

The Effect of Sustainability Reporting Disclosure, Environment, Social and Governance Rating, and Digital Banking Transactions on Firm Value with Financial Performance as an Intervening Variable (Case Study on Commercial Bank in Indonesia)

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Abstract

The purpose of this study is to examine the effect of disclosure on sustainability reporting (SR), environmental, social, and governance (ESG) ratings, and digital banking transactions on firm value (PBV) with financial performance (ROA) as an intervening variable. This study's population consists of eight Indonesian commercial banks listed on the Indonesia Stock Exchange and classified as KBMI 3 or 4 that released financial and sustainability reports between 2018 and 2022. The data analysis approach of this study is quantitative, with a casual design processed using Eviews 12. The result of this study shows that disclosure of sustainability reporting has a positive and significant influence on firm value of KBMI 3 and 4 category banks, whereas ESG ratings, digital banking transactions, and company performance have no effect.

Keywords: Sustainability Reporting Disclosure, ESG Rating, Digital Banking Transactions, PBV, ROA.

1. INTRODUCTION

Fundamentally, the value of a company, such as banking, can be assessed by calculating Price to Book Value (PBV), in which the valuation of share prices on the market compares to their book value. PBV reflects market confidence, where an increase in the PBV ratio reflects profits for the company which is automatically a profit for investors. (Harahap et al., 2020). PBV at Commercial Banks in Indonesia increased between 2018-2020 due to economic improvements in Indonesia which had an impact on the banking industry. The number of banking sector companies carrying out mergers and acquisitions has increased public confidence in the market. (CNBC Indonesia, 2019). Meanwhile, the Covid-19 pandemic caused a fall in Commercial Bank's PBV from 2020 to 2021. The significant increase of Covid-19 cases has had an impact on reducing the bank profits throughout 2020, because the majority of people tend to save rather than spend, as well as feeling excessive fear over the uncertain situation. (CNBC Indonesia, 2021). Because of this incident, market confidence fell, causing many bank share prices to fall and resulting in a decrease in PBV values. In 2021-2022, even though Covid-19 cases have leveled off, the economy has not yet fully recovered. The acceleration of the national economy slowed down due to political risks from the Russian and Ukrainian wars, high inflation, sharp increases in global monetary benchmark interest rates, and the cash is the king phenomena which made investors withdraw their funds

from developing countries. (Kompas.com, 2023). Even if the Commercial Banks's PBV remains above 1 in 2022, this decline reflects the fall of public confidence in the market.

One way for banks to address this challenge is by implementing sustainable business practices that align with government programs to achieve the 2030 Sustainable Development Goals (SDGs), which are agreements based on human rights and equality to promote social, economic, and environmental development. This is reflected through the application of sustainable financial principles and ESG aspects in the financial services companies' operations, where ESG is known as one of the parameters for implementing SDGs development. (USAID & OJK, 2017). Previous study has proven that the implementation of ESG by companies is critical for business continuity, since ESG may have a wide range of beneficial effects on a company's business performance. (Hastalona & Sadalia, 2021). Furthermore, in 2017, the Financial Services Authority Regulations (POJK), through the policy number 51/2017, requires the financial institutions to disclose ESG activities through a Sustainability Report, with the hope that it will have an impact on increasing the company's performance because it has run the business well and provided a sustainable impact for future generations.

In its reporting mechanism, SR in Indonesia use the Global Reporting Initiative (GRI) guidelines and framework of reference, where there are three minimum aspects that need to be considered in this report, namely: economic, environmental, and social. The GRI Standards create a common language for organizations and their stakeholders, so that the economic, environmental, and social impacts of organizations can be communicated and understood. This standard is designed to improve global comparability and quality of information on these impacts, thereby enabling greater organizational transparency and accountability. However, not all Commercial Banks disclose their SR available to the public. This can be seen from the growth in SR disclosures by Commercial Banks listed on the IDX during 2018-2021 which is not comparable to the number of Commercial Banks listed on the IDX. The disclosure of SR to the OJK is still low, only 8 to 11 Commercial Banks out of a total of 43 to 45 Commercial Banks listed on the IDX, reporting ESG activities in their business. This phenomenon occurs due to difficulties in providing company data related to practices that have environmental, social, and corporate governance impacts. According to OJK data, disclosure of the SR in Indonesia is still voluntary. (Damayanti & Hardiningsih, 2016). In 2021, 29 SR were reported to the OJK. This is thought to be due to the influence of the implementation of POJK 51/2017, which enforces the disclosure of SR in stages according to the characteristics and complexity of the business, starting from the banking sector in 2019, issuers and public companies in 2021 and the capital market in 2022.

Another way for banks to boost the value of their business is through ESG activities, which is significant for the banking industry since it allows consumers to consider this aspect when utilizing their financial products. The aim is that the products used not only have an economic impact, but also on the social and environment, as well as to promote the achievement of the SDGs. Aside from that, ESG enables competitive returns and diversification of investments based on the financial products used. ESG-based companies are more robust or have high resilience during times of crisis, and they may generate long-term value and profitability. (OJK, 2023). One of the ways the company promotes the ESG practice achievement is by disclosing the ESG ratings information to the public. A good ESG rating is the result of a strong ESG strategy and a company-wide commitment to implementation and continuous improvement. ESG strategies can also be an answer to corporate sustainability challenges and a means of opening up attractive opportunities for businesses and stakeholders. (Beritasatu.com, 2023). It has been empirically validated that companies with higher ESG rating tend to outperform companies with lower ESG rating in terms of stock performance and underlying financial metrics. (Steinhaeuser, 2022). Supported by Jeanice & Kim 's (2023) research, which states that individuals will tend to place

more trust in companies that have good ESG ratings. In contrast to companies that do not have an ESG rating, these companies will have more questionable credibility. However, contrary to this statement, Ningwati et al. (2022), and Whitelock (2015), and Mutmainnah & Asiah (2022), found a negative relationship between ESG reporting and company performance. Where previous research arguments are based on the fact that ESG-oriented companies, usually sacrifice their financial resources, which facing the disapproval from the stakeholders. According to the agency theory, an effective corporate governance mechanism must be capable of balancing the interests of managers and shareholders. Banks, in particular, have regulators who play an essential role in putting pressure to create corporate governance structures that are right on target, as well as the reporting.

