kramer, is closely aligned with stakeholder theory. This approach suggests that companies can increase their competitiveness and long-term viability by aligning their core business strategies with societal well-being. It argues that businesses, by focusing on shared value, can find economic opportunities in social problems. By tackling societal challenges such as environmental sustainability, workforce development, and community investment, businesses can unlock new opportunities for growth and innovation while simultaneously generating positive social and environmental impact ([Jun & Kim, 2021](#)). [Alsayegh et al. \(2020\)](#) applied the concept of shared value to investigate the relationship between financial performance and ESG.

Resource Dependency Theory

Resource Dependency Theory examines how companies manage their reliance on external resources and emphasizes that companies prioritize stakeholders who control critical resources to ensure their survival ([Fei et al., 2024](#)). It also explains how a company's past resource usage can influence its future resource acquisition and allocation, as past resource allocation decisions can create path dependencies that will shape future choices.

Furthermore, the relationship between firm value, profitability, and sustainability disclosure has been a topic of considerable interest in the academic literature. Existing research has provided insights into the potential linkages between firm value, profitability, and sustainability performance or disclosure for companies in various industries and contexts, with mixed results.

Research with a positive relationship between firm value, profitability, and ESG disclosure

Several studies have documented the relationship between firm value, profitability, and ESG. [Bualay \(2019\)](#) investigated banks for ten years (2007-2016) and revealed that there was a significant positive impact of ESG on the performance (ROA, ROE, and Tobin's Q). A study by [Aydoğmuş et al. \(2022\)](#) for 5000 publicly listed companies from the Bloomberg database (market cap of USD 2.85 billion and above) from 2013 to 2021 found that the ESG combined score had a positive and highly significant relationship with profitability and firm value. ESG also had highly significant positive relationships with profitability. In addition, Social and Governance had highly significant positive relationships with firm value, while Environment had no relationship with firm value. Therefore, increased disclosure of ESG information could improve a firm's reputation and legitimacy, ultimately leading to higher firm value. Sub-Sector Services company of Property and Real Estate listed on the Indonesia Stock Exchange in 2013-2017 found that Corporate Social

Responsibility (CSR) had a positive effect on corporate financial performance as measured by Return on Asset, CSR had a positive effect on corporate financial performance as measured by Return on Equity, and CSR had a positive effect on the company's financial performance as measured by Net Profit Margin.

In addition, [Putri and Mulyantini \(2025\)](#) studied manufacturing companies listed on the Indonesia Stock Exchange (IDX) in 2021-2023 and revealed that profitability had a positive effect on ESG performance. If profitability is high, the better the ESG performance of a company. Also found that profitability had a positive influence on the CSR disclosure index of the manufacturing companies that are listed in Indonesia Stock Exchange. A study by [Lu and Abeysekera \(2014\)](#) on a social responsibility ranking list of Chinese listed firms suggested that corporate social and environmental disclosures had significant and positive associations with profitability, firm size, and industry classification, which suggests that companies with higher profitability would tend to disclose more CSR responsibility information to the public to demonstrate their good corporate citizen and not merely profit-oriented. [Shao \(2022\)](#) found that there was a significant positive relationship between ESG performance and Return on Equity (ROE) and Debt to Asset Ratio (DAR) on a study of listed companies in China's real estate industry from 2018 to 2020, which suggested that companies should strengthen the ESG information disclosure information for companies in the real estate industry, formulate corresponding ESG policies and continuously deepen the application of enterprise ESG management. A study by [Sandberg et al. \(2022\)](#) in the European food industry found that higher ESG ratings were associated with better financial performance. [Alsayegh et al. \(2020\)](#) on a study among Asian firms, revealed that disclosing the implementation of environmental and social strategies within an effective system of corporate governance in the organization strengthened corporate sustainability performance, while environmental performance and social performance were significantly positively related to economic sustainability performance, indicating that the corporation's economic value and creating value for society were interdependent. According to research conducted by [Ahmad et al. \(2021\)](#), ESG had a positive and significant impact on the financial performance of UK firms. [Abdi et al. \(2021\)](#) found that in the airline industry, a company's participation in social and environmental activities positively and significantly affects a higher level of financial efficiency. Another study by [Bahadori et al. \(2021\)](#) over 600 firms drawn from the Thomson Reuters Eikon database between the years 2014 and 2018 also found that companies with higher ESG scores experienced greater levels of profitability, with firm size and leverage used as control variables.

Research with a negative relationship between firm value, profitability, and ESG disclosure

[Duque-Grisales and Aguilera-Caracue \(2021\)](#) examined 104 multinational companies in Latin America from 2011 to 2015 and found a negative relationship between ESG scores and financial performance. [Fatemi et al. \(2017\)](#) found that companies with ESG concerns benefited from ESG-related disclosure, while firms with ESG strengths experienced lower valuation effects when they intensified their disclosure efforts. When isolated, ESG disclosure is also found to decrease firm value. Ebenhaezer & Rahayu (2022) investigated the impact of profitability on ESG in the financial sector in Indonesian companies and found that profitability has a significantly negative effect on ESG. A study by [Mikial et al. \(2018\)](#) on companies listed on the Indonesia Stock Exchange from 2013 to 2016 revealed that disclosure of environmental information had a negative effect on financial performance due to the high costs associated with extensive environmental reporting.

Research with no relationship between firm value, profitability, and ESG disclosure

[Atan et al. \(2022\)](#) found that individual and combined factors of ESG had no significant relationship with firm profitability proxied by ROE and firm value proxied by Tobin's Q based on a

study of the top 100 largest companies listed on Bursa Malaysia and Nasdaq OMX Copenhagen.

Research with a mixed relationship between firm value, profitability, and ESG disclosure

[Almeyda and Darmansyah \(2019\)](#) on companies in the real estate sector from G7 countries revealed that there was a significant positive relationship between the ESG disclosure with company's Return on Assets and Return on Capital. Partially, it was found that there was a significant positive relationship between the environmental factors towards the company's ROC and share price, while there was no significant relationship between the social factor and governance factor with the company's financial performance. A study by [Abdi et al. \(2021\)](#) on 38 airlines worldwide found that the governance dimension had a positive relationship with firm value. However, the social and environmental dimensions are insignificant but negative. Companies in Turkey found that environmental practices had a significantly negative impact on financial performance, socially responsible practices had a significantly positive impact on financial performance, and governance practices had a significantly positive effect on financial performance.

Another study by [Velte \(2017\)](#) on companies listed on the German Prime Standard (DAX30, TecDAX, MDAX) found that ESG performance had a positive impact on ROA, but no impact on Tobin's Q. Profitability had a positive influence on the CSR disclosure index of the manufacturing companies listed on the Indonesia Stock Exchange. The relationship between financial performance and firm value against ESG for companies from 5 (five) ASEAN countries (Indonesia, Malaysia, Singapore, Thailand, and the Philippines for the period 2015 to 2022 revealed that financial performance (ROA) did not influence ESG, while firm value harmed ESG. According to a study by [Chen et al. \(2023\)](#) using a sample of some listed organizations worldwide over an interval of 10 years (2011–2020), ESG performance was positively interrelated with financial performance. Also, the influence of ESG rating on financial performance was significant for large-scale companies and insignificant for small-scale companies.

These conflicting results may be due to differences in methodologies, data sources, and the specific context of the studies. The varied results highlight the necessity for deeper investigation into the relationship between sustainability disclosure, firm value, and profitability, particularly within Indonesia's property and real estate sector. Furthermore, the specific relationships of ESG disclosures based on SASB standards on companies in this industry remain largely unexplored. Accordingly, the following hypotheses are formulated:

H1: Firm value has a positive and significant relationship with ESG in property and real estate companies listed on the Indonesian Stock Exchange.

H2: Profitability has a positive and significant relationship with ESG in property and real estate companies listed on the Indonesian Stock Exchange.

H3: Firm value and profitability have a positive and significant relationship with ESG in property and real estate companies listed on the Indonesian Stock Exchange.