According to Suharna (2022), banking digitalization has an important role in implementing sustainability business initiatives, for example digitalization facilitates support for economic recovery during the pandemic, development of small and medium businesses and economic inclusion of marginalized communities. Apart from that, digitalization also supports efforts to protect the environment by reducing the use of paper and fuel. Sustainable development and digitalization go hand in hand: to revive the economy, protect the environment and improve people's well-being. This digitalization has also proven to be very important in implementing sustainability initiatives and has an impact on bank financial performance. (Suharna, 2022). According to OJK (2016), digital banking transactions are activities that include independent banking services, including registration, transactions (cash, transfers, payments) and various other services, up to closing accounts.

In terms of the relationship between banking performance and digital banking carried out by banks, the author still discovered differences in earlier study. This is consistent with the findings of Wijayanti et al. (2021), who determined that internet banking had a negative and insignificant influence on banking performance in Indonesia based on financial reports from 2010-2019. However, Menicucci & Paolucci (2022) found a significant positive relationship with financial performance, as measured by Return on Equity (ROE), Return on Assets (ROA), and the bank's Sustainability Report.

Based on the agency theory, better corporate governance contributes to higher performance. Governance quality is the combined effect of a set of factors such as cultural diversity and gender equality within the board, board size, director competency and expertise, director independence, CEO-chairman duality, executive remuneration, and risk governance. (Suharna, 2022). In this research, company performance is proxied by Return on Assets (ROA). This can show the company's ability to generate net profits from asset management. According to Sihombing (2018:29) ROA is able to measure a company's ability to generate net profits based on a certain level of assets, where is a high ROA ratio indicates better efficiency and effectiveness in asset management. The banking performance ratio in Indonesia fell in 2018-2019, because there was a slowdown in profit growth caused by poor credit growth which had an impact on banking profits not being maximized. (Rasdianto, 2020). Then, there was another decrease in 2019-2020 due to the Covid-19 pandemic which hit all business sectors including banking. This caused many banks to be affected and experience a decline in profits in 2020. For example, BCA's net profit fell by 5%, BRI fell by 45.46% and Bank Mandiri fell by 37.71%. However, banking performance has increased again in 2021-2022 as a result of economic improvements in Indonesia, which are supported by regulatory measures from regulators which provide a conducive economic situation and conditions. Among other challenges, mitigating the impact of the Covid-19 pandemic, global supply chain disruption, rising global interest rates, and capital outflow as well as fulfilling public demands for banking products and services. (OJK, 2023). Fluctuations in banking performance can be caused by many things.

2. LITERATURE REVIEW

2.1 The Effect of Sustainability Reporting (SR) Disclosure on Company Value (PBV)

Profit is not the only measurement used to assess the company's ability in today's competitive climate; social and environmental factors also play a role. This statement is supported by Hidayat's (2021) research which proves that Corporate Social Responsibility (CSR) disclosure has a positive effect on company's value. This was also expressed in Kusumawardani's (2019) research, which stated that the SR requires a detailed and complex analysis of the relationship between ecology, resources, habitat and society so as to enable organizations to evaluate their contribution to the economy, environment and social both at the local, regional and global. According Lyan et al. (2021) compensation for the environment is as important as technology, economics and governance, this is a concern for many stakeholders, therefore the results of their research prove that SR disclosure has a positive effect on company value, which in line with research by Kurniawan et al. (2018). Based on the description and previous research, the hypothesis proposed is: *H1: SR disclosure has a positive effect on company value (PBV).*

2.2 The Influence of Environmental, Social and Governance (ESG) Ratings on Company Value (PBV)

ESG generally means a broad set of environmental, social and corporate governance considerations that have the potential to have an impact on a company's ability to implement its business strategy and build long-term value. (Ningwati et al., 2022). Apart from that, ESG can also be interpreted as a concept that prioritizes sustainable investment or business development activities with three main factors or criteria, namely environmental, social and governance. (Kompas.com, 2023). Differences in the interests of management and shareholders can lead to internal and external conflicts called agency conflicts. This is caused by company managers who prioritize interests that are not in line with the interests of shareholders. (Hendra et al., 2022). According to some studies, ESG activities are a catalyst for agency conflict between management and shareholders. Sadiq et al. (2020), Aras & Kazak (2022) and Yoon et al. (2018) found that ESG ratings have a positive effect on company value. Based on the description and previous research, the hypothesis proposed is: *H2: ESG rating has a positive effect on company value (PBV).*

2.3 The Effect of Digital Banking Transactions on Company Value (PBV)

The internet, marked the beginning of the growth of financial transaction features in banking, and the freedom of access is one of the things that is attractive to customers. (Moridu et al., 2020). Digital Banking is an electronic banking service that was developed in order to maximize the use of customer data in order to serve and provide information to customers more easily, quickly and according to their needs (customer experience), and it can be carried out independently by customers while taking security aspects into account. (Moridu et al., 2020). With the growth of digital banking transactions, company profits will increase, causing a positive reaction among investors and affecting company value. (Moridu et al., 2020). The influence of digital banking on company value is in line with the research by Moeljadi et al. (2021), which states that the banking industry is a critical component of the Indonesian economy in the current industry 4.0, with an influence on company value. This is in line with research by Nuraini et al. (2022). Based on the description and previous research, the hypothesis proposed is: *H3: Digital banking transactions have a positive effect on company value (PBV).*

2.4 The Effect of Sustainability Reporting (SR) Disclosure on the Financial Performance (ROA)

SR is a medium for companies to inform all stakeholders about organizational performance in economic, social and environmental aspects. (Tarigan & Semuel, 2015). ESG disclosure can provide benefits for companies and stakeholders. SR will lead to good decision making, transparency and sustainable financial stability. (Husada & Handayani, 2016). This is in line with research by Danika & Faradynawati (2018) which states that there is a significant positive relationship between ESG and financial performance. Meanwhile, the research results of Husada & Handayani (2016) show that ESG disclosure simultaneously influences ROA. Likewise with the research results of Nugroho & Hersugondo (2022) as well as Almeyda & Darmansya (2019). Based on the description and previous research, the hypothesis proposed is: *H4: SR disclosure has a positive effect on the company performance (ROA).*

2.5 The Effect of Environmental, Social and Governance (ESG) Ratings on the Financial Performance (ROA)

In Safriani & Utomo (2020) research, ESG disclosure, which includes non-financial information on a company's environment, social responsibility, and corporate governance, can be a favorable signal to investors. Engelhardt et al. (2021) stated that companies with better ESG performance had much higher cumulative earnings and showed much lower volatility at the start of the Covid-19 Pandemic in 2020. In line with the statement above, Pertiwi & Hersugondo (2023) states that ESG performance has a positive relationship with company performance. Likewise, research results from Vlaviorine & Widianingsih (2023) and Aditama (2022). Based on the description and previous research, the hypothesis proposed is: *H5: ESG Rating has a positive effect on the company performance (ROA).*

2.6 The Effect of Digital Banking Transactions on the Financial Performance (ROA)

Indonesia's digital economy will remain a key driver of inclusive growth in the years to come; with nearly three-quarters of the population connected, digital tools can expand access to health services, education, and employment. Fintech offers a route to reliable credit access, especially for unbanked MSMEs that also supports gender equality. Implementing existing solutions will empower Indonesian people throughout the archipelago, increase productivity results and improve socio-economic conditions. This provides the basis for further innovation to support ESG targets. (PWC & Oxford Business Group, 2021). According to Moridu et al. (2020) digital-based financial transaction features are widely used by customers in payment transactions, whether transfers, payments, credit, or purchasing products or other financial transactions. These various features of digital-based financial transactions cannot be separated from state-owned commercial banks, where the majority of their customers carry out digital-based financial transactions. With the increase in digital banking transaction activities, bank profitability also increases. In line with the statement above, Wijayanti et al. (2021) states that some digital banking transactions have an influence on bank performance. Likewise, the research results of Khadafi & Ruslan (2020) and Otieno (2020). Based on the description and previous research, the hypothesis proposed is: *H6: Digital banking transactions have a positive effect on the company performance (ROA).*

2.7 The Effect of Financial Performance (ROA) on the Company Value (PBV)

According to Pujarini (2020), a company's long-term objective is to maximize its value. The higher the company value, the more shareholder prosperity will increase. The company's main goal is to increase its value by increasing their revenue. (Mulyawati et al., 2015). This is in line with research by Nafasati & Hilal (2021) which states that financial performance influences company value. Likewise, the results of Pujarini (2020), Siswanti et al. (2015) and Siswanti &

Cahaya (2019) research stated that a company's financial performance influences company value. Based on the description and previous research, the hypothesis proposed is: *H7: The company performance (ROA) has a positive effect on company value (PBV).*

2.8 The Effect of Sustainability Reporting (SR) Disclosure on Company Value (PBV) Through Financial Performance (ROA)

According to Ningwati et al. (2022) financial performance describes the company's ability to manage and allocate its resources so that it is something that must be achieved by every business actor. It can be concluded that company performance is what the company has achieved in a certain period which is related to predetermined criteria. One of them is managing the company by publishing a SR which will maintain its legitimacy in the community as a form of accountability and openness of company operations. (Mutmainnah & Asiah, 2022). By disclosing the SR in accordance with the standards chosen by the company, especially in the economic category, it will be useful for increasing the value of the company in the eyes of investors. (Kurniawan et al., 2018). This is in line with the research results of Lyan et al. (2021) and Yulianty & Nugrahanti (2020). Based on the description and previous research, the hypothesis proposed is: *H8: SR disclosure has a positive effect on company value (PBV) which is influenced by company performance (ROA).*

2.9 The Influence of Environmental, Social and Governance (ESG) Ratings on Company Value (PBV) through Financial Performance (ROA)