RESEARCH METHOD

To effectively examine the research question, this study will adopt a quantitative approach, incorporating data regression analysis and the evaluation of secondary data. This methodological framework aligns with prior studies that have explored the relationship between sustainability disclosure and financial performance ([Handayani & Rokhim, 2023](#); [Alsayegh et al., 2020](#); [Mikial et al., 2018](#)). Moreover, the research design is shown below:

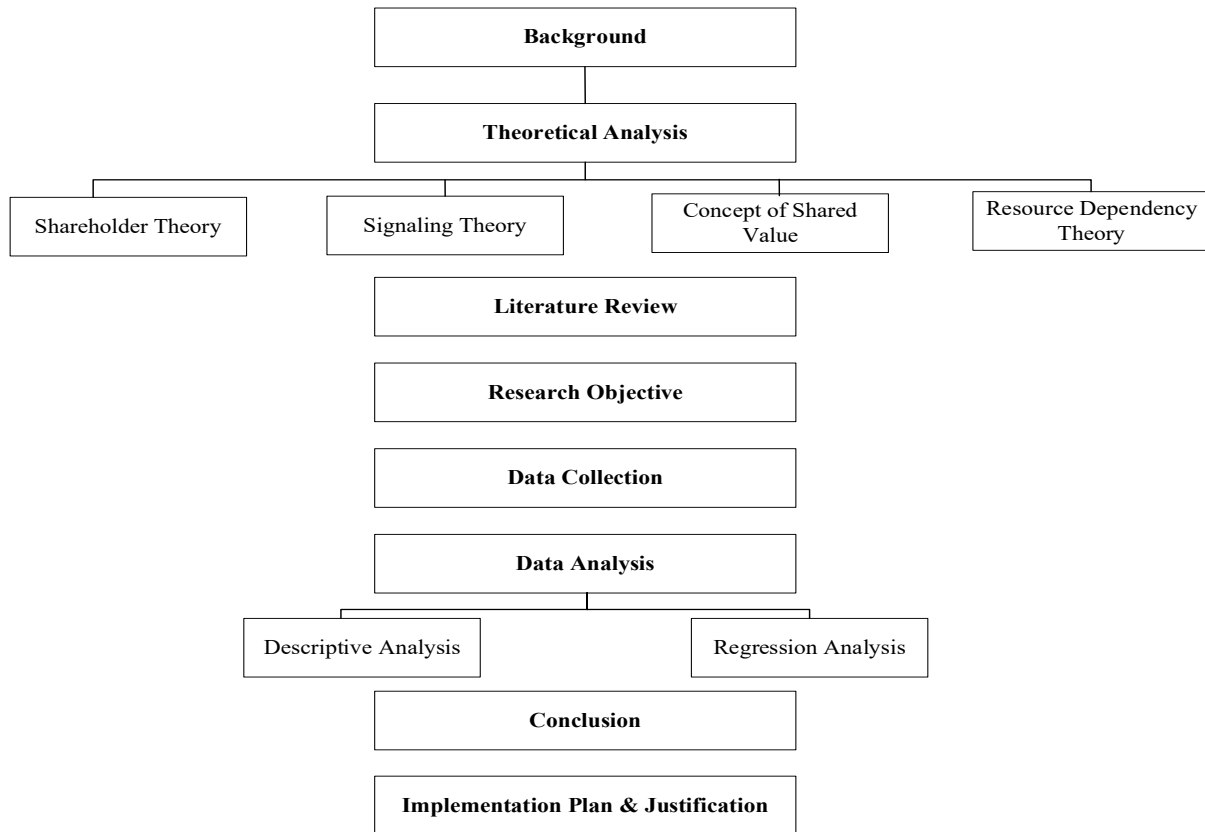


Figure 1. Research Design
(Author's analysis)

The dependent variable in this study is ESG Disclosure. ESG Disclosure is measured by the degree of environmental, social, and governance disclosure based on the Sustainability Accounting Standards Board framework, which will be assessed through content analysis. Content analysis is a research method used to systematically analyze the content of communication (Ahmad et al., 2021). In research, quantitative content analysis is a suggested method to quantify content from written materials according to predetermined categories and in a systematic and replicable way (Bell et al., 2019). This is relevant for company communication, like sustainability or annual reports. Before doing content analysis, a company will be assessed in the industry/industries in which it operates. For example, if a company operates in real estate, hotel & lodging, and the home builder industry, then it will be assessed against criteria in those 3 industries. The steps in the content analysis in this study are: (1) identifying SASB Standards' Disclosure Topics, Related Metrics and Activity Metrics for the industries, (2) Developing pre-defined groups to find patterns and relationship between the content studied, and developing self-created scoresheet, (3) Conducting content analysis on disclosures of Sustainability Report to answer the fulfillment of information according to SASB standards' Disclosure Topics, Related Metrics and Activity Metrics. When matching and classifying the data to the groups, coding is used to find a connection between the content, and (4) finally providing a score of 1 for available disclosures or 0 for unavailable disclosures.

For control variables, this study will use the natural logarithm of total assets as a proxy for firm size (Callen, 1988; Hendrawan et al., 2020; Haidar & Sohail, 2021; Xie et al., 2022). This study will also use the leverage as a control variable (Aydoğmuş et al., 2022). The sample will be selected through purposive sampling. The purposive sampling method in this study is based on the criteria of listed property and real estate companies in the development board as of August 14, 2024, which have already issued both annual reports and sustainability reports for the year 2023. A

development board is a board provided for listing shares of mid-size companies that are expected to grow. Therefore, the research does not heavily depend on how many samples are drawn from the population, but rather emphasizes the information obtained from the population. By using content analysis on sustainability reports and annual reports for an exploratory study of ESG practices in the specific sector, such as property and real estate companies in the development board, this study can get more ESG insights in the property and real estate sector companies in the development board with 32 samples. In addition, a regression model can still be run with more than 25 samples for stable inference when the variance is moderate (Jenkins & Quintana-Ascencio, 2020).

The data for this study will be collected from the publicly available annual reports and sustainability reports of the 32 companies, obtained from the Indonesia Stock Exchange website or the company website.

Table 1a. Research Sample List

No.	Ticker	Company
1	ADCP	PT Adhi Commuter Properti Tbk.
2	AMAN	PT Makmur Berkah Amanda Tbk.
3	ATAP	PT Trimitra Prawara Goldland Tbk.
4	BAPA	PT Bekasi Asri Pemula Tbk.
5	BBSS	PT Bumi Benowo Sukses Sejahtera Tbk
6	BCIP	PT Bumi Citra Permai Tbk.
7	CSIS	PT Cahayasakti Investindo Sukses Tbk
8	CITY	PT Natura City Developments Tbk.
9	DART	PT Duta Anggada Realty Tbk.
10	EMDE	PT Megapolitan Developments Tbk.
11	FMII	PT Fortune Mate Indonesia Tbk
12	GMTD	PT Gowa Makassar Tourism Development Tbk
13	GPRA	PT Perdana Gapuraprima Tbk.
14	HOMI	PT Grand House Mulia Tbk.
15	INDO	PT Royalindo Investa Wijaya Tbk.
16	INPP	PT Indonesian Paradise Property Tbk
17	JRPT	PT Jaya Real Property Tbk.
18	LPLI	PT Star Pacific Tbk
19	MKPI	PT Metropolitan Kentjana Tbk.
20	MPRO	PT Maha Properti Indonesia Tbk.
21	NIRO	PT City Retail Developments Tbk.

Table 1b. Research Sample List (continued)

No.	Ticker	Company
22	NZIA	PT Nusantara Almazia Tbk.
23	PAMG	PT Bima Sakti Pertiwi Tbk.
24	PANI	PT Pantai Indah Kapuk Dua Tbk.
25	MORE	PT Pollux Hotels Group Tbk.
26	PURI	PT Puri Global Sukses Tbk.
27	RISE	PT Jaya Sukses Makmur Sentosa Tbk
28	SATU	PT Kota Satu Properti Tbk.