According to Hastalona & Sadalia (2021) companies must pay more attention to social and environmental responsibility so that they can gain legitimacy for the role of social and environmental care carried out by the company, so that the company will gain trust and support from the community. This will have an impact on the company's survival in the future. This is a practice to measure, disclose and be accountable to all stakeholders both inside and outside the company. A company's ESG rating reports their performance towards sustainable development goals. ESG reports cover a company's use of resources, natural resources, human rights, and their level of corruption, how they invest in public relations, and more. Shareholders often look at ESG reports because they relate to a company's strength, risk management, and effectiveness. (Almeyda & Darmansya, 2019). Previous research found a relationship between ESG ratings and company value, like Sadiq et al. (2020) and Yoon et al. (2018), as well as a relationship between ESG ratings and company performance, researched by Pertiwi & Hersugondo (2023), Vlaviorine & Widianingsih (2023), and Zhou et al.'s (2022). Based on the description and previous research, the hypothesis proposed is: *H9: ESG rating has a positive effect on company value (PBV) which is influenced by the company performance (ROA).*

2.10 The Influence of Digital Banking Transactions on Company Value (PBV) Through Financial Performance (ROA)

Digital banking, when used by banks with appropriate management policies, has been shown to reduce unnecessary operational and labor costs. Apart from that, the use of documents is also reduced, and the level of efficiency and profits increases. The study shows that other aspects of digital banking and economic achievement can be researched. (Hakizimana et al., 2023). The application of information technology and digital transformation in digital banking services is expected to minimize time, distance, space and costs to expand access to affordable financial services. (Wijayanti et al., 2021). With the convenience provided by banks to customers, they can increase the volume of digital banking transactions. According to Khadafi & Ruslan (2020), the volume of digital banking transactions influences bank performance, as well as Moridu et al. (2020) and Fernando & Dharmastuti's (2021), stated that digital banking influences company

value. Based on the description and previous research, the hypothesis proposed is: *H10: Digital Banking transactions have a positive effect on company value (PBV) which is influenced by the company value (ROA).*

2.11 Conceptual Framework

Based on the description and hypothesis above, the conceptual framework for this research is as follows:

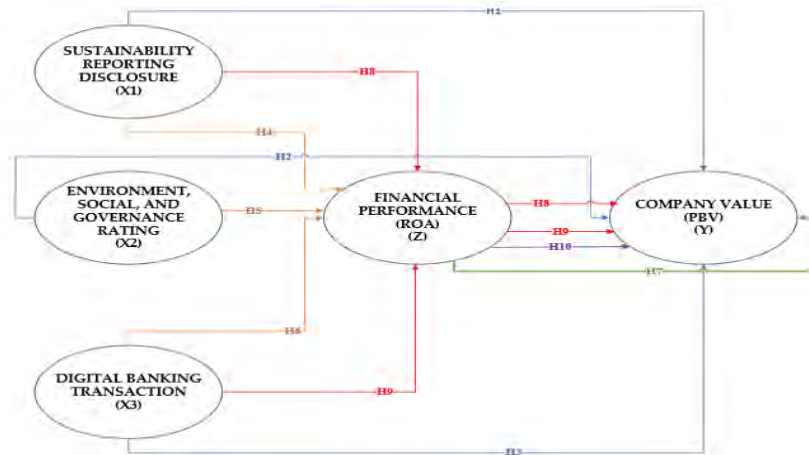


Figure 1. Conceptual Framework

3. METHODOLOGY

This research is quantitative research using a causality research design. Quantitative research is research that is based on positivity or uses concrete data, research data in the form of numbers measured using statistics as a calculation test tool, related to the problem being studied to produce a conclusion. (Sugiyono, 2013:7). Meanwhile, causality research design, namely measuring the strength of the relationship between two or more variables, also shows the direction of the relationship between the independent variable and the dependent variable. According to Sugiyono (2013:7), casual research aims to determine the cause-and-effect relationship between the independent variable and the dependent variable. In this study, the dependent variable is company value (PBV), while the independent variables include SR disclosure, ESG rating, and digital banking transactions. The author also includes an intervening variable, financial performance (ROA), which is considered to affect the relationship between the independent and dependent variables.

Disclosure of company data relating to activities carried out by the company includes Economics (EC), Environment (EN) and Social aspects. The social aspect consists of four sub-dimensions, namely: Labor, Human Rights, Society, and Product Responsibility. These three aspects are measured using a score on the Sustainability Report performance value which is in accordance with GRI standards. (GRI, 2011) which can be formulated as follows:

$$\text{Sustainability Reporting Disclosure Index (SRDI)} = \frac{\sum \text{disclosed item}}{\sum \text{items that are expected to be disclosed}}$$

Source: GRI (2011)

ESG refers to three main factors for measuring the impact of sustainability and ethics in investment decision making, namely: Environmental, Social and Governance where the preparation of ESG rating is an important part in evaluating the implementation of ESG practices

in companies. (IDX, 2022). Furthermore, based on the Sustainalytics's grading framework, listed companies are grouped into one of 5 categories, as follows.

Table 1. Sustainalytics Grading Framework

Risk Score	Category	Description
0-10	Negligible	Considered to have negligible ESG risk
10-20	Low	Considered to have low ESG risk
20-30	Medium	Considered to have moderate ESG risk
30-40	High	Considered to have a high ESG risk
>40	Severe	Considered to have a severe ESG risk

Source: IDX (2022)

Activities that include independent banking services include registration, transactions (cash, transfers, payments) and various other services, including closing the bank accounts. (OJK, 2016). The number of digital banking transaction activities supported by several devices can be explained as: 1. Automated Teller Machine (ATM); 2. Electronic Data Capture (EDC); 3. Internet Banking; 4. Short Message Service (SMS) Banking; 5. Mobile Banking; 6. Electronic Commerce (e-commerce); 7. Phone Banking; and 8. Video Banking. (OJK, 2016).

Company value reflects the company's current value or present value. It is an indicator of how the market assesses the company as a whole. High company value can be a reflection of a good company and is related to high shareholder prosperity. (Pujarini, 2020). Likewise, a low company value describes a company that is not good and reflects low shareholder prosperity. In this research, company value is proxied by book value or PBV. According to Sihombing (2018:30) the PBV ratio is quite significant in predicting future stock returns. This is strengthened by the opinion of Fama and French (1992) who observed that the PBV ratio is the best predictor of future stock returns. Companies with low PBV consistently have lower returns compared to companies with high PBV. The PBV ratio value can be calculated using the following formula:

$$Price\ to\ Book\ Value = \frac{Price\ of\ Share}{Book\ Value\ per\ Share}$$

Source: Sihombing (2018:30)

According to Sihombing (2018) profitability ratios are measured using the link between net profit and assets. In other words, ROA measures a company's ability to generate net profits based on a certain level of assets. A high ROA ratio indicates increasingly efficient and effective asset management. ROA is used to measure bank profitability performance by looking at how effectively bank assets are used to generate profits. The greater the ROA, the greater the level of profit achieved by the bank and the better the bank's position in using assets. (Wijayanti et al., 2021). In banking, ROA is a useful measure of how well a bank manager does his job because it shows how well the bank's assets are used to generate profits, taking into account profit after tax, namely the current year's net profit after tax with the average total assets obtained from the sum of total assets each month divided by the number of months. (OJK, 2020). The ROA formula can be written as follows:

$$ROA = \frac{\text{Earning After Tax}}{\text{Total Asset}}$$

Source: Sihombing (2018:29)

The population in this research is commercial banks listed on the Indonesia Stock Exchange (IDX) for the 2018-2022 period. The total population obtained in this research was 46 companies. The sample in this research is commercial banks listed on the Indonesia Stock Exchange for the 2018-2022 period which report complete financial reports along with published sustainability reports. Determining the sample in this study used purposive sampling, namely the sample was selected according to the criteria determined by the author. The following is a sample list of Commercial Bank companies:

Table 2. List of Sample

No.	Code	Bank
1.	BBRI	Bank Rakyat Indonesia (Persero) Tbk.
2.	BMRI	Bank Mandiri (Persero) Tbk.
3.	BBNI	Bank Negara Indonesia (Persero) Tbk.
4.	BBCA	Bank Central Asia Tbk.
5.	BBTN	Bank Tabungan Negara (Persero) Tbk.
6.	BNGA	Bank CIMB Niaga Tbk.
7.	NISP	Bank OCBC NISP Tbk.
8.	BJBR	Bank Pembangunan Daerah Jawa Barat dan Banten Tbk.

Source: Data Processed (2023)

Based on the table 2 above, the criteria of the research sample size were 8 companies from a total population of 46 Commercial Bank companies listed on the Indonesia Stock Exchange in 2022. The Commercial Bank Company above is a company listed on the Indonesia Stock Exchange for the 2022 period which is included in Bank Group Based on Core Capital (KBMI) 3 and 4, issues and publishes financial reports as well as a stand-alone Sustainability Report using the GRI-G4 standard for 5 years. consecutively in 2018-2022.

This research uses a panel data regression testing model, which is a method used to model the influence of predictor variables (influencing variables or independent variables) on response variables (influenced variables or dependent variables) in several sectors observed from a research object over a certain period. Apart from that, panel data regression is also used to forecast response variables in each existing sector. However, to predict it, it is necessary to forecast the predictor variables in each sector first. Panel data regression analysis and testing will be carried out using the EViews 12 program tools.

4. RESULTS

4.1 Descriptive Statistical Analysis

Table 3. Descriptive Statistical Analysis Result

	SR Disclosure	ESG Rating	Transaction Digital Banking	PBV	ROA
Mean	0.294231	27.282250	3.580000	1.199101	0.016054
Median	0.307692	28.895000	1.880000	0.861483	0.013611
Maximum	0.604396	40.000000	3.270000	4.740204	0.031344
Minimum	0.076923	9.000000	7.720000	0.443609	0.000670

Source: Data processed Eviews 12 (2023)

The SR disclosure variable mean obtained was 0.29, explaining that on average, the banks had a SR Disclosure Index (SRDI) of 0.29, namely 26 disclosure items out of the 91 expected disclosure items. Meanwhile, the maximum value is 0.60, which explains that the highest SRDI is 0.60, namely that there are 55 disclosure items out of the 91 expected disclosure items. In the object of this research, the highest SR disclosure is the activities carried out by PT Bank Tabungan Negara (Persero) Tbk. in 2022. The minimum value of SR disclosure is 0.076, namely there are 7 disclosure items out of the 91 expected disclosure items. In the object of this research, the lowest SR disclosure is activities carried out by PT Bank Negara Indonesia (Persero) Tbk. in 2019.

The ESG Rating variable has a minimum value of 9.00. This value explains the negligible category for the bank, meanwhile, the maximum value is obtained at 40.0 or high risk. The maximum value was obtained by PT Bank Pembangunan Daerah West Java and Banten Tbk. in 2021 with a value of 40.0 or high risk, and a minimum of 9.0 or low risk at PT Bank Negara Indonesia (Persero) Tbk. in 2019. The average ESG rating for banks for 2018-2022 is 28.9, which means that banks are generally in the medium risk category or can be interpreted as implementing ESG practices that provide sustainability and ethical impacts in investment decision making, namely: ESG which is a factor in the preparation of ESG scores not being optimally carried out by commercial banks in Indonesia.