29	SMDM	PT Suryamas Dutamakmur Tbk.
30	TRIN	PT Perintis Trinita Properti Tbk.
31	UANG	PT Pakuan Tbk.
32	URBN	PT Urban Jakarta Propertindo Tbk.

This research applies multiple linear regression model with cross-sectional data. Multiple linear progression is chosen to estimate the relationship between one dependent variable and multiple independent variables. The sample will be selected through purposive sampling. The purposive sampling method in this study is based on criteria of property and real estate companies in the development board listed on the Indonesian Stock Exchange that have published both annual report and sustainability report for year 2023. In order to examine the relationship of firm value and profitability with ESG disclosure, the following regression model will be estimated:

$$ESG = a + b_1 \text{ Firm Value} + z_1 \text{ Firm Size} + z_2 \text{ Leverage} + e$$

$$ESG = a + b_1 \text{ Profitability} + z_1 \text{ Firm Size} + z_2 \text{ Leverage} + e$$

$$ESG = a + b_1 \text{ Firm Value} + b_2 \text{ Profitability} + z_1 \text{ Firm Size} + z_2 \text{ Leverage} + e$$

Where:

a	=	the constant or intercept term of the regression model, representing the predicted value of the dependent variable when all independent variables are set to zero
b	=	the regression coefficients, representing the impact of the independent variable on the dependent variable
z	=	control variables
e	=	the error term
ESG Disclosure	=	SASB-based ESG disclosure score
Firm Value	=	Tobin's Q ratio or Market-to-Book Ratio
Profitability	=	Return on Assets
Firm Size	=	Natural logarithm of total assets
Leverage	=	Debt to Asset Ratio

Tobin's Q ratio is calculated by adding the market value of equity to the book value of debt, and then dividing by total assets. The market value of equity is calculated by multiplying the number of outstanding shares by the closing price of the share, both obtained from Yahoo Finance. Return on Assets is calculated by net income divided by total assets. Book value of debt, net income, total assets, and total debt are taken from audited financial statements.

The analysis will be conducted using regression analysis by IBM SPSS Statistical V. 26 software to examine the relationship between the firm value, profitability, and the level of ESG disclosure and of property and real estate companies in Indonesia. The multiple regression analysis is well suitable to analyze the relationship between multiple variables simultaneously. It can show both the degree and the direction (positive/negative) of the relationship.

FINDINGS AND DISCUSSION

The results of the ESG score based on content analysis are described in the table below:

ESG Score Results

Table 2a. ESG Score Results

	DISCLOSURE TOPIC/COMPANY TICKER	ADCP	AMAN	ATAP	BAPA	BBSS	BCIP	CSIS	CTTY	DART	EMDE	FMII	GMTD	GPRA	HOMI	INDO	INPP
NO.	REAL ESTATE INDUSTRY																
1	Energy Management	-	0	-	-	0	-	0	-	0	0	-	-	0	-	0	3
2	Water Management	-	0	-	-	0	-	0	-	0	0	-	-	0	-	0	1
3	Management of Tenant Sustainability Impacts	-	0	-	-	0	-	0	-	0	0	-	-	0	-	0	0
4	Adaptation	-	0	-	-	0	-	0	-	0	0	-	-	0	-	0	0
5	Activity Metrics	-	2	-	-	1	-	1	-	3	2	-	-	2	-	2	2
	Sub Total Disclosure of Real Estate Industry	-	2	-	-	1	-	1	-	3	2	-	-	2	-	2	6
NO	HOTELS & LODGING																
1	Energy Management	0	0	-	-	-	-	-	-	0	-	-	-	0	-	-	1
2	Water Management	0	0	-	-	-	-	-	-	0	-	-	-	0	-	-	0
3	Ecological Impacts	2	1	-	-	-	-	-	-	2	-	-	-	2	-	-	1
4	Labour Practices	1	0	-	-	-	-	-	-	1	-	-	-	1	-	-	1
5	Climate Change Adaptation	0	0	-	-	-	-	-	-	0	-	-	-	0	-	-	0
6	Activity Metrics	1	3	-	-	-	-	-	-	4	-	-	-	2	-	-	2
	Sub Total Disclosure of Hotels & Lodging	4	4	-	-	-	-	-	-	7	-	-	-	5	-	-	5
NO.	HOME BUILDER INDUSTRY																
1	Land Use & Ecological Impacts	2	-	1	1	-	1	1	1	-	1	1	2	2	2	-	1
2	Workforce Health & Safety	1	-	1	1	-	0	1	1	-	1	1	1	1	0	-	1
3	Design for Resource Efficiency	0	-	0	0	-	0	0	0	-	0	0	1	1	0	-	1
4	Community Impacts of New Developments	1	-	0	0	-	1	1	2	-	2	0	3	1	0	-	0
5	Climate Change Adaptation	0	-	0	0	-	0	0	0	-	0	0	2	0	0	-	0
6	Activity Metrics	0	-	2	1	-	2	0	2	-	1	1	2	2	1	-	0
	Sub Total Disclosure of Home Builder Industry	4	-	4	3	-	4	3	6	-	5	3	11	7	3	-	3
	Total Disclosure	8	6	4	3	1	4	4	6	10	7	3	11	14	3	2	14
	Number of Maximum Disclosure based on SASB	30	31	17	17	18	17	35	17	31	35	17	17	48	17	18	48
	ESG Score	0.27	0.19	0.24	0.18	0.06	0.24	0.11	0.35	0.32	0.20	0.18	0.65	0.29	0.18	0.11	0.29

Table 2b. ESG Score Results (continued)

	DISCLOSURE TOPIC/COMPANY TICKER	JRPT	LPLI	MKPI	MPRO	NIRO	NZIA	PAMG	PANI	OMRE	PURI	RISE	SATU	SMDM	TRIN	UANG	URBN
NO.	REAL ESTATE INDUSTRY																
1	Energy Management	0	3	2	3	1	-	0	-	0	-	4	-	-	-	-	-
2	Water Management	0	1	0	1	0	-	1	-	0	-	2	-	-	-	-	-
3	Management of Tenant Sustainability Impacts	0	0	0	0	0	-	0	-	0	-	0	-	-	-	-	-
4	Adaptation	0	0	1	0	0	-	0	-	0	-	0	-	-	-	-	-
5	Activity Metrics	3	2	3	1	1	-	3	-	2	-	1	-	-	-	-	-
	Sub Total Disclosure of Real Estate Industry	3	6	6	5	2	-	4	-	2	-	7	-	-	-	-	-
NO.	HOTELS & LODGING																
1	Energy Management	0	-	0	-	0	-	-	-	0	-	1	0	0	-	-	-
2	Water Management	0	-	0	-	0	-	-	-	0	-	0	0	0	-	-	-
3	Ecological Impacts	2	-	1	-	1	-	-	-	1	-	1	1	2	-	-	-
4	Labour Practices	1	-	2	-	0	-	-	-	2	-	0	1	0	-	-	-
5	Climate Change Adaptation	0	-	0	-	0	-	-	-	0	-	0	0	0	-	-	-
6	Activity Metrics	3	-	4	-	1	-	-	-	3	-	2	3	3	-	-	-
	Sub Total Disclosure of Hotels & Lodging	6	-	7	-	2	-	-	-	6	-	4	5	5	-	-	-
NO.	HOME BUILDER INDUSTRY																
1	Land Use & Ecological Impacts	2	-	1	0	-	1	-	2	-	2	2	2	2	2	2	2
2	Workforce Health & Safety	1	-	1	0	-	1	-	1	-	1	0	0	0	0	1	1
3	Design for Resource Efficiency	0	-	1	0	-	0	-	0	-	2	0	0	0	0	0	0
4	Community Impacts of New Developments	2	-	1	1	-	1	-	1	-	1	1	1	2	1	0	1
5	Climate Change Adaptation	0	-	1	0	-	0	-	1	-	1	1	0	0	0	0	1
6	Activity Metrics	2	-	2	2	-	2	-	2	-	2	1	1	2	1	0	1
	Sub Total Disclosure of Home Builder Industry	7	-	7	3	-	5	-	7	-	9	5	4	6	4	3	6
	Total Disclosure	16	6	20	8	4	5	4	7	8	9	16	9	11	4	3	6
	Number of Maximum Disclosure based on SASB	48	18	48	35	31	17	18	17	31	17	48	30	30	17	17	17
	ESG Score	0.33	0.33	0.42	0.23	0.13	0.29	0.22	0.41	0.26	0.53	0.33	0.30	0.37	0.24	0.18	0.35