The digital banking transaction variable has a mean of 3.58, which explains that the average digital banking transaction for the bank that was the object of research was IDR 35.775 billion during 2018-2022, with a minimum transaction value of 7.72 or IDR 772 billion at PT Bank Pembangunan. West Java and Banten Tbk. in 2020 where this value fell by -54% from the previous year's digital transaction value. Meanwhile, the maximum value was 3.27 or IDR 326.552 billion obtained by PT Bank Mandiri (Persero) Tbk. in 2020, or an increase of 4% from the previous year.

The PBV has a mean value of 1.2. This means that the average company value in this study has a PBV of more than 1 (> 1) or has a higher share price (overvalued) relative to the company's book value. Meanwhile, the maximum value of 4.74 was obtained by PT Bank Central Asia Tbk. in 2019. In contrast to PT Bank Central Asia Tbk., PT Bank OCBC NISP Tbk. was undervalued in 2021 with a PBV value of 0.44, even though it posted a net profit of IDR 2.5 trillion, an increase of 20% from the previous year's net profit of IDR 2.1 trillion. Meanwhile, ROA variable has the mean value of 0.016 or 1.6%, which means that the Composite Rating according to the bank's health

level by the OJK is at Rank 1 (PK-1). The minimum and maximum ROA were obtained sequentially by PT Bank Tabungan Negara (Persero) Tbk. in 2019 it was 0.000670 or 0.07% and PT Bank Central Asia Tbk. of 0.031 or 3.1% in 2022.

4.2 Regression Model Selection Test

This research has three dependent variables, one independent variable and one intervening variable, so that in conducting data analysis, two tests were carried out for direct effects and one test for indirect effects between variables. In the direct effect test, Structure I, to test the influence between SR Disclosure, ESG Rating, Digital Banking Transactions and ROA, and Structure II, to test influence between SR Disclosure, ESG Rating, Digital Banking Transactions, ROA and PBV. Meanwhile, for indirect effects, a path analysis is carried out.

The selection of panel data regression estimates is carried out using the Chow test, Hausman test and Lagrange multiplier test to find out which estimation model is the best. The estimation models in question are the common effect model, fixed effect model and random effect model. The following are the results of the panel data regression estimation:

Table 4. Panel Data Regression Model Selection Result

Testing	Hypothesis	Structure I Result	Structure II Result
Chow Test	Common Effect Model vs Fixed Effect Model	Fixed Effect Model	Fixed Effect Model
Hausman Test	Random Effect Model vs Fixed Effect Model	Random Effect Model	Fixed Effect Model
LM Test	Common Effect Model vs Random Effect Model	Random Effect Model	Not tested

Source: Data processed Eviews 12 (2023)

4.3 Normality Test

Based on the normality test Structure I results; the probability is 0.577895 with a significance level of $0.57 > 0.05$. Meanwhile, based on the normality test Structure II results, a probability of 0.351088 was obtained with a significance level of $0.35 > 0.05$. So, it can be concluded that the results of the normality test for both Structure I and II are normally distributed.

4.4 Multicollinearity Test

Based on the test results between independent variables, the Pearson product moment r correlation coefficient between variables has a correlation value of < 0.8 , so it can be concluded that there is no multicollinearity. The following are the results of the multicollinearity test Structure I and II:

Table 5. Multicollinearity Test Structure I and II Result

Variable	Structure I			Structure II			
	SR Disclosure	ESG Rating	Digital Banking Transcation	SR Disclosure	ESG Rating	Digital Banking Transcation	ROA
SR Disclosure	1.000000	0.063631	-0.243286	1.000000	-0.340111	-0.306023	-0.221909
ESG Rating	0.063631	1.000000	-0.196505	-0.340111	1.000000	0.152154	0.175418
Digital Banking Transcation	-0.243286	-0.196505	1.000000	-0.306023	0.152154	1.000000	0.513675
ROA				-0.022191	0.175418	0.513675	1.000000

Source: Data processed Eviews 12 (2023)

4.5 Heteroscedasticity Test

The results of the heteroscedasticity test for Structure I and II state that all independent variables, have a probability of > 0.05, so there is no heteroscedasticity problem. The following are the results of the heteroscedasticity test Structure I and II:

Table 6. Heteroscedasticity Test Structure I and II

Variable	Structure I Probability	Structure II Probability
SR Disclosure	0.1485	0.8979
ESG Rating	0.6402	0.7489
Digital Banking Transaction	0.6663	0.0622
ROA	Not assessed	0.0622

Source: Data processed Eviews 12 (2023)

4.6 Goodness of Fit Test

4.6.1 Coefficient of determinant R2 (R-Square)

The Adjusted R-squared value for Structure I is 0.137095. This means that the independent variables, namely SR Disclosure, ESG Rating and Digital Banking Transactions can explain the dependent variable ROA is 0.137 or 13.7% while the remaining 86.3% is explained by other variables. Meanwhile, Structure II, the Adjusted R-squared value is 0.977914. This means that the independent variables, namely SR Disclosure, ESG Rating and Digital Banking Transactions and ROA, together can explain the dependent variable PBV of 0.98 or 98% while the remaining 2% is explained by other variables.

4.6.2 F-Statistic Test

The results of the F statistical test for Structure I, were obtained with a probability of F of 0.040201 < 0.05, meaning, all independent variables, namely SR Disclosure, ESG Rating and Digital

Banking Transactions, together have a significant effect on ROA. Meanwhile, in Structure II, the results of the F statistical test were obtained with a probability of $F 0.0000 < 0.05$, meaning that all independent variables, namely SR Disclosure, ESG Rating, Digital Banking Transactions and ROA together have a significant effect on the PBV.

4.7 Hypothesis Test (t)

Table 7. Hypothesis Test (t) Result Structure I and II

Influence Between Variables	Probability	t-stastic (t-table = 1.6)	Results
Structure I			
The effect of SR Disclosure on ROA	0.1212	1.587324	has no positive and significant effect
The effect of ESG Rating on ROA	0.0193	2.449631	has a positive and significant effect
The effect of Digital Banking Transactions on ROA	0.0500	2.023787	has a positive and significant effect
Structure II			
The effect of ROA on PBV	0.3298	0.991797	has no positive and significant effect
The effect of SR Disclosure on PBV	0.0001	4.755324	has a positive and significant effect
The effect of ESG Rating on PBV	0.4701	0.732261	has no positive and significant effect
The effect of Digital Banking Transactions on PBV	0.7155	0.368256	has no positive and significant effect

Source: Data processed Eviews 12 (2023)

The t-test result for Structure I shows that the SR disclosure has no positive and significant effect on the ROA. Meanwhile ESG rating and digital banking transactions has positive and significant effect on the ROA. Furthermore, the t-test result for Structure II shows that the ROA, ESG rating and digital banking has no positive and significant effect of PBV. Meanwhile, SR disclosure has positive and significant effect on PBV.

4.8 Path Analysis

Based on the Sobel test, the SR Disclosure has no significant effect on PBV through ROA in Commercial Banks in Indonesia. That means indirectly, ROA is unable to mediate the influence of SR Disclosure on PBV. Meanwhile, the ESG Rating and Digital Banking Transactions has a significant effect on PBV through ROA in Commercial Banks in Indonesia. That means indirectly, ROA can mediate the influence of the ESG Rating and Digital Banking Transactions on PBV. The findings of path analysis using the Sobel test are as follows:

Table 8. Sobel Test Result

Indirect Influence Effect	Calculated t Value (t-table = 1.6)	Result
The effect of SR Disclosure on PBV through ROA	1.42	unable to mediate
The effect of ESG Rating on PBV through ROA	3.14	able to mediate
The effect of Digital Banking Transactions on PBV through ROA	1.60	able to mediate

Source: Data processed author (2023)

5. DISCUSSION and CONCLUSION

One way a company shows its commitment to social and environmental issues is through Sustainability Reporting (SR) disclosures. Company management runs a business that pays attention to three important aspects, namely planet, people, and profit, with the aim of increasing public trust in the hope of having an impact on increasing company value. Facts prove that the mindset of investors is starting to shift, from only prioritizing economic aspects or profit, to considering people and planet aspects as important things for assessing a business. In addition, investors assess that SR disclosures made by companies are the basis for consideration in making investment decisions.

Based on this explanation, the results of this research are in line with the agency theory and signaling theory. Management carries out sustainability business activities and discloses them publicly through credible publication media such as the company's official website, organizational websites such as IDX, in order to provide positive signals to investors, so that SR can change the market assessment of the company for the better. This is in line with Lyan et al. (2021) Kurniawan et al. (2018), and Hidayat (2021).

According to this research, ESG ratings do not have an effect and positive on company value. This might be because, integrating ESG aspects requires sufficient resources, both financial and expert staff. Due to limited resources, companies have not implemented ESG practices optimally, so they have not been able to demonstrate their involvement in sustainable business practices, so stakeholders are skeptical about the company's ESG rating and do not believe that entrepreneurs have implemented sustainable business practices in accordance with the standards applied. The results of this research do not support legitimacy theory, which states that company activities are able to influence the way stakeholders see the company. It could be that other variables have an influence, or only some of the ESG aspects have an influence on company value. Jeanice & Kim (2023) and Ponce & Wibowo's (2023) findings prove that only some ESG practices have an effect on company value and the rest have no effect. Based on these findings, the author argues that Bowen's (1953) article is valid in defining CSR as a company's voluntary commitment to sustainable development that exceeds legal criteria. So, if entrepreneurs are unwilling to engage in activities that promote sustainable business, achieving the aim of acquiring sustainable operational standards, such as those used to assess the ESG rating methodology, would be challenging.

As for digital banking transactions, this research proves that, although the number of digital banking transactions increases every year, it does not affect company value. Based on data, this

is caused by uneven digital banking transaction activities. For example, the total number of Automated Teller Machine (ATM) transactions from the eight banks in this research sample was the highest compared to Mobile Banking and Electronic Data Capture (EDC) transactions. This could be due to digital banking transaction activities not running simultaneously with infrastructure development that helps digital banking transaction activities. Such as limited ATM outlets, unstable internet networks in some areas, administration costs which are still considered expensive for some groups, and lack of support from business actors in providing digital banking transaction tools that are easily accessible to consumers, as well as uneven knowledge regarding the use of transactions. digital banking in society. The results of this study are in line with research by Moridu et al. (2020) and Fernando & Dharmastuti (2021).