The results of the analysis calculation show that the highest ESG score is 0.65 (PT Gowa Makassar Tourism Development Tbk (GMTD) and the lowest is 0.11 (PT Royalindo Investa Wijaya Tbk (INDO)), with the average ESG score being 0.27. This shows that only 2 of 32 companies that obtained an ESG score more than 0.5 are PT Gowa Makassar Tourism Development Tbk (GMTD) with ESG score of 0.65 and PT Pantai Indah Kapuk Dua Tbk (PANI) with ESG score is 0.53). This implies that most property and real estate companies do not fully apply ESG in accordance with SASB standards. This can be understood because the use of SASB standards is not mandatory for property and real estate companies.

The market segments of property and real estate companies vary from commercial real estate, industrial real estate, hotels, logging, and residential estate. As seen in the table, 5 companies operate in all three industries, 10 companies operate in two industries, and 17 companies operate in a single industry. Of the 17 companies operating in a single segment, 13 companies operate in the home builder industry, and 4 companies operate in the real estate industry. It can be concluded that more than 50% of companies in the property and real estate development board in this study operate in the home builder industry.

Descriptive Analytics

Descriptive analysis of this research was carried out through descriptive statistical tests in the form of average (mean), standard deviation, min, and max values as follows:

Table 3. Descriptive Analysis

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Tobin's Q	32	0.30	8.93	1.5241	1.72592
ROA	32	-0.07	0.09	0.0106	0.03360
Size	32	25.47	30.40	28.0284	1.35570
DAR	32	0.00	1.01	0.3681	0.24726
ESG	32	0.06	0.53	0.2538	0.11899
Valid N (listwise)	32				

From the table above, (1) The Tobin's Q variable showed the largest value of 8.93 and the lowest value of 0.30 with mean value of 1.52, which means that the data deviation on this variable can be said to be not good because the standard deviation value of 1.72 is greater than the mean value of 1.52; (2) The ROA variable showed the largest value of 0.09 and the lowest value of -0.07 with mean value of 0.01, which means that the data deviation in this variable can be said to be not good because the standard deviation value is 0.03 which is greater than the mean value of 0.01; (3) The Firm Size showed the largest value of 30.40 and the lowest value of 25.47 with mean value of 28.03, which means that the data deviation on this variable can be said to be good because the standard deviation value of 1.36 is smaller than mean value of 28.03; (4) The DAR showed the largest value of 1.01 and the lowest value of 0.00 with mean value of 0.37, which means that the data deviation on this variable can be said to be good because the standard deviation value of 0.25 is lower than mean value of 0.37, and (5) The ESG showed the largest value of 0.53 and the lowest value of 0.06 with mean value of 0.25, which means that the data deviation on this variable can be said to be good because the standard deviation value of 0.12 is smaller than the value mean of 0.25.

Classical Assumption Test

Normality Test

The normality test is carried out with the aim of testing whether in the regression model, confounding variables or residuals have a normal distribution (Ghozali, 2021: 196).

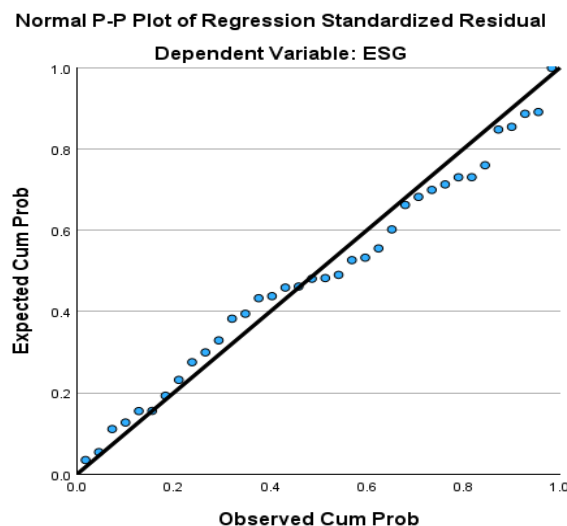


Figure 2. Graphic Analysis P-Plot Regression Residual Standard

As seen in the graphic, the spread of data is near the diagonal line and in the same direction of the diagonal line. Therefore, the normality assumption is met for regression model.

Statistical Analysis

Additionally, the test results using the Kolmogorov-Smirnov test are shown in the following table:

Table 4. Kolmogorov-Smirnov Test

One-Sample Kolmogorov-Smirnov Test			
			Unstandardized Residual
N			32
Normal Parameters ^{a,b}	Mean		0.0000000
	Std. Deviation		0.09530977
Most Extreme Differences	Absolute		0.091
	Positive		0.091
	Negative		-0.056
Test Statistic			0.091
Asymp. Sig. (2-tailed) ^c			.200 ^d
Monte Carlo Sig. (2-tailed) ^e	Sig.		0.705
	99% Confidence Interval	Lower Bound	0.694
		Upper Bound	0.717

From above table, the Kolmogorov-Smirnov normality test results show a significance value of 0.200, higher than the significance level of 0.05. This means that the data in this study are normally distributed, and it can be concluded that the normality assumption is met.

Multicollinearity Test

The multicollinearity test is used to test whether there is a correlation between the independent variables in the regression model.

Table 5. Tolerance and VIF Test

<u>Coefficients^a</u>								
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-0.216	0.398		-0.543	0.592		
	Tobin's Q	-0.003	0.011	-0.037	-0.240	0.812	0.985	1.015
	ROA	1.993	0.615	0.563	3.239	0.003	0.788	1.269
	Size	0.015	0.015	0.170	1.020	0.317	0.860	1.162
	DAR	0.096	0.084	0.200	1.145	0.262	0.780	1.282
a. Dependent Variable: ESG								

From the test results above, each independent variable has a tolerance value >0.10 and a VIF value <10, so there is no multicollinearity between the independent variables in the regression model.

Heteroscedasticity Test

The heteroscedasticity test is to test whether in the regression model there is an inequality of variance from the residuals of one observation to another.

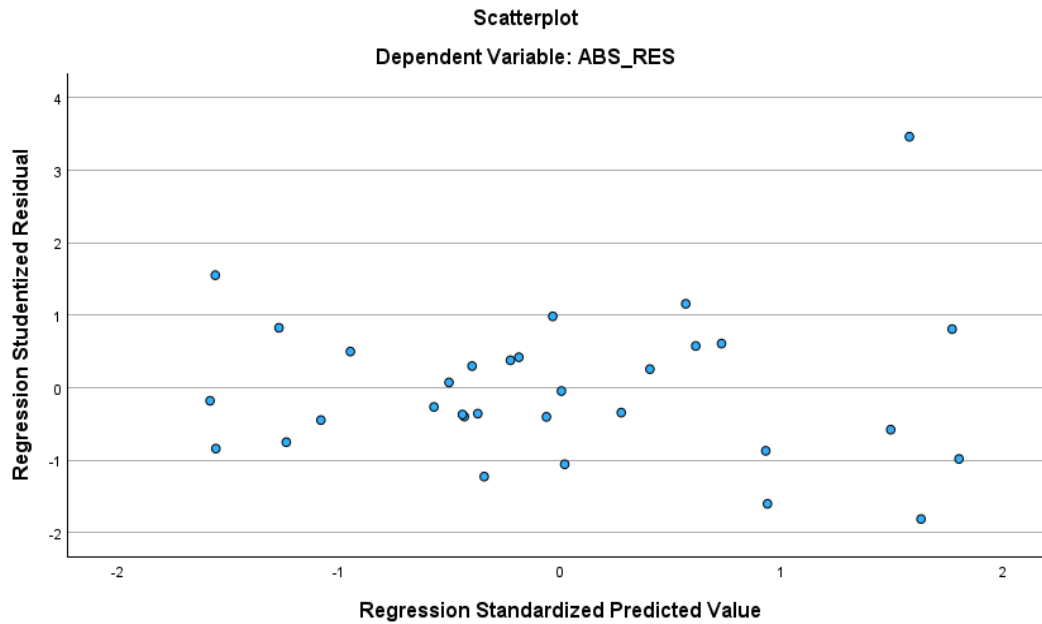


Figure 3. Graphic Scatterplot Regression Standardized Predicted Value

Based on the scatterplot test, the pattern is not clear, and the spread of the points is above and below the number 0 on the Y axis, so there is no heteroskedasticity. In addition to the scatterplot test, the result of the Glejser Test is as follows:

Table 6. Glejser Test

<u>Coefficients^a</u>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	0.387	0.237		1.631	0.115		
	Tobin's Q	-0.001	0.006	-0.031	-0.165	0.871	0.985	1.015
	ROA	0.327	0.367	0.185	0.890	0.381	0.788	1.269
	Size	-0.012	0.009	-0.272	-1.372	0.181	0.860	1.162
	DAR	0.051	0.050	0.213	1.022	0.316	0.780	1.282
a. Dependent Variable: ABS_RES								

Based on the test results, the significance value of the Glejser test for each independent variable is greater than 0.05, so there is no heteroscedasticity problem in the regression model.

Hypothesis Testing

The Coefficient of Determination (R^2 Test)

The coefficient of determination is a test to find out how well the model explains the dependent variable. R^2 is the coefficient of multiple determination, meaning how much the independent variable can explain the dependent variable. The value of this coefficient of determination is between 0 and 1. The higher the value (R^2), the better the independent variable is in explaining the dependent variable (Ghozali, 2021).

Table 7. Coefficient of Determination

Model Summary^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.599 ^a	0.358	0.263	0.10213	1.675
a. Predictors: (Constant), DAR, Tobin's Q, Size, ROA					
b. Dependent Variable: ESG					

From the table above, the R^2 value is 0.358, which means the independent variables (firm value and profitability) can explain the dependent variable (ESG disclosures) by 35.80%. So, the remainder (100% - 35.80%) = 64.20% is the influence of variables other than the variables studied. It can be concluded that there are many factors influencing ESG disclosures, such as board composition, ownership structure, risk exposure, and media attention.

F Statistical Test

The F test is used to find out whether all independent variables together have a significant relationship with the dependent variable or not. If the probability value is less than 0.05 (for a significance of 0.05) then the independent variables together have a relationship on the dependent variable. If the probability value is more than 0.05, then the independent variable simultaneously does not affect the dependent variable.

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.157	4	0.039	3.772	.015 ^b
	Residual	0.282	27	0.010		
	Total	0.439	31			
a. Dependent Variable: ESG						
b. Predictors: (Constant), DAR, Tobin's Q, Size, ROA						

Table 8. F-Statistical Test

From the table above, the significance value is 0.015, which means that the independent variables simultaneously have a significant relationship with ESG disclosure.

T Statistical Test

The T-test is used to find out and test how far the influence of independent variables individually/partially explains the dependent variable (Ghozali, 2021). The significance level in this test is 0.05, by looking at the significance value (t) for each variable in the output of the regression analysis results table. If the significance of t is smaller than 0.05, then there is a significant relationship between both variables; however, if the significance of t is higher than 0.05, then there is no significant relationship between both variables.

Table 9. T-Statistical Test

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-0.216	0.398		-0.543	0.592		
	Tobin's Q	-0.003	0.011	-0.037	-0.240	0.812	0.985	1.015
	ROA	1.993	0.615	0.563	3.239	0.003	0.788	1.269
	Size	0.015	0.015	0.170	1.020	0.317	0.860	1.162
	DAR	0.096	0.084	0.200	1.145	0.262	0.780	1.282
a. Dependent Variable: ESG								

Based on the partial test results above, the firm value variable has a significance value of 0.812, which is higher than 0.05, so it can be concluded that firm value has no significant relationship with ESG disclosure; the ROA has a significance value of 0.003, which is lower than 0.05, so it can be concluded that ROA has significant relationship with ESG disclosure; the firm size variable has a significance value of 0.317, which is higher than 0.05, so firm size has no significant relationship with ESG disclosure; and the DAR has a significance value of 0.262, which is higher than 0.05, so DAR has no significant relationship with ESG disclosure.

Model Regression Analysis Equation

The results of the panel data regression analysis are as follows:

Constant = -0.216

Tobin's Q = -0.003 (significance value of 0.812)

ROA = 1.993 (significance value of 0.003)

Size = 0.015 (significance value of 0.317)

DAR = -0.096 (significance value of 0.262)

$R^2 = 0.358$

The conclusions that can be drawn from the results of the panel data regression analysis are the constant of -0.216 indicates that if the independent variables are constant, the ESG disclosure score will be -0.734; the Tobin's Q variable as a proxy for firm value has a negative and insignificant relationship with ESG disclosure; the ROA variable as a proxy for profitability has a positive and significant relationship with ESG disclosure; the firm size has positive and insignificant relationship with ESG disclosure; the DAR has negative and insignificant relationship with ESG disclosure; and the coefficient of determination is 0.358, which indicates that 35.8% of the variation in ESG disclosure can be explained by the independent variables. Therefore, the regression equation for this model is:

$$\text{ESG Disclosure} = -0.216 - 0.003\text{Tobin's Q} + 1.993\text{ROA} + 0.015\text{Size} - 0.096\text{DAR}$$

Interpretation Results and Analysis

The Relationship of Firm Value and ESG Disclosure

The results of the multiple regression analysis show that the firm value has no significant effect on ESG disclosures. Therefore, the results suggest that improving ESG practices and disclosure may not directly translate to higher firm value in the Indonesian property and real estate

sector. The result is consistent with a study by [Atan et al. \(2022\)](#), who also found no significant relationship between individual or combined factors of ESG and firm profitability, proxied by ROE, and firm value, proxied by Tobin's Q in Malaysian listed companies. [Velte \(2017\)](#) also found that ESG performance does not affect Tobin's Q. The findings may be explained by several factors. One of the factors is that market participants may not fully recognize and reward the ESG benefits. For example, investors may prioritize traditional financial metrics such as profitability and growth rather than non-financial performance measures ([Aydoğmuş et al., 2022](#)), the positive effects of ESG disclosure may not be immediately materialized, meaning the effect on firm value might be more long-term ([Ahmad et al., 2021](#); [Fatemi et al., 2017](#)), the importance of ESG practices for long-term value creation have not been fully acknowledged by market participants in Indonesia ([Aydoğmuş et al., 2022](#)), and the absence of uniform evaluation metrics and the extended timeline for ESG benefits make it difficult to establish a direct correlation between disclosure and firm value. Another factor is related to regulatory compliance, that property and real estate companies may prioritize regulatory mandates and industry standards on ESG disclosure levels rather than firm value considerations ([Yilmaz, 2022](#)). Also, according to stakeholder theory, companies disclose ESG-related information mainly to satisfy stakeholder expectations or enhance their public image rather than directly increase firm value ([Chauhan & Kumar, 2018](#)). In addition, ESG measurement using the SASB framework may not sufficiently capture the aspects of ESG practices that are most valued by Indonesian investors.