This research proves that SR disclosure does not have a significant and positive effect on ROA, which means that sustainable business activities carried out by the company have no effect on the company's profit growth. The reason is, among other things, because in Indonesia, based on BI and OJK, only one SR reporting standard is recognized, namely GRI. Meanwhile, the nature of the business activities of each company operating in Indonesia is different, such as financial institutions, banking, mining, communications, and so on. Furthermore, some SR disclosure indicators, such as those in the environmental category (EN-14), states, "number of species included in national conservation data and habitats in affected areas operations, based on the risk of extinction," are out of line with the nature of the company's industry because GRI standards are general in nature. This category is not in accordance with the business nature of the banking industry and is difficult to fulfill. Things like this are what cause the SDRI value of a company to be low because it is unable to apply these activities to the implementation of its sustainable business activities. The lack of uniformity in running a sustainable business, between economic, environmental, and social aspects in one the company makes SR disclosures not optimal. Furthermore, the company's sustainable business activities should be able to increase the company's assets, both tangible and intangible. However, reporting of intangible assets from the financial reporting side (SAK & IFRS) is only goodwill and tends to be used as a periodic expense. (Tarigan & Samuel, 2015). This is in line with this research, Hastalona & Sadalia (2021), Tarigan & Samuel (2015), and Kusumawardani's (2019).

Based on the analysis, ESG rating has a positive and significant effect on ROA. ESG rating is the result of an evaluation of the company's management commitment and the company's concrete actions in dealing with ESG issues through various company policies and work programs. Because the ESG rating of commercial banks listed on the IDX is published publicly, therefore, this can be used as a positive signal for the market, especially potential investors. According to signaling theory, ESG disclosure, including ESG ratings, can be a positive signal for investors. (Engelhardt et al., 2021). This is in line with research by Pulino et al. (2022), Husada & Handayani (2016), Almeyda & Darmansya (2019), and Zhou et al. (2022).

As for digital banking transactions, it has a positive and significant effect on ROA. In this case, banks see financial technology (fintech) as something that influences their financial performance, because the development of digital banking transactions makes it easier for customers to apply for loans without collateral, make transactions anywhere and anytime. This increases the growth of customer credit to banks and simultaneously increases bank profits, one of which is through fee-based income contributions from digital banking transactions. Therefore, many banks are implementing digital banking optimally by increasing infrastructure development and maintenance. The development of fintech has been welcomed positively by investors, even though large investments are needed to build technological infrastructure, banks are competing to improve customer service in digital form. This research is in line with Wijayanti et al. (2021) and Otieno (2020).

Based on the research results, it is stated that ROA does not have a positive and significant effect on PBV. The ROA describes the profitability factor (earnings) which reflects the health level of commercial banks. (OJK, 2016). Significantly, the level of bank health has an influence on increasing company value. However, there was a time when the company value had no effect on the company's performance because there were anomalous factors such as the Covid-19 pandemic, massive business closures, increasing unemployment which reduced people's purchasing power, which led to a decline in company income. Furthermore, due to income loss, many people are unable to pay their obligations, resulting in rising levels of bad credit or Non-Performing Loans (NPLs) in banks. As a result, investors recognise that profit is no longer the sole indicator of a company's health, and that other aspects must be considered. Such as management resilience in dealing with pandemics, implementing sustainable economics so that businesses survive in the long term, and others. This is in line with Sihombing et al. (2023a), Sihombing et al. (2023b), Parahdila et al. (2022), Kharisma et al. (2022), and Saputri et al. (2022).

ROA is unable to mediate the effect of SR disclosure on PBV, because SR is a stand-alone report and is separate from the financial reports. Financial reports are able to display a company's profit and loss which is one of the standards for company performance based on financial reporting standards such as PSAK and IFRS, while SR stands alone which shows a company's sustainable business activities based on GRI standards. It is proven in this research, as explained in the discussion of the results of hypotheses 1, 4 and 7, that investors no longer see profit as the only thing that can provide a positive signal, but also consider people and planet. The results of this research are in line with the research of Kharisma et al. (2022), Santoso et al. (2023), and Parahdila et al. (2022).

Compared to other variable, ROA is able to mediate the influence of ESG ratings on PBV, because in running a sustainable business, companies need capital to meet the standards set by rating agents, such as Sustainalytics. So, there is an economic tradeoff between the capital provided by the company to carry out sustainable business activities to obtain a good ESG rating. These results are in line with signaling and legitimacy theory according to Suchman (1995) which states that an entity's actions are desirable, appropriate, or appropriate within some system of socially constructed norms, values, beliefs, and definitions. ESG rating is information generally obtained by stakeholders where exposure to material ESG risks faced by the company is informed and becomes proof of the company's commitment and real actions in dealing with ESG issues through various company policies and work programs. Furthermore, this study is in line with research by Zhou et al. (2022), Aditama (2022), Lyan et al. (2021), and Yoon et al. (2018).

The result of this research proves that ROA is able to mediate digital banking transactions on PBV. This is because digital banking transactions make it easier for customers to make transactions, thereby increasing potential sources of income for banks such as fee-based income. Because it makes it easier for customers to make transactions, the higher the number of transactions carried out by customers using digital, the bank is able to expand its market share and expand its product range efficiently, which reduces bank operational costs and thus increases profitability. (Arofany & Tandika, 2019). This convenience and the increase in services that make it easier for customers to connect with banks can provide a positive signal to investors and potential investors to provide their investments to the bank, thereby increasing company value. In addition, the results of this research are in line with signaling and agency theory which states that management as an agent is contracted by shareholders who act as principals and work to fulfill the interests of shareholders. The results of this research is in line with research by Fernando & Dharmastuti (2021), Arofany & Tandika (2019), and Okon & Amaegberi (2018).

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