This finding contrasts with previous studies that indicate that ESG disclosure may reduce firm value ([Fatemi et al., 2017](#)), while other research suggests that enhanced ESG transparency strengthens firm value by improving reputation and legitimacy, supporting theories such as stakeholder theory and legitimacy theory ([Veeravel et al., 2024](#); [Aydoğmuş et al., 2022](#)). Additionally, [Abdi et al. \(2021\)](#) found a positive relationship between the Governance dimension of ESG and firm value. However, the Social and Environmental dimensions were found to be insignificant or negatively correlated with firm value.

The Relationship of Profitability and ESG Disclosure

The profitability, as measured by Return on Assets (ROA), has a significant relationship with the extent of ESG disclosure. This result is consistent with previous research demonstrating a positive relationship between ROA and ESG disclosures in the property and real estate sector in Indonesia ([Almeyda & Darmansyah, 2019](#)). In other sectors, this result is also consistent with previous research demonstrating a positive relationship between ROA and ESG disclosures ([Putri & Mulyantini, 2025](#)). Other studies also found that ESG disclosure had a significant effect on profitability ([Aydoğmuş et al., 2022](#); [Bahadori et al., 2021](#); [Velte, P., 2017](#); [Ahmad et al., 2021](#); [Lu & Abeysekera, 2014](#); [Shao, 2022](#); [Abdi et al., 2021](#); [Bahadori et al., 2021](#); [Sandberg et al., 2022](#); [Veeravel et al., 2024](#)). In addition, according to a study by [Chen et al. \(2023\)](#), the influence of ESG rating on financial performance is significant for large-scale companies but insignificant for small-scale companies. The possible explanation for the significant relationship of Return on Assets (ROA) with ESG disclosure can be due to several factors, such as the fact that highly profitable companies have more financial resources to allocate toward ESG initiatives and reporting efforts, or companies with strong profitability tend to engage with more stakeholders, which leads to more comprehensive ESG disclosures. Other possible reasons are that financial benefits, such as cost efficiency, can drive ESG initiatives and reporting. From a theoretical perspective, this finding is aligned with the principles of stakeholder theory that profitable companies disclose more ESG aspects under multiple standards, which are more transparent to stakeholders.

However, this finding is contradictory with previous studies that found profitability had no relationship with ESG disclosure, profitability had a significantly negative effect on ESG, or ESG

disclosure hurt financial performance ([Duque-Grisales & Aguilera-Caracue, 2021](#); [Mikial et al., 2018](#)).

The Relationship of Firm Value and Profitability with ESG Disclosure

The results from the multiple regression analysis indicate that firm value and profitability jointly have a significant relationship with ESG disclosures. This implies that both firm value and profitability serve as key factors in determining the extent of ESG disclosure among property and real estate companies listed on the Indonesian Stock Exchange. This finding is consistent with a previous study in the property and real estate sector in Indonesia found a significant influence of firm value and profitability jointly on ESG disclosures. This finding is also consistent with previous studies in other sectors, such as those by [Aydoğmuş et al. \(2022\)](#), [Buallay \(2019\)](#), and [Veeravel et al. \(2024\)](#), which found a significant influence of firm value and profitability jointly on ESG disclosures.

This finding may show that companies with higher market valuations and higher profitability often have larger financial resources to allocate to their investments toward sustainability initiatives. In addition, the broad stakeholders of these companies may cause pressures or motivation to disclose ESG aspects more comprehensively. By intensifying ESG reporting, these companies often view ESG reporting as a strategic communication tool to show their ESG responsible practices to stakeholders, which can potentially strengthen their reputation in the market.

The Relationship of Firm Size and ESG Disclosure

The results from the multiple regression analysis indicate that firm size has no significant relationship with ESG disclosure. This finding is consistent with prior studies, which found that company size does not affect ESG disclosure. It means that larger companies do not necessarily disclose more extensive ESG topics, even though they probably have systems, procedures, or technology to collect more ESG data than smaller ones. The possible explanation for the finding is that other factors, such as regulatory requirements or industry standards, may be more decisive than company size in ESG disclosures.

This finding is inconsistent with previous research indicating that firm size, measured by the natural logarithm of total assets, had a positive and significant correlation with sustainability performance ([Alsayegh et al., 2020](#); [Aydoğmuş et al., 2022](#); [Lu & Abeysekera, 2014](#)).

The Relationship of Leverage and ESG Disclosure

The leverage (as measured by DAR) has an insignificant relationship with ESG disclosure. This suggests that a company's debt level does not significantly influence its decision to disclose ESG information. The findings align with previous research indicating that leverage, measured through Debt-to-Asset Ratio (DAR) or Debt-to-Equity Ratio (DER), does not have a significant impact on ESG disclosure ([Putri & Mulyantini, 2025](#)).

Several factors may explain this insignificant relationship. The property and real estate sector is inherently capital-intensive, with companies relying heavily on debt financing for growth and operations, which means leverage may not be a primary factor influencing ESG disclosure practices. Other factors include that companies with high leverage might not see ESG reporting as a tool for signaling financial stability to stakeholders like investors and lender as their credit ratings and financial statements may sufficiently provide this information, companies with lower leverage may not prioritize ESG disclosure as reduced pressure from lenders to showcase sustainability commitments, or the SASB framework used to evaluate ESG may not fully capture the nuances of how a company's leverage position influences its ESG reporting decisions.

This result is inconsistent with previous research indicating a positive and significant relationship between leverage and ESG disclosure, suggesting that highly leveraged firms may face greater pressure to adopt sustainable practices and enhance their reporting transparency. Another study found that leverage has a negative and significant impact on CSR disclosure, implying that firms with higher debt levels may be less inclined to prioritize corporate social responsibility initiatives.

Business Solutions

Property and real estate companies in Indonesia should enhance the quality and comprehensiveness of their ESG reporting, align it with more international standards, and meet investor expectations. Utilizing several reporting frameworks for the property and real estate sector, even if not mandatory currently, such as the SASB standards, can enhance transparency and show a strong commitment to sustainability. This approach will help attract broader investors as they can better assess the sustainability performance and generate informed decision-making. Furthermore, investors and financial institutions should assess the quality of ESG disclosures for insight into risks, and incorporate ESG factors, particularly those aligned with SASB standards, into their investment assessments of property and real estate companies in Indonesia. Also, policymakers should adopt various approaches to advancing ESG reporting by introducing targeted incentives, sector-specific guidelines, and educational programs. These efforts can raise awareness among companies of all sizes, improve ESG transparency, and align disclosure practices with more globally recognized frameworks such as SASB and GRI.

Implementation Plan & Justification

In this implementation and justification plan, a framework for addressing sustainability issues and challenges for property and real estate companies is presented which aligns them with ESG strategy, risk, performance, and reporting in order to gain financial benefits and improve the company's reputation. According to [Chopra et al. \(2024\)](#), companies should position ESG reporting at the core of their operations and strategies. The framework will be shown in the flowchart below:

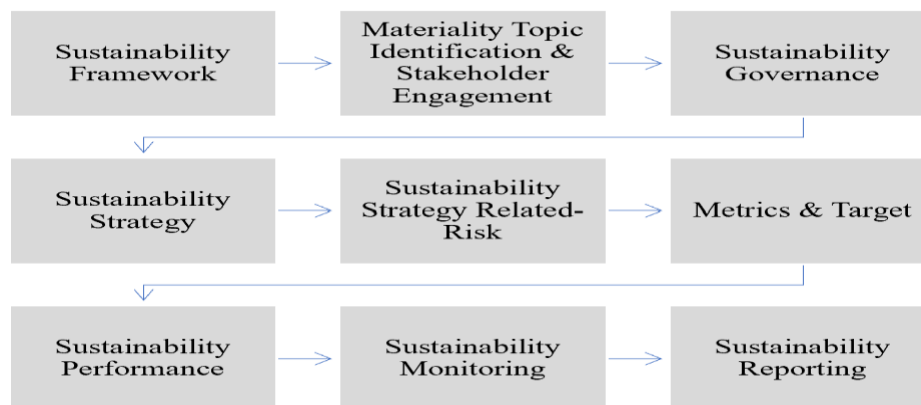


Figure 4. Implementation Plan Chart
(Author's analysis)

Framework explanation:

1. Sustainability Framework
2. A sustainability framework provides a structure for understanding and addressing sustainability challenges. Companies apply approaches to integrating sustainability into organizational practices, with the choice of framework, including a reporting framework,

depending on the specific needs and context of the company.

3. Materiality Topic Identification & Stakeholder Engagement

Companies determine the ESG topics or factors comprehensively that are most relevant and have a material impact on their business and stakeholders. Each ESG topic or factor is mapped to related stakeholders. In addition, material ESG issues that have financial implications are added using the disclosure topics under the SASB standards. A comprehensive review of materiality assessment can be conducted through various ways, such as peer benchmarking, period comparison, surveys, focus group discussions, or gap analysis.

4. Sustainability Governance

Companies integrate a sustainability framework into organizational structure, which emphasizes ESG priorities across all organizational levels, including a sustainability governance structure that formulates ESG strategy and provides direction, oversight, and accountability, which enable the companies to serve their stakeholders responsibly.

5. Sustainability Strategy & Related Risk

- Companies integrate ESG principles into their core operations and strategies. When the ESG strategy is well planned, it can provide a competitive edge and support long-term business success.

- Property and Real Estate companies identify their ESG risks that could affect their business, operations, and financial aspects and assess their likelihood and impacts. The sustainability risks, as part of the company's risks, are then integrated into the broader risk management frameworks.

6. Sustainability Metrics & Target

Companies set measurable ESG performance objectives for assessing their sustainable practices. This process includes selecting relevant key performance indicators for sustainability, employing appropriate assessment tools ([Gadenne et al., 2012](#)), and defining short, medium, and long-term targets.

7. Sustainability Performance

To enhance ESG outcomes, companies execute the strategies and implement targeted initiatives through specific programs or projects, such as optimizing energy consumption, reducing waste, improving labor conditions, and fostering diversity and inclusion ([Aydoğmuş et al., 2022](#)).

8. Sustainability Monitoring & Revision

Companies review sustainability performance, collect relevant data, monitor progress against targets, identify areas for improvement, and revise sustainability initiatives and targets when required.

9. Sustainability Reporting

Companies communicate sustainability strategies and risks, performance, and related metrics, among other to stakeholders through transparent and comprehensive reporting under various reporting frameworks to capture broader stakeholders, including SASB standards for investors.

CONCLUSIONS

This research is conducted with the purpose of analyzing the relationship between firm value and profitability with ESG disclosures under SASB standards within property and real estate companies listed on the Indonesian Stock Exchange, using a sample of 32 publicly listed property and real estate companies on the Indonesian Stock Exchange.

The findings of this research highlight that firm value and profitability jointly have a significant relationship with ESG disclosure in the property and real estate sector. This emphasizes their collective role in shaping ESG reporting within Indonesia's property and real estate sector. However, the results also show that firm value, as represented by Tobin's Q, does not significantly affect ESG disclosure, which means that a company's market valuation does not drive sustainability reporting efforts. Conversely, profitability, as measured by ROA, has a significant effect on ESG disclosure, which means that financial performance plays a more important role than firm value in promoting more comprehensive ESG reporting in the sector. Furthermore, firm size, measured by total assets, and leverage, represented by the Debt to Assets ratio (DAR), do not show a significant relationship with ESG disclosure. This suggests that the extent of sustainability reporting among property and real estate companies in Indonesia is not determined by the size of the company or the level of leverage in the company. This research strengthens the stakeholder theory for profitable companies as these companies disclose more ESG aspects under multiple standards, which are more transparent to stakeholders. However, non-profitable companies do not necessarily challenge stakeholder theory as the effect of ESG disclosure may be seen in the long term. Regardless of the result of this research, the research supports signaling theory as a sustainability report is crucial for external parties making investment decisions. Furthermore, highly profitable companies have more financial resources to allocate toward ESG initiatives and reporting efforts, or companies with strong profitability tend to engage with more stakeholders, which leads to more comprehensive ESG disclosures. It is recommended that property and real estate companies in Indonesia should enhance the quality and comprehensiveness of their ESG reporting, align it with more international standards, and meet investor expectations. Policymakers should adopt various approaches to advancing ESG reporting by introducing targeted incentives, sector-specific guidelines, and educational programs. These efforts can raise awareness among companies of all sizes, improve ESG transparency, and align disclosure practices with more globally recognized frameworks such as SASB and GRI.

LIMITATION & FURTHER RESEARCH

This study has several limitations that should be acknowledged. First, the study utilizes the SASB framework to evaluate ESG disclosure, which may not fully capture the complexities of sustainability reporting in the property and real estate sector in Indonesia. Second, the study is based on a relatively small sample of 32 companies and covers only a single year, which may restrict the generalizability of the findings. Third, since the study exclusively focuses on Indonesian property and real estate companies, the results may not apply to other industries or geographic contexts. Fourth, the research follows a cross-sectional design, while a longitudinal study could provide deeper insights into the evolving relationship between ESG disclosure, firm value, and profitability over time. The longitudinal study can observe whether there are changes in ESG disclosure quality over time, such as dual or multiple adoption of ESG standards.

Future research can overcome these limitations by investigating different ESG measurement frameworks beyond SASB, expanding the sample size and geographic scope to improve generalizability, and adopting a longitudinal design to better understand the dynamic relationships over time. Future research can also explore the influence of additional financial metrics, such as cost of capital, access to financing, and long-term growth, on ESG disclosure to develop a more comprehensive understanding of sustainability reporting's financial implications. Moreover, further studies could investigate the causal mechanisms between financial performance and ESG disclosure, focusing on certain aspects such as stakeholder engagement, risk management, and operational efficiency. Further research can also add intervening or moderating variables to find out how financial performance affects ESG disclosure if it is mediated or moderated by other

variables.

REFERENCES

- Abdi, Y., Li, X., & Càmara-Turull, X. (2021). Exploring the impact of sustainability (ESG) disclosure on firm value and financial performance in the airline industry: The moderating role of size and age. *Environment, Development and Sustainability*, 24(4), 5052–5079. <https://doi.org/10.1007/s10668-021-01649-w>
- Ahmad, N., Mobarek, A., & Roni, N. N. (2021). Revisiting the impact of ESG on financial performance of FTSE 350 UK firms: Static and dynamic panel data analysis. *Cogent Business & Management*, 8(1), Article 1900500. <https://doi.org/10.1080/23311975.2021.1900500>
- Almeyda, R., & Darmansyah, A. (2019). The influence of environmental, social, and governance (ESG) disclosure on firm financial performance. *IPTEK Journal of Proceedings Series*, (5), 278–290.
- Alsayegh, M. F., Rahman, R. A., & Homayoun, S. (2020). Corporate economic, environmental, and social sustainability performance transformation through ESG disclosure. *Sustainability*, 12(9), Article 3910. <https://doi.org/10.3390/su12093910>
- Atan, R., Alam, M. M., Said, J., & Zamri, M. (2018). The impacts of environmental, social, and governance factors on firm performance: Panel study of Malaysian companies. *Management of Environmental Quality: An International Journal*, 29(2), 182–194. <https://doi.org/10.1108/MEQ-03-2017-0033>
- Aydoğmuş, M., Gülay, G., & Ergun, K. (2022). Impact of ESG performance on firm value and profitability. *Borsa Istanbul Review*, 22(S1), S119–S127. <https://doi.org/10.1016/j.bir.2022.11.006>
- Bahadori, N., Kaymak, T., & Seraj, M. (2021). Environmental, social, and governance factors in emerging markets: The impact on firm performance. *Business Strategy & Development*, 4(4), 411–422. <https://doi.org/10.1002/bsd2.167>
- Bell, E., Bryman, A., & Harley, B. (2019). *Business research methods* (5th ed.). Oxford University Press.
- Brugha, R. (2000). Stakeholder analysis: A review. *Health Policy and Planning*, 15(3), 239–246. <https://doi.org/10.1093/heapol/15.3.239>
- Buallay, A. (2019). Is sustainability reporting (ESG) associated with performance? Evidence from the European banking sector. *Management of Environmental Quality: An International Journal*, 30(1), 98–115. <https://doi.org/10.1108/MEQ-12-2017-0149>
- Callen, J. L. (1988). Estimating the cost of equity capital using Tobin's Q. *The Engineering Economist*, 33(4), 349–362. <https://doi.org/10.1080/00137918808966961>
- Chen, S., Song, Y., & Gao, P. (2023). Environmental, social, and governance (ESG) performance and financial outcomes: Analyzing the impact of ESG on financial performance. *Journal of Environmental Management*, 345, Article 118829. <https://doi.org/10.1016/j.jenvman.2023.118829>
- Chauhan, Y., & Kumar, S. B. (2018). Do investors value the nonfinancial disclosure in emerging markets? *Emerging Markets Review*, 37, 32–46. <https://doi.org/10.1016/j.ememar.2018.05.001>
- Chițimiea, A., Minciu, M., Manta, A.-M., Ciocoiu, C. N., & Veith, C. (2021). The drivers of green investment: A bibliometric and systematic review. *Sustainability*, 13(6), Article 3507. <https://doi.org/10.3390/su13063507>
- Chopra, S. S., Senadheera, S. S., Dissanayake, P. D., Withana, P. A., Chib, R., Rhee, J. H., & Ok, Y. S. (2024). Navigating the challenges of environmental, social, and governance (ESG) reporting: The path to broader sustainable development. *Sustainability*, 16(2), Article 606.

- <https://doi.org/10.3390/su16020606>
- Connelly, B. L., Certo, S. T., Ireland, R. D., & Reutzel, C. R. (2011). Signaling theory: A review and assessment. *Journal of Management*, 37(1), 39–67. <https://doi.org/10.1177/0149206310388419>
- Duque-Grisales, E., & Aguilera-Caracuel, J. (2021). Environmental, social and governance (ESG) scores and financial performance of multilatinas: Moderating effects of geographic international diversification and financial slack. *Journal of Business Ethics*, 168, 315–334.
- Fatemi, A. M., Glaum, M., & Kaiser, S. (2018). ESG performance and firm value: The moderating role of disclosure. *Global Finance Journal*, 38, 45–64. <https://doi.org/10.1016/j.gfj.2017.03.001>
- Fei, Y., Fang, L., Luo, Z., & Liang, W. (2024). Resource dependence and enterprise ESG performance: An empirical study based on A-share listed companies. *Frontiers in Ecology and Evolution*, 12, Article 1344318. <https://doi.org/10.3389/fevo.2024.1344318>
- Freeman, R. E., Harrison, J. S., Wicks, A. C., Parmar, B. L., & de Colle, S. (2010). *Stakeholder theory: The state of the art*. Cambridge University Press.
- Gadenne, D., Mia, L., Sands, J., Winata, L., & Hooi, G. (2012). The influence of sustainability performance management practices on organisational sustainability performance. *Journal of Accounting & Organizational Change*, 8(2), 210–235. <https://doi.org/10.1108/18325911211230380>
- Ghozali, I. (2021). *Aplikasi analisis multivariat dengan program IBM SPSS 26*. Badan Penerbit Universitas Diponegoro.
- Haidar, H. M., & Sohail, R. M. (2021). Sustainability reporting disclosure and value relevance of listed Saudi firms. *Open Journal of Business and Management*, 9(4), 1782–1799. <https://doi.org/10.4236/ojbm.2021.94097>
- Handayani, A., & Rokhim, R. (2023). A comparative study of financial performance between sustainable and conventional investment. *Journal of Entrepreneur & Business*, 4(2), 114–123. <https://doi.org/10.24123/jeb.v4i2.5691>
- Hendrawan, R., Fadhyala, N. R., & Aminah, W. (2020). Portfolio selection and performance using active and passive strategies: Assessing SRI-KEHATI Index (2013–2018). *Jurnal Siasat Bisnis*, 24(2), 199–212. <https://doi.org/10.20885/jsb.vol24.iss2.art9>
- Hyske, A., Lönnroth, M., Savilaakso, A., & Sievänen, R. (2022). What is responsible investment? In *Responsible investment* (pp. 1–14). Routledge. <https://doi.org/10.4324/9781003284932-2>
- Ionascu, E. (2019). Towards more transparency in the real estate sector through sustainability reporting. In *Proceedings of the 25th Annual European Real Estate Society Conference*. https://doi.org/10.15396/eres2019_319
- Jenkins, D. G., & Quintana-Ascencio, P. F. (2020). A solution to minimum sample size for regressions. *PLOS ONE*, 15(2), Article e0229345. <https://doi.org/10.1371/journal.pone.0229345>
- Jun, H., & Kim, M. (2021). From stakeholder communication to engagement for the sustainable development goals (SDGs): A case study of LG Electronics. *Sustainability*, 13(15), Article 8624. <https://doi.org/10.3390/su13158624>
- Lu, Y., & Abeysekera, I. (2014). Stakeholders' power, corporate characteristics, and social and environmental disclosure: Evidence from China. *Journal of Cleaner Production*, 64, 426–436. <https://doi.org/10.1016/j.jclepro.2013.10.005>
- McKinsey & Company. (2024, October 25). *What is decarbonization?* <https://www.mckinsey.com/featured-insights/mckinsey-explainers/what-is-net-zero>
- Mikial, M. S. Y., Marwa, T., Fuadah, L., & Meutia, I. (2018). The effects of environmental performance and environmental information disclosure on financial performance in

- companies listed on the Indonesia Stock Exchange. In *Proceedings of the 1st International Conference on Accounting, Management and Economics* (pp. 525–532). <https://doi.org/10.5220/0008442105250532>
- Putri, H. S., & Mulyantini, S. (2025). The effect of profitability, leverage, and digital transformation on environmental, social, and governance (ESG) performance in manufacturing companies. *International Journal of Management Finance*, 2(3), 24–35. <https://doi.org/10.62017/finance.v2i3.69>
- Sandberg, H., Alnoor, A., & Tiberius, V. (2022). Environmental, social, and governance ratings and financial performance: Evidence from the European food industry. *Business Strategy and the Environment*, 31(6), 2526–2540. <https://doi.org/10.1002/bse.3259>
- Shao, X. (2022). Empirical research of ESG performance and firm performance in Chinese real estate companies. In F. Balli et al. (Eds.), *ESFCT 2022* (pp. 1036–1044). Atlantis Press. https://doi.org/10.2991/978-94-6463-052-7_116
- The IFRS Foundation. (2025). *SASB® standards terminology and structure*. <https://sasb.ifrs.org/implementation-primer/>
- The IFRS Foundation. (2025). *Sustainable industry classification system®*. <https://sasb.ifrs.org/find-your-industry/>
- The IFRS Foundation. (2025). *Your pathway to ISSB*. <https://sasb.ifrs.org/sasb-your-pathway-to-issb/>
- Veeravel, V., Murugesan, V. P., & Narayanamurthy, V. (2024). Does ESG disclosure really influence firm performance? Evidence from India. *The Quarterly Review of Economics and Finance*, 95, 193–202. <https://doi.org/10.1016/j.qref.2024.03.008>
- Velte, P. (2017). Does ESG performance have an impact on financial performance? Evidence from Germany. *Journal of Global Responsibility*, 8(2), 169–178.
- Xie, Z., Wang, J., & Zhang, G.-Q. (2022). Impact of green innovation on firm value: Evidence from listed companies in China's heavy pollution industries. *Frontiers in Energy Research*, 9, Article 806926. <https://doi.org/10.3389/fenrg.2021.806926>
- Yilmaz, I. (2022). ESG-based sustainability performance and its impact on cost of capital: International evidence from the energy sector. *International Journal of Applied Economics, Finance and Accounting*, 12(2), 21–30. <https://doi.org/10.33094/ijaefa.v12i2.529>